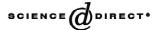


Available online at www.sciencedirect.com



JOURNAL OF CHROMATOGRAPHY A

Journal of Chromatography A, 1001 (2003) 87-228

www.elsevier.com/locate/chroma

CUMULATIVE SUBJECT INDEX

J. CHROMATOGR. A VOLS. 952-1000



Accelerated solvent extraction

see Pressurized liquid extraction

Accuracy

Quantitative accuracy in the gas chromatographic analysis of solvent mixtures 985(2003)21

Advances in methodology for the validation of methods according to the International Organization for Standardization. Application to the determination of benzoic and sorbic acids in soft drinks by high-performance liquid chromatography 992(2003)11

Matrix effects in (ultra)trace analysis of pesticide residues in food and biotic matrices (Review) 1000(2003)181

Acid-base equilibria

Modeling of retention behavior in capillary electrochromatography from chromatographic and electrophoretic data 959(2002)241

New approach to characterise physicochemical properties of solid substrates by inverse gas chromatography at infinite dilution. III. Determination of the acid-base properties of some solid substrates (polymers, oxides and carbon fibres): a new model 969(2002)37

Influence of mobile phase acid-base equilibria on the chromatographic behaviour of protolytic compounds (Review) 982(2002)1

Acid-base interactions

Characterisation of the surface Lewis acid-base properties of poly(butylene terephthalate) by inverse gas chromatography 969(2002)111

Characterisation of the surface Lewis acid-base properties of the components of pigmented, impact-modified, bisphenol A polycarbonate-poly(butylene terephthalate) blends by inverse gas chromatography-phase separation and phase preferences 969(2002)119

Characterisation of the chromatographic properties of a silica–polypyrrole composite stationary phase by inverse liquid chromatography 969(2002)167

Acid-base properties

Effect of moisture on the surface free energy and acid-base properties of mineral oxides 969(2002)59

Acidity

Determination of total acidity and of divalent cations by ion chromatography with n-hexadecylphosphocholine as the stationary phase 956(2002)139

Retention of ionizable compounds in high-performance liquid chromatography. 14. Acid-base pK values in acetonitrile-water mobile phases 964(2002)55

Comparison of the acidity of residual silanol groups in several liquid chromatography columns 986(2003)33

Acoustic demixing

Acoustic field assisted demixing of aqueous two-phase systems 977(2002)163

0031-9673/02/\$ – see front matter © 2003 Elsevier Science B.V. All right reserved doi:10.1016/S0031-9673(03)01585-1

Activation energy

Kinetic study of the polymerization of α -amino acid N-carboxyanhydrides in aqueous solution using capillary electrophoresis 952(2002)239

Thermodynamics and kinetics of solute transfer in reversedphase liquid chromatography 987(2003)3

Kinetic analysis and subambient temperature on-line on-column derivatization of an active aldehyde 995(2003)67

Activation volume

Thermodynamics and kinetics of solute transfer in reversedphase liquid chromatography 987(2003)3

Activity coefficients

Gas chromatographic determination of vapour pressure and related thermodynamic properties of monoterpenes and biogenically related compounds 955(2002)105

Applications of inverse gas chromatography in the study of liquid crystalline stationary phases 969(2002)193

Thermodynamic study of two different chewing-gum bases by inverse gas chromatography 996(2003)189

Adduct ions

Adduct formation in electrospray ionization mass spectrometry. II. Benzoic acid derivatives 985(2003)531

Admicelles

Concentration of chlorophenols in water with sodium dodecylsulfate–γ-alumina admicelles for high-performance liquid chromatographic analysis 972(2002)205

Adsorbents

see also Affinity adsorbents, Sorbents and Stationary phases

Confocal Raman and fluorescence spectroscopy applied to polymeric chromatographic adsorbent particles 954(2002)151

Sensitive indoor air monitoring of monoterpenes using different adsorbents and thermal desorption gas chromatography with mass-selective detection 962(2002)175

Study on protein adsorption kinetics to a dye-ligand adsorbent by the pore diffusion model 964(2002)35

Fluidisation and dispersion behaviour of small high density pellicular expanded bed adsorbents 964(2002)77

Hypercross-linked polystyrene and its potentials for liquid chromatography: a mini-review (Review) 965(2002)65

Gradient elution in normal-phase high-performance liquid chromatographic systems 965(2002)239

Use of synthetic adsorbents in preparative normal-phase liquid chromatography 989(2003)19

Adsorption

Comparison of histidine-tag capture chemistries for purification following chemical extraction 953(2002)111

Steric mass-action model for dye-ligand affinity adsorption of protein 957(2002)89

Stochastic simulation of the partition mechanism with a heterogeneous surface phase 959(2002)49

Evaluation of extended light path capillary and etched capillary for use in open tubular capillary electrochromatography 961(2002)285

Analysis of diffusion models for protein adsorption to porous anion-exchange adsorbent 962(2002)29

Study on protein adsorption kinetics to a dye-ligand adsorbent by the pore diffusion model 964(2002)35

Hydrophobic interaction ligand selection and scale-up of an expanded bed separation of an intracellular enzyme from Saccharomyces cerevisiae 968(2002)121

New approach to characterise physicochemical properties of solid substrates by inverse gas chromatography at infinite dilution. II. Study of the transition temperatures of poly(methyl methacrylate) at various tacticities and of poly(methyl methacrylate) adsorbed on alumina and silica 969(2002)27

Acid-base and surface energy characterization of grafted polyethylene using inverse gas chromatography 969(2002)73

Effect of emulsifiers on surface properties of sucrose by inverse gas chromatography 969(2002)97

Surface energy characteristics of toner particles by automated inverse gas chromatography 969(2002)215

Adsorption of poly(methyl methacrylate) and poly(vinyl chloride) blends onto polypyrrole. Study by X-ray photoelectron spectroscopy, time-of-flight static secondary ion mass spectroscopy, and inverse gas chromatography 969(2002)273

Determination of surface heterogeneity profiles on graphite by finite concentration inverse gas chromatography 969(2002)323

DNA-induced inter-particle cross-linking during expanded bed adsorption chromatography. Impact on future support design 971(2002)73

Time-resolved determination of surface diffusion coefficients for physically adsorbed or chemisorbed species on heterogeneous surfaces, by inverse gas chromatography 983(2003)177

Enhancement of anion-exchange chromatography of DNA using compaction agents 984(2003)215

Comparison of the differential isosteric adsorption enthalpies and entropies calculated from chromatographic data 986(2003)89

Direct enzyme adsorption from an unclarified microbial feedstock using suspended bed chromatography 989(2003)109

Interaction of immunoglobulin G with N,N,N',N'-ethylenediaminetetramethylenephosphonic acid-modified zirconia 989(2003)131

Adsorptive membrane chromatography for purification of plasmid DNA 989(2003)165

Analysis of protein adsorption on regenerated cellulose-based immobilized copper ion affinity membranes 996(2003)53

Adsorption, water

Effect of moisture on the surface free energy and acid-base properties of mineral oxides 969(2002)59

Adsorption/desorption rate constant

Heterogeneous catalysis on solids of gases diffusing through a liquid layer, studied by inverse gas chromatography 977(2002)107

Adsorption energy distributions

Determination of single component isotherms and affinity energy distribution by chromatography 988(2003)185

Effect of the mobile phase composition on the isotherm parameters and the high concentration band profiles in reversed-phase liquid chromatography 995(2003)37

Adsorption equilibria

Study of the adsorption equilibria of the enantiomers of 1-phenyl-1-propanol on cellulose tribenzoate using a microbore column 953(2002)55

Comparison of the adsorption equilibrium of a few low-molecular mass compounds on a monolithic and a packed column in reversed-phase liquid chromatograph 978(2002)81

Modeling of the salt effects on hydrophobic adsorption equilibrium of protein 992(2003)29

Adsorption isotherms

Study of the adsorption equilibria of the enantiomers of 1-phenyl-1-propanol on cellulose tribenzoate using a microbore column 953(2002)55

Measurement and modeling of the equilibrium behavior of the Tröger's base enantiomers on an amylose-based chiral stationary phase 955(2002)35

Adsorption equilibria of butyl- and amylbenzene on monolithic silica-based columns 957(2002)111

Characterization of polyarylamide fibers by inverse gas chromatography 962(2002)153

Energetic heterogeneity of the surface of a molecularly imprinted polymer studied by high-performance liquid chromatography 964(2002)99

Use of inverse gas chromatography to determine thermodynamic parameters of aroma-starch interactions 969(2002)9

Experimental adsorption isotherms based on inverse gas chromatography 969(2002)81

Determination of dependencies between the specific retention volumes and the parameters characterising adsorbent properties 969(2002)87

Use of inverse gas chromatography to characterize cotton fabrics and their interactions with fragrance molecules at controlled relative humidity 969(2002)103

Heterogeneous catalysis on solids of gases diffusing through a liquid layer, studied by inverse gas chromatography 977(2002)107

Comparison of the adsorption equilibrium of a few low-molecular mass compounds on a monolithic and a packed column in reversed-phase liquid chromatograph 978(2002)81

Surface area determination of a polystyrene-divinylbenzene chromatographic packing material via ionic amphiphile adsorption from aqueous mobile phases and application of Gouy-Chapman theory 982(2002)49

Study of the mass transfer kinetics in a monolithic column 983(2003)51

Numerical determination of the competitive isotherm of enantiomers 986(2003)207

Determination of single component isotherms and affinity energy distribution by chromatography 988(2003)185

Influence of pressure on the chromatographic behavior of insulin variants under nonlinear conditions 988(2003)205

Linear two-step gradient counter-current chromatography. Analysis based on a recursive solution of an equilibrium stage model 989(2003)31

Modeling of adsorption in hydrophobic interaction chromatography systems using a preferential interaction quadratic isotherm 989(2003)47

Evaluation of protein-A chromatography media 989(2003)139

Influence of the particle porosity on chromatographic band profiles 989(2003)207

Theoretical and experimental study of binary perturbation peaks with focus on peculiar retention behaviour and vanishing peaks in chiral liquid chromatography 991(2003)31

Effect of the mobile phase composition on the isotherm parameters and the high concentration band profiles in reversed-phase liquid chromatography 995(2003)37

Adsorption kinetics

Adsorption kinetics of β -lactoglobulin on a polyclonal immunochromatographic support 953(2002)17

Adsorption transition

Molecular modelling of chain end effects in separating oligomers by reversed-phase gradient polymer elution chromatography; adsorption transition as revealed by a self-consistent-field theory for polymer adsorption 959(2002)37

Aerobic composting

Gas chromatography-mass spectrometry as a tool for estimating odour concentrations of biofilter effluents at aerobic composting and rendering plants 970(2002)259

Aerosols

Capillary electrophoretic separation of dicarboxylic acids in atmospheric aerosol particles 990(2003)133

Affinity adsorbents

see also Immunoadsorbents and Stationary phases

Purification of the specific immunoglobulin G_1 by immobilized metal ion affinity chromatography using nickel complexes of chelating porous and nonporous polymeric sorbents based on poly(methacrylic esters). Effect of polymer structure 954(2002)115

Galactosyl-biomimetic dye-ligands for the purification of *Dactylium dendroides* galactose oxidase 954(2002)137

Steric mass-action model for dye-ligand affinity adsorption of protein 957(2002)89

Chromatographic characterisation of an estrogen-binding affinity column containing tetrapeptides selected by a combinatorial-binding approach 966(2002)71

Cyanogen bromide activation and coupling of ligands to diolcontaining silica for high-performance affinity chromatography. Optimization of conditions 971(2002)95

Evaluation and applications of a new dye affinity adsorbent 972(2002)21

In flow activation of diol-silica with cyanogen bromide and triethylamine for preparing high-performance affinity chromatographic columns 984(2003)9

Direct chromatographic capture of enzyme from crude homogenate using immobilized metal affinity chromatography on a continuous supermacroporous adsorbent 986(2003)275

Evaluation of protein-A chromatography media 989(2003)139

 κ -Carrageenan as a new smart macroaffinity ligand for the purification of pullulanase 998(2003)103

Experimental comparison of three monoclonal antibodies for the class-selective immunoextraction of triazines. Correlation with molecular modeling and principal component analysis studies 999(2003)3

Affinity capillary electrophoresis

Capillary electrophoretic enzyme immunoassay with electrochemical detection for cortisol 966(2002)187

Investigations of cyclophilin interactions with oligopeptides containing proline by affinity capillary electrophoresis 982(2002)275

Interaction between netropsin and double-stranded DNA in capillary zone electrophoresis and affinity capillary electrophoresis 982(2002)285

Affinity chromatography

see also Immobilized metal affinity chromatography and Immunoaffinity chromatography

Current and prospective applications of metal ion-protein binding (Review) 988(2003)1

In vitro comparison of complementary interactions between synthetic linear/branched oligo/poly-L-lysines and tissue plasminogen activator by means of high-performance monolithic-disk affinity chromatography 992(2003)109

Affinity electrochromatography

Affinity electrochromatography of acidic drugs using a liposome-modified capillary 990(2003)281

Affinity partitioning

Affinity partitioning for membrane purification exploiting the biotin–NeutrAvidin interaction. Model study of mixed liposomes and membranes 971(2002)117

Separation of enzymes by sequential macroaffinity ligandfacilitated three-phase partitioning 995(2003)127

Agarose

Confocal Raman and fluorescence spectroscopy applied to polymeric chromatographic adsorbent particles 954(2002)151

Agarose-coated steel beads

Particle size and density distributions of two dense matrices in an expanded bed system 977(2002)173

Aggregate formation

Towards the understanding of molecular mechanisms in the early stages of heat-induced aggregation of β -lactoglobulin AB 970(2002)275

Agitation methods

Gas chromatography—mass spectrometry determination of the migration of phthalate plasticisers from polyvinyl chloride toys and childcare articles 983(2003)237

Air analysis

C₂-C₈ Hydrocarbon measurement and quality control procedures at the Global Atmosphere Watch Observatory Hohenpeissenberg 953(2002)175

Time-weighted average sampling of airborne n-valeraldehyde by a solid-phase microextration device 954(2002)191

Selective stationary phase for solid-phase microextraction analysis of sarin (GB) 954(2002)217

Gas chromatographic determination of glutaraldehyde in the workplace atmosphere after derivatization with *O*-(2,3,4,5,6-pentafluorobenzyl)hydroxylamine on a solid-phase microextraction fibre 955(2002)117

Dynamic sonication-assisted solvent extraction of organophosphate esters in air samples 957(2002)227

Minimization of water vapor interference in the analysis of nonmethane volatile organic compounds by solid adsorbent sampling 958(2002)219

Sensitive indoor air monitoring of monoterpenes using different adsorbents and thermal desorption gas chromatography with mass-selective detection 962(2002)175

Dynamic versus static sampling for the quantitative analysis of volatile organic compounds in air with polydimethylsiloxane—Carboxen solid-phase microextraction fibers 963(2002)49

Quantification of volatile sulfur compounds in complex gaseous matrices by solid-phase microextraction 963(2002)57

Determination of polychlorinated biphenyl compounds in indoor air samples 963(2002)65

Continuous permeation of analytes through a thin poly(dimethylsiloxane) membrane followed by sorbent trapping for their gas chromatographic monitoring 964(2002)1

Application of a pulse-discharge helium detector to the determination of neon in air and water 968(2002)263

Sub-second thermal desorption of a micro-sorbent trap for the analysis of ambient volatile organic compounds 976(2002)39

Determination of volatile organic compounds in ambient air. Comparison of methods 976(2002)369

Using different types of capillary chromatographic columns as denudation traps: a comparison of sorption properties 977(2002)115

Potential of electrophilic epoxide reactions for the monitoring of acid gases in the environment 977(2002)251

Laser-induced fluorescence and UV detection of derivatized aldehydes in air samples using capillary electrophoresis 979(2002)409

Determination of maleic anhydride in occupational atmospheres 982(2002)261

Determination of dithiocarbamate pesticides in occupational hygiene sampling devices using the isooctane method and comparison with an automatic thermal desorption (ATD) method 984(2003)81

Development of a gas chromatography-mass spectrometry method for the determination of household insecticides in indoor air 985(2003)147

Lichens as polycyclic aromatic hydrocarbon bioaccumulators used in atmospheric pollution studies 985(2003)185

Trace analysis of benzene, toluene, ethylbenzene and xylene isomers in environmental samples by low-pressure gas chromatography-ion trap mass spectrometry 985(2003)191

"Cold" solid-phase microextraction method for the determination of volatile halocarbons present in the atmosphere at ultra-trace levels 988(2003)167

Determination of carbon monoxide, methane and carbon dioxide in refinery hydrogen gases and air by gas chromatography 989(2003)277

Capillary electrophoretic separation of dicarboxylic acids in atmospheric aerosol particles 990(2003)133

Analysis of water extracts from airborne dust samples by capillary isotachophoresis 990(2003)303

Determination of organophosphate esters in air samples by dynamic sonication-assisted solvent extraction coupled on-line with large-volume injection gas chromatography utilizing a programmed-temperature vaporizer 993(2003)103

Measurement of toxic volatile organic compounds in indoor air of semiconductor foundries using multisorbent adsorption/ thermal desorption coupled with gas chromatography-mass spectrometry 996(2003)225

Alkyl chain structure

Comparison of model monomeric and polymeric alkyl stationary phases on silica using sum-frequency spectroscopy 984(2003)19

Alkyl-diol silica columns

Bio-compatible in-tube solid-phase microextraction capillary for the direct extraction and high-performance liquid chromatographic determination of drugs in human serum 963(2002)325

Alkyl-silica columns

Column selectivity in reversed-phase liquid chromatography. I. A general quantitative relationship 961(2002)171

Alkyl-silica columns, type B

Column selectivity in reversed-phase liquid chromatography. IV. Type-B alkyl-silica columns (Review) 1000(2003)757

Allium spp.

Aroma analysis of fresh and preserved onions and leek by dual solid-phase microextraction-liquid extraction and gas chromatography-mass spectrometry 963(2002)89

Alumina

New approach to characterise physicochemical properties of solid substrates by inverse gas chromatography at infinite dilution. II. Study of the transition temperatures of poly(methyl methacrylate) at various tacticities and of poly(methyl methacrylate) adsorbed on alumina and silica 969(2002)27

New approach to characterise physicochemical properties of solid substrates by inverse gas chromatography at infinite dilution. III. Determination of the acid-base properties of some solid substrates (polymers, oxides and carbon fibres): a new model 969(2002)37

Alzheimer's disease

Nanoscale liquid chromatography and capillary electrophoresis coupled to electrospray mass spectrometry for the detection of amyloid- β peptide related to Alzheimer's disease 974(2002)135

Amino acid sequencing

Characterisation of botulinum toxins type A and B, by matrixassisted laser desorption ionisation and electrospray mass spectrometry 970(2002)95

Ammi visnaga

Determination of khellin and visnagin in *Ammi visnaga* fruits by capillary electrophoresis 954(2002)291

Ampelopsis grossedentata

Purification of (+)-dihydromyricetin from leaves extract of *Ampelopsis grossedentata* using high-speed countercurrent chromatograph with scale-up triple columns 973(2002)217

Amperometric detection

see also Electrochemical detection and Pulsed amperometric detection

New approach to the simultaneous analysis of catecholamines and tyrosines in biological fluids 987(2003)349

Amphiphilic solute

Salt effects on the interaction of an amphiphilic model molecule with immobilized phosphatidylcholine monolayers 977(2002)185

Ampholytes

Capillary electrophoretic separations of proteins using carrier ampholytes 959(2002)289

Extension of separation range in capillary isoelectric focusing for resolving highly basic biomolecules 979(2002)271

Anderson-type complexes

Capillary electrophoretic determination of Ga(III) based on the formation of a heteropolyoxomolybdate complex 993(2003)211

Andrographis paniculata

Separation of andrographolide and neoandrographolide from the leaves of *Andrographis paniculata* using high-speed countercurrent chromatography 984(2003)147

Anion exchangers

see also Ion exchangers

Ion-exchange separation of proteins by polyallylamine-grafted cellulose gel 955(2002)191

Studies on separation of rare earth elements on various types of anion-exchangers in the $C_3H_7OH-7\ M\ HNO_3$ systems 955(2002)257

Adjustable-capacity anion-exchange separator 956(2002)35

High-performance liquid chromatographic separation of carbohydrates on a stationary phase prepared from polystyrene-based resin and novel amines 961(2002)89

DNA-induced inter-particle cross-linking during expanded bed adsorption chromatography. Impact on future support design 971(2002)73

Temperature influence on the dynamic binding capacity of a monolithic ion-exchange column 987(2003)159

Annular chromatography

Fiber optic multi-channel protein detector for use in preparative continuous annular chromatography 967(2002)183

Continuous purification of a clotting factor IX concentrate and continuous regeneration by preparative annular chromatography 972(2002)115

Anthriscus sylvestris

Volatile components from Anthriscus sylvestris (L.) Hoffm. 966(2002)233

Apocynaceae

High-performance liquid chromatographic, capillary electrophoretic and capillary electrophoretic-electrospray ionisation mass spectrometric analysis of selected alkaloid groups (Review) 967(2002)85

Apparent enantioselectivity

Enantioseparation of various amino acid derivatives on a quinine based chiral anion-exchange selector at variable temperature conditions. Influence of structural parameters of the analytes on the apparent retention and enantioseparation characteristics 960(2002)97

Apparent thermodynamics

Enantioseparation of various amino acid derivatives on a quinine based chiral anion-exchange selector at variable temperature conditions. Influence of structural parameters of the analytes on the apparent retention and enantioseparation characteristics 960(2002)97

Aqueous two-phase systems

Affinity partitioning for membrane purification exploiting the biotin–NeutrAvidin interaction. Model study of mixed liposomes and membranes 971(2002)117

Acoustic field assisted demixing of aqueous two-phase systems 977(2002)163

Aqueous two-phase extraction as an effective tool for isolation of geniposide from gardenia fruit 977(2002)239

Protein partitioning in thermoseparating systems of a charged hydrophobically modified ethylene oxide polymer 983(2003)133

Tobacco protein separation by aqueous two-phase extraction 989(2003)119

Arabidopsis thaliana

Extraction and quantitative analysis of 1-aminocyclopropane-1-carboxylic acid in plant tissue by gas chromatography coupled to mass spectrometry 993(2003)79

Comprehensive chemical derivatization for gas chromatography—mass spectrometry-based multi-targeted profiling of the major phytohormones 993(2003)89

Archeological analysis

Mass spectrometric methods prove the use of beeswax and ruminant fat in late Roman cooking pots 968(2002)151

Identification of natural dyes in archeological Coptic textiles by liquid chromatography with diode array detection 989(2003)239

Arrhenius plot

Kinetic analysis and subambient temperature on-line on-column derivatization of an active aldehyde 995(2003)67

Art analysis

Ion chromatography characterization of polysaccharides in ancient wall paintings 968(2002)79

Artifacts

Artifact formation due to ethyl thio-incorporation into silylated steroid structures as determined in doping analysis 954(2002)199

Aspidosperma quebracho-blanco

High-performance liquid chromatographic, capillary electrophoretic and capillary electrophoretic-electrospray ionisation mass spectrometric analysis of selected alkaloid groups (Review) 967(2002)85

Association constants

Quantitative approach for the screening of cyclodextrins by nuclear magnetic resonance spectroscopy in support of chiral separations in liquid chromatography and capillary electrophoresis. Enantioseparation of norgestrel with α -, β - and γ -cyclodextrins 961(2002)257

Astragalus membranaceus

Preparative isolation and purification of two isoflavones from *Astragalus membranaceus* Bge. var. *mongholicus* (Bge.) Hsiao by high-speed counter-current chromatography 992(2003)193

Astragalus mongholicus

Preparative isolation and purification of calycosin from Astragalus membranaceus Bge. var. mongholicus (Bge.) Hsiao by high-speed counter-current chromatography 962(2002)243

At-inlet reaction

Kinetic study of angiotensin converting enzyme activity by capillary electrophoresis after in-line reaction at the capillary inlet 986(2003)303

Atmospheric pressure chemical ionization

see also Interfaces and Mass spectrometry

The potential of organic (electrospray- and atmospheric pressure chemical ionisation) mass spectrometric techniques coupled to liquid-phase separation for speciation analysis (Review) 1000(2003)841

Atmospheric pressure electron capture negative ion-MS

Strategies for the liquid chromatographic-mass spectrometric analysis of non-polar compounds (Review) 1000(2003)549

Atmospheric pressure ionization

see also Interfaces and Mass spectrometry

Liquid chromatography-mass spectrometry and strategies for trace-level analysis of polar organic pollutants (Review) 1000(2003)477

Atmospheric pressure photoionization

Atmospheric pressure photoionization liquid chromatographic—mass spectrometric determination of idoxifene and its metabolites in human plasma 970(2002)155

Strategies for the liquid chromatographic-mass spectrometric analysis of non-polar compounds (Review) 1000(2003)549

Atomic emission detection

Rapid determination of butyltin species in water samples by multicapillary gas chromatography with atomic emission detection following headspace solid-phase microextraction 963(2002)195

Methylmercury determination in biological samples by derivatization, solid-phase microextraction and gas chromatography with microwave-induced plasma atomic emission spectrometry 963(2002)313

Determination of methyl *tert.*-butyl ether and *tert.*-butyl alcohol in seawater samples using purge-and-trap enrichment coupled to gas chromatography with atomic emission and mass spectrometric detection 999(2003)81

Hyphenation and hypernation. The practice and prospects of multiple hyphenation (Review) 1000(2003)325

Atomic force microscopy

Capillary-channeled polymer fibers as stationary phases in liquid chromatography separations 986(2003)17

Atropisomerism

Chromatographic enrichment and enantiomer separation of axially chiral polybrominated biphenyls in a technical mixture 973(2002)123

Automation

Computer-assisted automatic peak recognition and result evaluation for analysis of chlorinated hydrocarbons in environmental samples 957(2002)37

Online coupling of pressurized liquid extraction, solid-phase extraction and high-performance liquid chromatography for automated analysis of proanthocyanidins in malt 958(2002)9

Deferred standards, an on-line qualification, validation and system stability probe for chromatographic assay 958(2002)79

Surface energy characteristics of toner particles by automated inverse gas chromatography 969(2002)215

Intelligent automation of high-performance liquid chromatography method development by means of a real-time knowledge-based approach 972(2002)27

Automated hollow fiber-protected dynamic liquid-phase microextraction of pesticides for gas chromatography-mass spectrometric analysis 985(2003)107

Determination of daidzein and genistein in soybean foods by automated on-line in-tube solid-phase microextraction coupled to high-performance liquid chromatography 986(2003)169

Automated microgradient system for capillary electrochromatography 990(2003)3

Systematic error in automated in-tube solid-phase microextraction 995(2003)1

Determination of endocrine-disrupting compounds in water samples by on-line solid-phase extraction-programmed-temperature vaporisation-gas chromatography-mass spectrometry 998(2003)41

Average linkage dendrogram

Determining orthogonal chromatographic systems prior to the development of methods to characterise impurities in drug substances 988(2003)77

Axial compression

Visualization of bed compression in an axial compression liquid chromatography column 977(2002)213

Reproducible preparative liquid chromatography columns 992(2003)41

Axial dispersion

see also Dispersion

Study of the mass transfer kinetics in a monolithic column 983(2003)51



Bacillus subtilis

Determination of pyridine and adenine nucleotide metabolites in *Bacillus subtilis* cell extract by sweeping borate complexation capillary electrophoresis 989(2003)293

Bacillus thuringiensis

Determination of poly-β-hydroxybutyric acid in *Bacillus* thuringiensis by capillary zone electrophoresis with indirect ultraviolet absorbance detection 973(2002)197

Determination of spore concentration in *Bacillus thuringiensis* through the analysis of dipicolinate by capillary zone electrophoresis 994(2003)207

Background electrolyte composition

see also Buffer composition and Chiral selectors

Increase of sample load without peak deterioration by careful selection of electrolyte in capillary zone electrophoresis 953(2002)227

Eigenmobilities in background electrolytes for capillary zone electrophoresis. I. System eigenpeaks and resonance in systems with strong electrolytes 960(2002)187

The determination of bromide in a local anaesthetic hydrochloride by capillary electrophoresis using direct UV detection 977(2002)265

Sample matrix influence on the choice of background electrolyte for the analysis of bases with capillary zone electrophoresis 979(2002)11

Simultaneous separation of different enantiomeric pairs in capillary electrophoresis by mixing different hemispherodextrins, a very versatile class of receptors 979(2002)137

Analysis of catecholamines by capillary electrophoresis and capillary electrophoresis—nanospray mass spectrometry. Use of aqueous and non-aqueous solutions compared with physical parameters 979(2002)179

Potential of formamide and *N*-methylformamide in nonaqueous capillary electrophoresis coupled to electrospray ionization mass spectrometry. Application to the analysis of β -blockers 979(2002)389

1,3-Dialkylimidazolium-based room-temperature ionic liquids as background electrolyte and coating material in aqueous capillary electrophoresis 985(2003)447

Separation of opiate alkaloids by electrokinetic chromatography with sulfated-cyclodextrin as a pseudo-stationary phase 985(2003)493

Enantiomer separation of *N*-protected amino acids by non-aqueous capillary electrophoresis and high-performance liquid chromatography with *tert*.-butyl carbamoylated quinine in either the background electrolyte or the stationary phase 987(2003)421

Capillary electrophoretic separation of enantiomers in a high-pH background electrolyte by means of the single-isomer chiral resolving agent octa(6-O-sulfo)-y-cyclodextrin 987(2003)459

Quantitation of the enantiomers of ofloxacin by capillary electrophoresis in the parts per billion concentration range for in vitro drug absorption studies 988(2003)135

Capillary electrophoresis of methyl-substituted phenols in acetonitrile 990(2003)35

Capillary electrophoretic separation of dicarboxylic acids in atmospheric aerosol particles 990(2003)133

Determination of ethoxylated bisphenol A dimethacrylate monomers in dental composites by micellar electrokinetic chromatography 990(2003)231

Multivariate optimisation of a cyclodextrin-assisted-capillary zone electrophoretic method for the separation of torasemide and its metabolites 990(2003)271

Performance of capillary gel electrophoretic analysis of oligonucleotides coupled on-line with electrospray mass spectrometry 991(2003)129

Mathematical representation of electrophoretic mobility of basic drugs in ternary solvent buffers in capillary zone electrophoresis 994(2003)191

Modification and validation of the pyromellitic acid electrolyte for the capillary electrophoretic determination of anions 995(2003)217

Bacteria

Use of capillary electrophoresis and laser-induced fluorescence for attomole detection of amino acids 964(2002)243

Analysis of aminofluorescein–fatty acid derivatives by capillary electrophoresis with laser-induced fluorescence detection at the attomole level: application to mycobacterial fatty acids 973(2002)203

Chromatography of microbial cells using continuous supermacroporous affinity and ion-exchange columns 977(2002)27

Band broadening

see also Band profiles and Peak shape

Band broadening caused by the multiple labeling of proteins in micellar electrokinetic chromatography with diode laser-induced fluorescence detection 959(2002)281

Contribution of the polymer standards' polydispersity to the observed band broadening in size-exclusion chromatography 986(2003)1

Simple method for the quantitative examination of extra column band broadening in microchromatographic systems 986(2003)247

Computational fluid dynamics simulations yielding guidelines for the ideal internal structure of monolithic liquid chromatography columns 991(2003)169

Band dispersion

Band dispersion in chromatography—a universal expression for the contribution from the mobile zone 960(2002)7

Band profiles

see also Band broadening and Peak shape

Adsorption equilibria of butyl- and amylbenzene on monolithic silica-based columns 957(2002)111

Repeatability and reproducibility of retention data and band profiles on six batches of monolithic columns 960(2002)19

Influence of the particle porosity on chromatographic band profiles 989(2003)207

Effect of the mobile phase composition on the isotherm parameters and the high concentration band profiles in reversed-phase liquid chromatography 995(2003)37

Bed compression

Visualization of bed compression in an axial compression liquid chromatography column 977(2002)213

Beer

Online coupling of pressurized liquid extraction, solid-phase extraction and high-performance liquid chromatography for automated analysis of proanthocyanidins in malt 958(2002)9

Determination of *E*-2-nonenal by high-performance liquid chromatography with UV detection. Assay for the evaluation of beer ageing 985(2003)395

Determination of stale-flavor carbonyl compounds in beer by stir bar sorptive extraction with in-situ derivatization and thermal desorption—gas chromatography—mass spectrometry 986(2003)101

New aspects of the simultaneous analysis of amino acids and amines as their o-phthaldialdehyde derivatives by high-performance liquid chromatography. Analysis of wine, beer and vinegar 987(2003)311

Determination of biogenic amines as dansyl derivatives in alcoholic beverages by high-performance liquid chromatography with fluorimetric detection and characterization of the dansylated amines by liquid chromatography—atmospheric pressure chemical ionization mass spectrometry 996(2003)103

BET model

Study of the mass transfer kinetics in a monolithic column 983(2003)51

Beverages

see also Beer, Soft drinks, Tea and Wine

Determination of pesticide residues in coconut water by liquid—liquid extraction and gas chromatography with electron-capture plus thermionic specific detection and solid-phase extraction and high-performance liquid chromatography with ultraviolet detection 957(2002)201

Analysis of volatiles of malt whisky by solid-phase microextraction and stir bar sorptive extraction 985(2003)221

Ion-pair high-performance liquid chromatographic determination of biogenic amines and polyamines in wine and other alcoholic beverages 998(2003)235

Binding constants

Chromatographic characterisation of an estrogen-binding affinity column containing tetrapeptides selected by a combinatorial-binding approach 966(2002)71

Binding studies

Temperature influence on the dynamic binding capacity of a monolithic ion-exchange column 987(2003)159

Interaction of immunoglobulin G with N,N,N',N'-ethylenediaminetetramethylenephosphonic acid-modified zirconia 989(2003)131

Adsorptive membrane chromatography for purification of plasmid DNA 989(2003)165

Analysis of protein adsorption on regenerated cellulose-based immobilized copper ion affinity membranes 996(2003)53

Bioactivity

Strategies for the determination of bioactive phenols in plants, fruit and vegetables (Review) 1000(2003)657

Bioautography screening

On-line identification of the antifungal constituents of *Erythrina vogelii* by liquid chromatography with tandem mass spectrometry, ultraviolet absorbance detection and nuclear magnetic resonance spectrometry combined with liquid chromatographic micro-fractionation 974(2002)123

Biomimetic ligands

Galactosyl-biomimetic dye-ligands for the purification of *Dactylium dendroides* galactose oxidase 954(2002)137

Biotic matrices

Determination of nitrated polycyclic aromatic hydrocarbons and their precursors in biotic matrices 982(2002)127

Blue Chitin columns

Blue Chitin columns for the extraction of heterocyclic amines from cooked meat 977(2002)97

Blue Rayon columns

Blue Chitin columns for the extraction of heterocyclic amines from cooked meat 977(2002)97

Boletus permagnificus

Simple method for reversed-phase high-performance liquid chromatographic analysis of fungal pigments in fruit-bodies of Boletales (Fungi) 964(2002)129

Borate complexation

Determination of pyridine and adenine nucleotide metabolites in *Bacillus subtilis* cell extract by sweeping borate complexation capillary electrophoresis 989(2003)293

Brassica napus

Extraction and quantitative analysis of 1-aminocyclopropane-1-carboxylic acid in plant tissue by gas chromatography coupled to mass spectrometry 993(2003)79

Brassica spp.

Separation and purification of glucosinolates from crude plant homogenates by high-speed counter-current chromatography 996(2003)85

Breakthrough

Breakthrough of polymers in interactive liquid chromatography 982(2002)55

Symmetrical (double-speed) static coating for high-resolution gas chromatography column preparation 985(2003)79

Buffer composition

see also Background electrolyte composition and Chiral selectors

Separation and simultaneous determination of water-soluble and fat-soluble vitamins by electrokinetic capillary chromatography 953(2002)257

Novel alkyl-modified anionic siloxanes as pseudostationary phases for electrokinetic chromatography. III. Performance in organic-modified buffers 959(2002)255

Improvement of the long-term stability of polyimide-coated fused-silica capillaries used in capillary electrophoresis and capillary electrochromatography 961(2002)35

Capillary electrophoresis in aqueous-organic media. Ionic strength effects and limitations of the Hubbard-Onsager dielectric friction model 964(2002)213

Determination of ebrotidine and its metabolites by micellar electrokinetic capillary chromatography 976(2002)221

Separation and determination of phenolic compounds by capillary electrophoresis with chemiluminescence detection 978(2002)213

Chiral separation of amino acids by capillary electrophoresis with octyl- β -thioglucopyranoside as chiral selector 978(2002)221

Electroosmotic flow variations caused by the volatility of buffer components: diagnosis and therapy 979(2002)97

Determination of recombinant hirudin structural deviants by capillary zone electrophoresis augmented with buffer additives 979(2002)217

Comparison of the separation of large DNA fragments in the presence and absence of electroosmotic flow at high pH 979(2002)299

Peak compression effects in capillary electrochromatography of basic drug substances using a strong cation-exchanger 979(2002)335

Separation and on-line concentration of bisphenol A and alkylphenols by micellar electrokinetic chromatography with cationic surfactant 979(2002)425

Separation and determination of nitrobenzenes by micellar electrokinetic chromatography and high-performance liquid chromatography 979(2002)439

Role of buffer concentration and applied voltage in obtaining a good separation in planar electrochromatography 983(2003)247

Exploration of the electrophoretic behaviour of borane cluster anions and of the capability of capillary electrophoresis to separate them chirally 984(2003)121

Comparison of peak shapes obtained with volatile (mass spectrometry-compatible) buffers and conventional buffers in reversed-phase high-performance liquid chromatography of bases on particulate and monolithic columns 987(2003)17

Ammonium hydrogencarbonate, an excellent buffer for the analysis of basic drugs by liquid chromatography-mass spectrometry at high pH 987(2003)211

Rapid and simultaneous analysis of some bioactive components in *Eucommia ulmoides* by capillary electrophoresis 989(2003)303

On-line micellar electrokinetic chromatography—mass spectrometry: feasibility of direct introduction of non-volatile buffer and surfactant into the electrospray interface (Review) 1000(2003)953

Bubble formation

Packing structure and self-heating in capillary electrochromatography 986(2003)297

Butter

Comparison of solid-phase microextraction and purge-and-trap methods for the analysis of the volatile fraction of butter 985(2003)117

Bypass HPLC

Bypass high-performance liquid chromatography for purification of trace analytes 965(2002)233

Byrsonima crassifolia

Headspace gas chromatography-mass spectrometry of volatile compounds in murici (*Byrsonima crassifolia* L. Rich) 985(2003)297



Calcination

Simultaneous separation of common mono- and divalent cations on a calcinated silica gel column by ion chromatography with indirect photometric detection and aromatic monoamines—oxalic acid, containing crown ethers, used as eluent 956(2002)147

Retention behavior of common mono- and divalent cations on calcinated silica gel columns in ion chromatography with conductimetric detection and the use of nitric acid, containing crown ethers, as eluents 956(2002)159

Calibration

Reproducible digestion method for ion-chromatographic analysis of anions in 30% hydrogen peroxide 956(2002)23

Non-linear calibration functions in ion chromatography with suppressed conductivity detection using hydroxide eluents 957(2002)99

Evaluation of size-exclusion chromatography and size-exclusion electrochromatography calibration curves 957(2002)127

Determining the molar mass of a plasma substitute succinylated gelatin by size exclusion chromatography—multi-angle laser light scattering, sedimentation equilibrium and conventional size exclusion chromatography 957(2002)139

Study on the concentration effects in size exclusion chromatography. VII. A quantitative verification for the model theory of concentration and molecular mass dependences of hydrodynamic volumes for polydisperse polymers 961(2002)155

Size-exclusion chromatography in 1,1,1,3,3,3-hexafluoro-2-propanol 964(2002)169

Alternative calibration approaches to compensate the effect of co-extracted matrix components in liquid chromatography—electrospray ionisation tandem mass spectrometry analysis of pesticide residues in plant materials 973(2002)13

Evaluation of calibration data in capillary electrophoresis using artificial neural networks to increase precision of analysis 979(2002)59

Quantitative accuracy in the gas chromatographic analysis of solvent mixtures 985(2003)21

Development of a gas chromatography-mass spectrometry method for the determination of household insecticides in indoor air 985(2003)147

Intercalibration of chromatographic methods for auxino phytodrugs in *Solanaceae* 993(2003)111

Description and characterization of an on-line system for longterm measurements of isoprene, methyl vinyl ketone, and methacrolein in ambient air 995(2003)185

Fractal calibration in size-exclusion chromatography. I. An introduction 996(2003)33

On-site calibration method based on stepwise solid-phase microextraction 999(2003)43

Matrix effects in (ultra)trace analysis of pesticide residues in food and biotic matrices (Review) 1000(2003)181

Capacitively coupled contactless conductivity detection Electrophoretic separations with polyether ether ketone capillaries and capacitively coupled contactless conductivity detection 978(2002)205

Capacity gradients

Adjustable-capacity anion-exchange separator 956(2002)35

Environmental applications of a cryptand adjustable-capacity anion-exchange separator 997(2003)33

Capillary array electrophoresis

Multiplexed capillary electrophoresis for DNA sequencing with ultra violet absorption detection 960(2002)229

Capillary-channel polymer fibers

Capillary-channeled polymer fibers as stationary phases in liquid chromatography separations 986(2003)17

Capillary columns

see also Coated capillaries and Packed capillary columns

Metal complex-substituted polysiloxanes as novel coatings for capillary electrophoresis and capillary electrochromatography 954(2002)247

Evaluation of extended light path capillary and etched capillary for use in open tubular capillary electrochromatography 961(2002)285

Capillary zone electrophoresis in laboratory-made fluorinated ethylene propylene capillaries 972(2002)283

Electrophoretic separations with polyether ether ketone capillaries and capacitively coupled contactless conductivity detection 978(2002)205

Microcolumns with self-assembled particle frits for proteomics 979(2002)273

Capillary electrochromatographic separation of non-steroidal anti-inflammatory drugs with a histidine bonded phase 982(2002)293

Gas chromatography for in situ analysis of a cometary nucleus. IV. Study of capillary column robustness for space application 982(2002)303

Symmetrical (double-speed) static coating for high-resolution gas chromatography column preparation 985(2003)79

Open tubular capillary electrochromatography of underivatized amino acids using Rh(III) tetrakis(phenoxyphenyl)porphyrinate as wall modifier 990(2003)159

Prediction of the plate height of capillary columns operated at any inlet pressure of the carrier gas by using few retention data measured under isobaric conditions 994(2003)103

Capillary electrophoresis

see also Affinity capillary electrophoresis, Electrokinetic chromatography, Electrophoresis, Isoelectric focusing, Isotachophoresis, Micellar electrokinetic chromatography, Nonaqueous capillary electrochromatography, Nonaqueous capillary electrophoresis, Partial-filling capillary electrophoresis and Special Issue Index

Band broadening caused by the multiple labeling of proteins in micellar electrokinetic chromatography with diode laser-induced fluorescence detection 959(2002)281

Stable homogeneous gel for molecular-sieving of DNA fragments in capillary electrophoresis 960(2002)221

Capillary electrophoresis in aqueous-organic media. Ionic strength effects and limitations of the Hubbard-Onsager dielectric friction model 964(2002)213

Evaluation and optimization of capillary zone electrophoresis with different dynamic capillary coatings for the determination of carbohydrate-deficient transferrin in human serum 979(2002)43

Rapid screening of pK_a values of pharmaceuticals by pressure-assisted capillary electrophoresis combined with short-end injection 979(2002)369

Advantages and limitations of coupling isotachophoresis and comprehensive isotachophoresis—capillary electrophoresis to time-of-flight mass spectrometry 992(2003)169

Enantioselective ligand exchange in modern separation techniques (Review) 1000(2003)891

Capillary electrophoresis-mass spectrometry

see also Mass spectrometry

The potential of organic (electrospray- and atmospheric pressure chemical ionisation) mass spectrometric techniques coupled to liquid-phase separation for speciation analysis (Review) 1000(2003)841

Capillary electrophoresis mobility shift assay

Structural requirements for conserved Arg⁵² residue for interaction of the human immunodeficiency virus type 1 transactivation responsive element with trans-activator of transcription protein (49–57). Capillary electrophoresis mobility shift assay 968(2002)211

Capsid

Mapping of protein:protein contact surfaces by hydrogen/deuterium exchange, followed by on-line high-performance liquid chromatography-electrospray ionization fourier-transform ion-cyclotron-resonance mass analysis 982(2002)85

Caragana Jubata

Selective separation of active inhibitors of epidermal growth factor receptor from Caragana Jubata by molecularly imprinted solid-phase extraction 991(2003)151

Carbon columns

Separation of polar compounds using carbon columns (Review) 989(2003)183

Carbon composite electrodes

Evaluation of a sol-gel derived carbon composite electrode as an amperometric detector for capillary electrophoresis 991(2003)109

Carbon fibres

New approach to characterise physicochemical properties of solid substrates by inverse gas chromatography at infinite dilution. III. Determination of the acid-base properties of some solid substrates (polymers, oxides and carbon fibres): a new model 969(2002)37

Carbon loads

Chromatographic behaviour of selected steroids and their inclusion complexes with β -cyclodextrin on octadecylsilica stationary phases with different carbon loads 955(2002)71

Carrier gas

Carrier gas as a new factor influencing the selectivity of the gas-stationary liquid phase chromatographic system 985(2003)57

Prediction of the plate height of capillary columns operated at any inlet pressure of the carrier gas by using few retention data measured under isobaric conditions 994(2003)103

Carrier-mediated transport

Liquid-phase microextraction of hydrophilic drugs by carrier-mediated transport 998(2003)61

Catalysts

Ion trap tandem mass spectrometric identification of thiabendazole phototransformation products on titanium dioxide 984(2003)59

Catharanthus roseus

Screening of *Catharanthus roseus* secondary metabolites by high-performance liquid chromatography 955(2002)87

Cation exchange, off-line

Zwitterionic ion chromatography using a dynamically coated column and mobile phase recycling 973(2002)103

Cation-exchange behavior

Column selectivity in reversed-phase liquid chromatography. IV. Type-B alkyl-silica columns (Review) 1000(2003)757

Cation-exchange chromatofocusing

High-performance cation-exchange chromatofocusing of proteins 991(2003)117

Cation-exchange restricted-access material

Use of a novel cation-exchange restricted-access material for automated sample clean-up prior to the determination of basic drugs in plasma by liquid chromatography 975(2002)145

Cation exchangers

see also Ion exchangers

Capillary electrochromatography of peptides on a column packed with tentacular weak cation-exchanger particles 953(2002)239

Stationary phase effects on the dynamic affinity of low-molecular-mass displacers 954(2002)127

Peak compression effects in capillary electrochromatography of basic drug substances using a strong cation-exchanger 979(2002)335

Co-eluent effect in partition chromatography. Rhamnose–xylose separation with strong and weak cation-exchangers in aqueous ethanol 982(2002)69

Novel cation-exchange column for the separation of hydrophobic and/or polyvalent amines 997(2003)199

Cation-selective exhaustive injection

Analysis of the herbicides paraquat, diquat and difenzoquat in drinking water by micellar electrokinetic chromatography using sweeping and cation selective exhaustive injection 961(2002)65

Cells

Method of intracellular naphthalene-2,3-dicarboxaldehyde derivatization for analysis of amino acids in a single erythrocyte by capillary zone electrophoresis with electrochemical detection 959(2002)269

Chromatography of microbial cells using continuous supermacroporous affinity and ion-exchange columns 977(2002)27

Two dimensional mapping of cancer cell extracts by liquid chromatography—capillary electrophoresis with ultraviolet absorbance detection 979(2002)81

Hyperlayer hollow-fiber flow field-flow fractionation of cells 985(2003)519

Cement paste

Characterisation of cement pastes by inverse gas chromatography 969(2002)261

Censored data

How to estimate moments and quantiles of environmental data sets with non-detected observations? A case study on volatile organic compounds in marine water samples 975(2002)123

Central composite design

Quantitation of the enantiomers of ofloxacin by capillary electrophoresis in the parts per billion concentration range for in vitro drug absorption studies 988(2003)135

Multivariate optimisation of a cyclodextrin-assisted-capillary zone electrophoretic method for the separation of torasemide and its metabolites 990(2003)271

Centrifugal partition chromatography

Preparative isolation of polyphenolic compounds from *Vitis vinifera* by centrifugal partition chromatography 964(2002)123

Cereals

Determination of T-2 toxin in cereal grains by liquid chromatography with fluorescence detection after immunoaffinity column clean-up and derivatization with 1-anthroylnitrile 989(2003)257

Determination of zearalenone from wheat and corn by pressurized liquid extraction and liquid chromatography–electrospray mass spectrometry 993(2003)39

Chain end effects

Molecular modelling of chain end effects in separating oligomers by reversed-phase gradient polymer elution chromatography; adsorption transition as revealed by a self-consistent-field theory for polymer adsorption 959(2002)37

Charged polymer brushes

Binding of ionic surfactants to charged polymer brushes grafted onto porous substrates 954(2002)89

Charge exclusion

Comparison of the acidity of residual silanol groups in several liquid chromatography columns 986(2003)33

Cheese

New chromatographic method for separation and determination of denatured α_{s1} -, α_{s2} -, β - and κ -caseins by hydrophobic interaction chromatography 958(2002)157

Determination of *Penicillium* mycotoxins in foods and feeds using liquid chromatography—mass spectrometry 964(2002)189

Separation and quantification of the major casein fractions by reverse-phase high-performance liquid chromatography and urea-polyacrylamide gel electrophoresis. Detection of milk adulterations 967(2002)209

Separation and determination of denatured α_{s1} -, α_{s2} -, β - and κ -caseins by hydrophobic interaction chromatography in cows', ewes' and goats' milk, milk mixtures and cheeses 994(2003)59

Chelating Sepharose Fast Flow

Confocal Raman and fluorescence spectroscopy applied to polymeric chromatographic adsorbent particles 954(2002)151

Chelation

see also Complexation and Derivatization

Dynamic chelation ion chromatography of transition and heavy metal ions using a mobile phase containing 4-chlorodipicolinic acid 953(2002)141

Determination of transition metal ions in tobacco as their 2-(2-quinolinylazo)-5-dimethylaminophenol derivatives using reversed-phase liquid chromatography with UV–VIS detection 971(2002)243

Reversed-phase liquid chromatography of biologically active lipophilic chelators. II. Improvement of chromatographic performance and selected applications in biochemical analysis 987(2003)169

Selectivity behaviour of a bonded phosphonate-carboxylate polymeric ion exchanger for metal cations with varying eluent compositions 997(2003)3

Chemical composition distribution

Gradient separation of polymers at critical point of adsorption 966(2002)25

Chemical ionization

see also Mass spectrometry

A mass spectral library based on chemical ionization and collision-induced dissociation 974(2002)161

Chemiluminescence detection

Chemiluminescence detection coupled to high-performance frontal analysis for the determination of unbound concentrations of drugs in protein binding equilibrium 952(2002)131

Separation and determination of emetine dithiocarbamate metal complexes by capillary electrophoresis with chemiluminescence detection of the tris(2,2'-bipyridine)-ruthenium(II) complex 958(2002)283

Ultrasensitive chemiluminescence detection in capillary electrophoresis (Review) 959(2002)1

Miniaturization of batch- and flow-type chemiluminescence detectors in capillary electrophoresis 971(2002)255

Sulfur and nitrogen chemiluminescence detection in gas chromatographic analysis (Review) 976(2002)3

Separation and determination of phenolic compounds by capillary electrophoresis with chemiluminescence detection 978(2002)213

Determination of organic peroxides by liquid chromatography with on-line post-column ultraviolet irradiation and peroxyoxalate chemiluminescence detection 987(2003)189

Determination of carbohydrates as their 3-aminophthalhydrazide derivatives by capillary zone electrophoresis with on-line chemiluminescence detection 992(2003)181

Chemiluminescent nitrogen detection

Determination of zwitterionic and cationic surfactants by highperformance liquid chromatography with chemiluminescenscent nitrogen detection 956(2002)237

A comparative study of commercial liquid chromatographic detectors for the analysis of underivatized amino acids 961(2002)9

Chemometrics

see also specific methods

Optimisation of headspace solid-phase microextraction for analysis of aromatic compounds in vinegar 953(2002)7

Analysis of peak asymmetry in chromatography 953(2002)31

Minimal number of chromatographic test parameters for the characterisation of reversed-phase liquid chromatographic stationary phases 954(2002)99

Optimization of parameters for the supercritical fluid extraction in the determination of N-nitrosamines in rubbers 963(2002)419

Use of experimental design for the purge-and-trap-gas chromatography—mass spectrometry determination of methyl *tert.*-butyl ether, *tert.*-butyl alcohol and BTEX in groundwater at trace level 975(2002)113

Using second-order calibration to identify and quantify aromatic sulfonates in water by high-performance liquid chromatography in the presence of coeluting interferences 988(2003)277

Capillary zone electrophoresis in wide bore capillary tubes with fiber-coupled diode array detection 990(2003)23

Determination of orotic acid in urine by capillary zone electrophoresis in tandem-coupled columns with diode array detection 990(2003)121

Advances in methodology for the validation of methods according to the International Organization for Standardization. Application to the determination of benzoic and sorbic acids in soft drinks by high-performance liquid chromatography 992(2003)11

Chestnut

Analysis of commercial vegetable tanning agents by reversedphase liquid chromatography-electrospray ionization-tandem mass spectrometry and its application to wastewater 970(2002)191

Chewing gum

Thermodynamic study of two different chewing-gum bases by inverse gas chromatography 996(2003)189

Chip technology

Capillary electrophoresis—electrochemistry microfluidic system for the determination of organic peroxides 952(2002)249

Recent developments in ion chromatography (Review) 956(2002)3

Micromachined capillary cross-connector for high-precision fraction collection 979(2002)105

Voltage-addressable on/off microvalves for high-pressure microchip separations 979(2002)147

Protein proteolysis and the multi-dimensional electrochromatographic separation of histidine-containing peptide fragments on a chip 984(2003)97

Microchannel-assisted thermal-lens spectrometry for microchip analysis 987(2003)197

Nonaqueous-based microchip separation of toxic metal ions using 2-(5-bromo-2-pyridylazo)-5-(*N*-propyl-*N*-sulfopropylamino)phenol 989(2003)311

Integrated moulded polymer electrodes for performing conductivity detection on isotachophoresis microdevices 990(2003)11

High-sensitivity capillary gel electrophoretic analysis of DNA fragments on an electrophoresis microchip using electrokinetic injection with transient isotachophoretic preconcentration 990(2003)53

Comparison of standard capillary and chip separations of sodium dodecylsulfate-protein complexes 990(2003)153

Zone electrophoresis of proteins on a poly(methyl methacrylate) chip with conductivity detection 990(2003)179

Miniaturised isotachophoretic analysis of inorganic arsenic speciation using a planar polymer chip with integrated conductivity detection 990(2003)325

A microfabricated microconcentrator for sensors and gas chromatography 996(2003)1

Chiral recognition

Evaluation of a penicillin G acylase-based chiral stationary phase towards a series of 2-aryloxyalkanoic acids, isosteric analogs and 2-arylpropionic acids 958(2002)131

Mechanistic study of enantiomeric recognition with native γ -cyclodextrin by capillary electrophoresis, reversed-phase liquid chromatography, nuclear magnetic resonance spectroscopy, electrospray mass spectrometry and circular dichroism techniques 987(2003)409

Enantioselective ligand exchange in modern separation techniques (Review) 1000(2003)891

Chiral selectors

see also Buffer composition and Mobile phase composition

Comparative study on the enantiomer separation of 1,1'-binaphthyl-2,2'diyl hydrogenphosphate and 1,1'-bi-2-naphthol by liquid chromatography and capillary electrophoresis using single and combined chiral selector systems 977(2002)225

Enantiomer separation of *N*-protected amino acids by non-aqueous capillary electrophoresis and high-performance liquid chromatography with *tert*.-butyl carbamoylated quinine in either the background electrolyte or the stationary phase 987(2003)421

Chiral stationary phases

see also Enantiomer separation

Separation of stereoisomers of several furan derivatives by capillary gas chromatography-mass spectrometry, supercritical fluid chromatography, and liquid chromatography using chiral stationary phases 977(2002)125

Chiral stationary phases, electrochromatography

Comparison of enantioseparations using Cu(II) complexes with L-amino acid amides as chiral selectors or chiral stationary phases by capillary electrophoresis, capillary electrochromatography and micro liquid chromatography 990(2003)75

Enantioseparation of dipeptides by capillary electrochromatography on a teicoplanin aglycone chiral stationary phase 990(2003)83

Use of short-end injection capillary packed with a glycopeptide antibiotic stationary phase in electrochromatography and capillary liquid chromatography for the enantiomeric separation of hydroxy acids 990(2003)143

Chiral stationary phases, electrophoresis

Comparison of enantioseparations using Cu(II) complexes with L-amino acid amides as chiral selectors or chiral stationary phases by capillary electrophoresis, capillary electrochromatography and micro liquid chromatography 990(2003)75

Chiral stationary phases, GC

Copolymeric (1*R-trans*)-*N*,*N'*-1,2-cyclohexylene-bisbenzamide oligodimethylsiloxane chiral stationary phase for gas chromatography 982(2002)119

Comparison of Chirasil-DEX CB as gas chromatographic and ULMO as liquid chromatographic chiral stationary phase for enantioseparation of aryl- and heteroarylcarbinols 992(2003)151

Mixed chiral stationary phase containing modified resorcinarene and β -cyclodextrin selectors bonded to a polysiloxane for enantioselective gas chromatography 994(2003)127

Chiral stationary phases, LC

Study of the adsorption equilibria of the enantiomers of 1-phenyl-1-propanol on cellulose tribenzoate using a microbore column 953(2002)55

Measurement and modeling of the equilibrium behavior of the Tröger's base enantiomers on an amylose-based chiral stationary phase 955(2002)35

Separation of chiral sulfoxides by liquid chromatography using macrocyclic glycopeptide chiral stationary phases 955(2002)53

Amino-bonded silica as stationary phase for liquid chromatographic determination of cyclopiazonic acid in fungal extracts 955(2002)79

Direct high-performance liquid chromatographic enantioseparation of apolar β -amino acids on a quinine-derived chiral anion-exchanger stationary phase 955(2002)141

Unusual effect of column temperature on chromatographic enantioseparation of dihydropyrimidinone acid and methyl ester on amylose chiral stationary phase 958(2002)69

Effects of temperature on retention of chiral compounds on a ristocetin A chiral stationary phase 958(2002)89

Evaluation of a penicillin G acylase-based chiral stationary phase towards a series of 2-aryloxyalkanoic acids, isosteric analogs and 2-arylpropionic acids 958(2002)131

Liquid chromatographic resolution of racemic amines, amino alcohols and related compounds on a chiral crown ether stationary phase 959(2002)75

Enantioseparation of various amino acid derivatives on a quinine based chiral anion-exchange selector at variable temperature conditions. Influence of structural parameters of the analytes on the apparent retention and enantioseparation characteristics 960(2002)97

Energetic heterogeneity of the surface of a molecularly imprinted polymer studied by high-performance liquid chromatography 964(2002)99

Screening approach for chiral separation of pharmaceuticals. Part II. Reversed-phase liquid chromatography 966(2002)119

Chiral liquid chromatography separation and chiroptical properties of the enantiomers of dimethyl α -hydroxyfarnesylphosphonate, a precursor of a farnesyl protein transferase inhibitor 966(2002)221

Enantiomer separation of flavour and fragrance compounds by liquid chromatography using novel urea-covalent bonded methylated β -cyclodextrins on silica 968(2002)31

Determination of the enantiomeric purity of nucleoside analogs related to d4T and acyclovir, new potential antiviral agents, using liquid chromatography on cellulose chiral stationary phases 972(2002)211

Separation of planar chiral ferrocene derivatives on β -cyclodextrin-based polymer supports prepared via ring-opening metathesis graft-polymerization 973(2002)115

Enantioselective ion-exclusion chromatography on teicoplanin aglycone and (+)-(18-crown-6)-2,3,11,12-tetracarboxylic acid stationary phases 983(2003)91

Liquid chromatographic separation of phosphoramidate diastereomers on a polysaccharide-type chiral stationary phase 983(2003)115

Preparation and application of a new modified liquid chromatographic chiral stationary phase based on (+)-(18-crown-6)-2,3,11,12-tetracarboxylic acid 984(2003)163

Comparison of monomeric and polymeric chiral stationary phases 987(2003)111

Enantiomer separation of *N*-protected amino acids by non-aqueous capillary electrophoresis and high-performance liquid chromatography with *tert*.-butyl carbamoylated quinine in either the background electrolyte or the stationary phase 987(2003)421

Enantioseparation of racemic N-acylarylalkylamines on various amino alcohol derived π -acidic chiral stationary phases 987(2003)429

Comparison of enantioseparations using Cu(II) complexes with L-amino acid amides as chiral selectors or chiral stationary phases by capillary electrophoresis, capillary electrochromatography and micro liquid chromatography 990(2003)75

Use of short-end injection capillary packed with a glycopeptide antibiotic stationary phase in electrochromatography and capillary liquid chromatography for the enantiomeric separation of hydroxy acids 990(2003)143

New ligand exchange chiral stationary phase for the liquid chromatographic resolution of α - and β -amino acids 992(2003)47

Comparison of Chirasil-DEX CB as gas chromatographic and ULMO as liquid chromatographic chiral stationary phase for enantioseparation of aryl- and heteroarylcarbinols 992(2003)151

Enantioselective liquid chromatography of C_3 -chiral 2,3-dihydro-1,2,5-benzothiadiazepin-4(5H)-one and thione 1,1-dioxides on polyacrylamide- and polysaccharide-based chiral stationary phases 993(2003)17

Enantiomeric separation of tocainide and its analogues on an optically active crown ether-based stationary phase by liquid chromatography 996(2003)233

Chiralcel OD

Separation of stereoisomers of several furan derivatives by capillary gas chromatography-mass spectrometry, supercritical fluid chromatography, and liquid chromatography using chiral stationary phases 977(2002)125

Chiralpak AD

Separation of stereoisomers of several furan derivatives by capillary gas chromatography-mass spectrometry, supercritical fluid chromatography, and liquid chromatography using chiral stationary phases 977(2002)125

Chiroptical detection

Quantitation and test of enantiomeric purity of the Lketohexoses by liquid chromatography with dual refractive index and laser-based chiroptical detection 987(2003)439

Chitosan stationary phases

Evaluation of *n*-valeraldehyde modified chitosan as a matrix for hydrophobic interaction chromatography 952(2002)79

Chromatofocusing

High-performance cation-exchange chromatofocusing of proteins 991(2003)117

Chromatographic test

Characterisation of reversed-phase liquid chromatographic columns by chromatographic tests. Evaluation of 36 test parameters: repeatability, reproducibility and correlation 977(2002)39

Cigarette smoke

see also Tobacco

Unravelling the composition of very complex samples by comprehensive gas chromatography coupled to time-of-flight mass spectrometry. Cigarette smoke 974(2002)169

Analysis of pyridines in mainstream cigarette smoke 985(2003)303

New technique using solid-phase extraction for the analysis of aromatic amines in mainstream cigarette smoke 991(2003)99

Circular dichroism

Chiral liquid chromatography separation and chiroptical properties of the enantiomers of dimethyl α -hydroxyfarnesylphosphonate, a precursor of a farnesyl protein transferase inhibitor 966(2002)221

Mechanistic study of enantiomeric recognition with native γ -cyclodextrin by capillary electrophoresis, reversed-phase liquid chromatography, nuclear magnetic resonance spectroscopy, electrospray mass spectrometry and circular dichroism techniques 987(2003)409

Cistus species

Analysis of catechins in extracts of *Cistus* species by microemulsion electrokinetic chromatography 990(2003)215

Citrus deliciosa

Use of solid-phase micro-extraction as a sampling technique in the determination of volatiles emitted by flowers, isolated flower parts and pollen 998(2003)229

Cladosporium cucumerinum

On-line identification of the antifungal constituents of *Erythrina vogelii* by liquid chromatography with tandem mass spectrometry, ultraviolet absorbance detection and nuclear magnetic resonance spectrometry combined with liquid chromatographic micro-fractionation 974(2002)123

Clay

Enthalpy of fuel gas odorants on surrogate soil surfaces by gas chromatography 975(2002)311

Clean-up methods

see also Extraction methods, Preconcentration, Sample handling, Sample preparation and Special Issue Index

Optimisation of a dialytic set-up for liquid chromatography: automated separation and preconcentration of ciprofloxacin 975(2002)199

Micropore-free surface-activated carbon for the analysis of polychlorinated dibenzo-*p*-dioxins-dibenzofurans and non-*ortho*-substituted polychlorinated biphenyls in environmental samples 977(2002)155

Solid-phase clean-up in the liquid chromatographic determination of polycyclic aromatic hydrocarbons in edible oils 988(2003)33

Closed-loop stripping analysis

Closed-loop stripping analysis of synthetic musk compounds from fish tissues with measurement by gas chromatography—mass spectrometry with selected-ion monitoring 993(2003)1

Clostridium aminovalericum

Nickel and copper complexes of a chelating methacrylate sorbent in the purification of chitinases and specific immunoglobulin G₁ by immobilized metal ion affinity chromatography 983(2003)125

Cloud point extraction

Acid-induced cloud point extraction and preconcentration of polycyclic aromatic hydrocarbons from environmental solid samples 962(2002)1

Pressurized liquid extraction of active ingredients (ginsenosides) from medicinal plants using non-ionic surfactant solutions 983(2003)153

Mixed aggregate-based acid-induced cloud-point extraction and ion-trap liquid chromatography-mass spectrometry for the determination of cationic surfactants in sewage sludge 998(2003)143

Coal

Simple off-line flash pyrolysis procedure with in situ silylation for the analysis of hydroxybenzenes in humic acids and coals 967(2002)235

Gas and liquid chromatography of metal chelates of pentamethylene dithiocarbamate 973(2002)235

Coated capillaries

see also Capillary columns

Electroosmotic flow controllable coating on a capillary surface by a sol-gel process for capillary electrophoresis 952(2002)255

Cycloaliphatic epoxy resin coating for capillary electrophoresis 952(2002)267

Semi-permanent surfactant coatings for inorganic anion analysis in capillary electrophoresis 956 (2002) 271

Improvement of the long-term stability of polyimide-coated fused-silica capillaries used in capillary electrophoresis and capillary electrochromatography 961(2002)35

Control of electroosmotic flow in zirconia-coated capillaries 971(2002)199

Evaluation and optimization of capillary zone electrophoresis with different dynamic capillary coatings for the determination of carbohydrate-deficient transferrin in human serum 979(2002)43

On-line concentration of trace proteins by pH junctions in capillary electrophoresis with UV absorption detection 979(2002)261

1,3-Dialkylimidazolium-based room-temperature ionic liquids as background electrolyte and coating material in aqueous capillary electrophoresis 985(2003)447

Influencing electroosmotic flow and selectivity in open tubular electrochromatography by tetrakis(pentafluorophenyl)porphyrin as capillary wall modifier 990(2003)111

Affinity electrochromatography of acidic drugs using a liposome-modified capillary 990(2003)281

Coated columns

Modification of ion chromatographic separations by ionic and nonionic surfactants 997(2003)21

Coating

Metal complex-substituted polysiloxanes as novel coatings for capillary electrophoresis and capillary electrochromatography 954(2002)247

Performance of metal complex substituted polysiloxanes in capillary electrophoresis and capillary electrochromatography 967(2002)289

Symmetrical (double-speed) static coating for high-resolution gas chromatography column preparation 985(2003)79

Ion chromatography on reversed-phase materials coated with mixed cationic and nonionic surfactants 985(2003)359

Coconut water

Determination of pesticide residues in coconut water by liquid—liquid extraction and gas chromatography with electron-capture plus thermionic specific detection and solid-phase extraction and high-performance liquid chromatography with ultraviolet detection 957(2002)201

Co-elution

Using second-order calibration to identify and quantify aromatic sulfonates in water by high-performance liquid chromatography in the presence of coeluting interferences 988(2003)277

Coffee

Optimization of solid-phase clean-up prior to liquid chromatographic analysis of ochratoxin A in roasted coffee 959(2002)327

Gas chromatographic-mass spectrometric quantification of 4-(5-)-methylimidazole in roasted coffee after ion-pair extraction 976(2002)285

Cold temperature trapping

Development of a two-dimensional liquid chromatography system with trapping and sample enrichment capabilities 968(2002)41

Cold-vapour atomic fluorescence spectrometry

Determination of methylmercury in human hair by ethylation followed by headspace solid-phase microextraction—gas chromatography—cold-vapour atomic fluorescence spectrometry 963(2002)345

Collision-induced dissociation

see also Mass spectrometry

A mass spectral library based on chemical ionization and collision-induced dissociation 974(2002)161

Collocated monolithic support structures

Protein proteolysis and the multi-dimensional electrochromatographic separation of histidine-containing peptide fragments on a chip 984(2003)97

Colorimetric solid-phase extraction

Rapid determination of ions by combined solid-phase extraction—diffuse reflectance spectroscopy 997(2003)41

Column characterization

Characterisation of reversed-phase liquid chromatographic columns by chromatographic tests. Evaluation of 36 test parameters: repeatability, reproducibility and correlation 977(2002)39

Comparison of preparative characteristics of micro open parallel plate separators and microbore columns for concentration of trace species by displacement chromatography 989(2003)3

Chromatographic classification and comparison of commercially available reversed-phase liquid chromatographic columns using principal component analysis 994(2003)13

Column diameter

Quantification of the sensitivity increase of a micro-highperformance liquid chromatography-electrospray ionization mass spectrometry system with decreasing column diameter 976(2002)11

Column efficiency

see also Efficiency

Band broadening caused by the multiple labeling of proteins in micellar electrokinetic chromatography with diode laser-induced fluorescence detection 959(2002)281

Study of the mass transfer kinetics in a monolithic column 983(2003)51

Column length

Influence of chromatographic conditions on separation in comprehensive gas chromatography 962(2002)135

Column packing

Computational fluid dynamics simulations yielding guidelines for the ideal internal structure of monolithic liquid chromatography columns 991(2003)169

Column retentivity

Evaluation of high-performance liquid chromatography column retentivity using macromolecular probes. II. Silanophilic interactivity traced by highly polar polymers 976(2002)27

Column stability

Explanation for the enhanced dissolution of silica column packing in high pH phosphate and carbonate buffers 988(2003)309

Column switching

see also Coupled columns

Liquid chromatographic method development for determination of fungicide epoxiconazole enantiomers by achiral and chiral column switching technique in water and soil 959(2002)143

Column-switching system with restricted access pre-column packing for an integrated sample cleanup and liquid chromatographic—mass spectrometric analysis of alkylphenolic compounds and steroid sex hormones in sediment 971(2002)37

Column switching-back flushing technique for the analysis of aromatic compounds in gasoline 972(2002)253

Use of a novel cation-exchange restricted-access material for automated sample clean-up prior to the determination of basic drugs in plasma by liquid chromatography 975(2002)145

Determination of rotenone in river water utilizing packed capillary column switching liquid chromatography with UV and time-of-flight mass spectrometric detection 983(2003)43

Determination of amoxycillin in human plasma by direct injection and coupled-column high-performance liquid chromatography 987(2003)235

Column testing

Minimal number of chromatographic test parameters for the characterisation of reversed-phase liquid chromatographic stationary phases 954(2002)99

Combustion products

Gas chromatographic-mass spectrometric separation and identification of combustion products of organo-phosphorus and chlorine pesticides and evaluation of their impact on the environment 954(2002)227

Compaction agents

Enhancement of anion-exchange chromatography of DNA using compaction agents 984(2003)215

Complexation

see also Chelation and Derivatization

Determination of vanadium as 4-(2-pyridylazo)resorcinol—hydrogen peroxide ternary complexes by ion-interaction reversed-phase liquid chromatography 956(2002)221

Simultaneous capillary electrophoretic separation and detection of P(V) and As(V) as heteropoly-blue complexes 966(2002)213

On-column complexation of metal ions using 2,6-pyridinedicarboxylic acid and separation of their anionic complexes by capillary electrophoresis with direct UV detection 966(2002)245

Potassium and sodium chloride ion pairs are presumed to constitute a complex during elution from a Sephadex G-15 column with sodium phosphate buffer 987(2003)49

Indirect capillary electrophoresis with 8-anilino-1-naphthalenesulfonic acid as a fluorescence probe for determining the apparent stability constant of an inclusion complex formed between a cyclodextrin and a solute 987(2003)485

Determination of pyridine and adenine nucleotide metabolites in *Bacillus subtilis* cell extract by sweeping borate complexation capillary electrophoresis 989(2003)293

Comparison of standard capillary and chip separations of sodium dodecylsulfate-protein complexes 990(2003)153

Determination of aluminum in environmental and biological samples by reversed-phase high-performance liquid chromatography via pre-column complexation with morin 993(2003)179

Capillary electrophoretic determination of Ga(III) based on the formation of a heteropolyoxomolybdate complex 993(2003)211

Component detection algorithm

Comparison between liquid chromatography–UV detection and liquid chromatography–mass spectrometry for the characterization of impurities and/or degradants present in trimethoprim tablets 970(2002)141

Comprehensive two-dimensional chromatography

see also Gas chromatography, comprehensive two-dimensional and Liquid chromatography, comprehensive two-dimensional

Theoretical study of incomplete sampling of the first dimension in comprehensive two-dimensional chromatography 962(2002)21

Comprehensive two-dimensional liquid chromatography×gas chromatography: evaluation of the applicability for the analysis of edible oils and fats (Review) 1000(2003)385

Computational chemistry

Quantitative structure-retention relationships of phenolic compounds without Hammett's equations 985(2003)343

Computational fluid dynamics simulations

Computational fluid dynamics simulations yielding guidelines for the ideal internal structure of monolithic liquid chromatography columns 991(2003)169

Computer simulation

Temperature effects on the retention of *n*-alkanes and arenes in helium–squalane gas–liquid chromatography. Experiment and molecular simulation 954(2002)181

Stochastic simulation of the partition mechanism with a heterogeneous surface phase 959(2002)49

Predicting the behaviour of polydisperse polymers in liquid chromatography under isocratic and gradient conditions (Review) 965(2002)93

Computerized design of separation strategies by reversed-phase liquid chromatography: development of DryLab software (Review) 965(2002)175

Effects of solvent density on retention in gas-liquid chromatography. II. Polar solutes in poly(ethylene glycol) stationary phases 989(2003)265

Computer-assisted method development and optimization in HPLC 991(2003)281

Prediction of the plate height of capillary columns operated at any inlet pressure of the carrier gas by using few retention data measured under isobaric conditions 994(2003)103

Concentration effects

Study on the concentration effects in size exclusion chromatography. VII. A quantitative verification for the model theory of concentration and molecular mass dependences of hydrodynamic volumes for polydisperse polymers 961(2002)155

Condensation nucleation light scattering detection

Condensation nucleation light scattering detection with ion chromatography for direct determination of glyphosate and its metabolite in water 989(2003)231

Conductivity detection

New conductivity detection response equation for anions eluted with fully and partially ionised eluents in non-suppressed ion chromatography 956(2002)59

Determination of electroosmotic flow mobility with a pressuremediated dual-ion technique for capillary electrophoresis with conductivity detection using organic solvents 960(2002)199

A comparative study of commercial liquid chromatographic detectors for the analysis of underivatized amino acids 961(2002)9

Application of a contactless conductometric detector for the simultaneous determination of small anions and cations by capillary electrophoresis with dual-opposite end injection 964(2002)227

Electrophoretic separations with polyether ether ketone capillaries and capacitively coupled contactless conductivity detection 978(2002)205

Integrated moulded polymer electrodes for performing conductivity detection on isotachophoresis microdevices 990(2003)11

Integration of a contactless conductivity detector into a commercial capillary cassette. Detection of inorganic cations and catecholamines 990(2003)45

Miniaturised isotachophoretic analysis of inorganic arsenic speciation using a planar polymer chip with integrated conductivity detection 990(2003)325

Separation of haloacetic acids in water by capillary zone electrophoresis with direct UV detection and contactless conductivity detection 993(2003)143

Developments in suppressor technology for inorganic ion analysis by ion chromatography using conductivity detection (Review) 1000(2003)725

Confocal Raman spectroscopy

Confocal Raman and fluorescence spectroscopy applied to polymeric chromatographic adsorbent particles 954(2002)151

Conformational transition

Unusual effect of column temperature on chromatographic enantioseparation of dihydropyrimidinone acid and methyl ester on amylose chiral stationary phase 958(2002)69

Contact angles

Comparison of model monomeric and polymeric alkyl stationary phases on silica using sum-frequency spectroscopy 984(2003)19

Contactless conductivity detection

Application of a contactless conductometric detector for the simultaneous determination of small anions and cations by capillary electrophoresis with dual-opposite end injection 964(2002)227

Integration of a contactless conductivity detector into a commercial capillary cassette. Detection of inorganic cations and catecholamines 990(2003)45

Separation of haloacetic acids in water by capillary zone electrophoresis with direct UV detection and contactless conductivity detection 993(2003)143

Continuous beds

Polyrotaxane approach for synthesis of continuous beds for capillary electrochromatography 971(2002)225

Silica gel-based monoliths prepared by the sol-gel method: Facts and figures (Review) 1000(2003)801

Continuous flow derivatization

Continuous flow derivatization system coupled to capillary electrophoresis for the determination of amino acids 976(2002)55

Continuous-flow liquid membrane extraction

Determination of sulfonylurea herbicides by continuous-flow liquid membrane extraction on-line coupled with high-performance liquid chromatography 955(2002)183

Trace analysis of sulfonylurea herbicides in water by on-line continuous flow liquid membrane extraction— C_{18} precolumn liquid chromatography with ultraviolet absorbance detection 995(2003)21

Continuous free-flow isoelectric focusing

Use of full-column imaging capillary isoelectric focusing for the rapid determination of the operating conditions in the preparative-scale continuous free-flow isoelectric focusing separation of enantiomers 960(2002)241

Continuous ultrasound-assisted extraction

Continuous ultrasound-assisted extraction coupled to on line filtration-solid-phase extraction-column liquid chromatography—post column derivatisation—fluorescence detection for the determination of *N*-methylcarbamates in soil and food 998(2003)51

Contour chromatogram algorithm

Comparison between liquid chromatography–UV detection and liquid chromatography–mass spectrometry for the characterization of impurities and/or degradants present in trimethoprim tablets 970(2002)141

Coordination ionspray

Strategies for the liquid chromatographic-mass spectrometric analysis of non-polar compounds (Review) 1000(2003)549

Copolymeric structure

Copolymeric (1*R-trans*)-*N*,*N'*-1,2-cyclohexylene-bisbenzamide oligodimethylsiloxane chiral stationary phase for gas chromatography 982(2002)119

Cork

Evaluation of an extraction method in the determination of the 2,4,6-trichloroanisole content of tainted cork 953(2002)207

Corrosion protection inhibitors

Determination of inorganic corrosion inhibitors in heat transfer systems by ion chromatography 997(2003)285

Cosmetics

Simultaneous determination of ketoconazole and formaldehyde in a shampoo: liquid chromatography method development and validation 958(2002)191

Determination of water-soluble UV-filters in sunscreen sprays by liquid chromatography 977(2002)277

Determination of benzophenones in a cosmetic matrix by supercritical fluid extraction and capillary electrophoresis 987(2003)269

Comparing micellar electrokinetic chromatography and microemulsion electrokinetic chromatography for the analysis of preservatives in pharmaceutical and cosmetic products 993(2003)153

CoulArray detection

New approach to the simultaneous analysis of catecholamines and tyrosines in biological fluids 987(2003)349

Counter-current chromatography

see also Centrifugal partition chromatography

Purification of icariin from the extract of *Epimedium segittatum* using high-speed counter-current chromatography 962(2002)239

Preparative isolation and purification of calycosin from Astragalus membranaceus Bge. var. mongholicus (Bge.) Hsiao by high-speed counter-current chromatography 962(2002)243

Preparative separation of isomeric sulfophthalic acids by conventional and pH-zone-refining counter-current chromatography 966(2002)111

Separation of salidroside from *Rhodiola crenulata* by highspeed counter-current chromatography 971(2002)237

Modelling counter-current chromatography: a chemical engineering perspective 973(2002)39

Purification of (+)-dihydromyricetin from leaves extract of *Ampelopsis grossedentata* using high-speed countercurrent chromatograph with scale-up triple columns 973(2002)217

Purification of long-chain fatty acid ester of epigallocatechin-3-O-gallate by high-speed counter-current chromatography 982(2002)161

Separation of andrographolide and neoandrographolide from the leaves of *Andrographis paniculata* using high-speed counter-current chromatography 984(2003)147

Isolation and identification of four flavonoid constituents from the seeds of *Oroxylum indicum* by high-speed counter-current chromatography 988(2003)95

Linear two-step gradient counter-current chromatography. Analysis based on a recursive solution of an equilibrium stage model 989(2003)31

Purification of quinoline yellow components using high-speed counter-current chromatography by stepwise increasing the flow-rate of the mobile phase 989(2003)249

Preparative isolation and purification of two isoflavones from *Astragalus membranaceus* Bge. var. *mongholicus* (Bge.) Hsiao by high-speed counter-current chromatography 992(2003)193

Preparative separation and purification of squalene from the microalga *Thraustochytrium* ATCC 26185 by high-speed counter-current chromatography 994(2003)37

pH dependence of the hydrophobicity of β -blocker amine compounds measured by counter-current chromatography 995(2003)55

Separation and purification of glucosinolates from crude plant homogenates by high-speed counter-current chromatography 996(2003)85

Counter pressure

Study of flow profile distortions and efficiency in counter pressure moderated partial filling micellar electrokinetic chromatography in relation to the relative buffer zone lengths 960(2002)209

Coupled columns

see also Column switching

Determination of orotic acid in urine by capillary zone electrophoresis in tandem-coupled columns with diode array detection 990(2003)121

Crataegus laevigata

High-performance liquid chromatographic determination of oligomeric procyanidins from dimers up to the hexamer in hawthorn 968(2002)53

Critical adsorption point

Gradient separation of polymers at critical point of adsorption 966(2002)25

Liquid chromatography of polyethylene glycol mono- and diesters: functional macromolecules or block copolymers? 984(2003)29

Critical chromatography

Predicting the behaviour of polydisperse polymers in liquid chromatography under isocratic and gradient conditions 965(2002)93

Critical interaction mode

Theory of liquid chromatography of mono- and difunctional macromolecules. I. Studies in the critical interaction mode 955(2002)9

Critical mobile phase composition

Application of the reversed-phase liquid chromatographic model to describe the retention behaviour of polydisperse macromolecules in gradient and isocratic liquid chromatography 988(2003)53

Crown ether-based stationary phase

Enantiomeric separation of tocainide and its analogues on an optically active crown ether-based stationary phase by liquid chromatography 996(2003)233

Cryofocusing

New high-performance cryofocalizer injector for in-tube solidphase microextraction and headspace capillary gas chromatographic applications 985(2003)67

Cryogenic systems

Effects of temperature and flow regulated carbon dioxide cooling in longitudinally modulated cryogenic systems for comprehensive two-dimensional gas chromatography 962(2002)127

Retention time reproducibility in comprehensive twodimensional gas chromatography using cryogenic modulation. An intralaboratory study 968(2002)161

Cryptands

Adjustable-capacity anion-exchange separator 956(2002)35

C-term

Expressions for the C-term in the presence of pore flow 965(2002)75

Current intensity

Investigations on factors that influence the moving neutralization reaction boundary method for capillary electrophoresis and isoelectric focusing 952(2002)29

Curve fitting

Comparison of the capability of peak functions in describing real chromatographic peaks 952(2002)63

Analysis of peak asymmetry in chromatography 953(2002)31



Dactylium dendroides

Galactosyl-biomimetic dye-ligands for the purification of *Dactylium dendroides* galactose oxidase 954(2002)137

Database, GC-MS

Automated storage of gas chromatography-mass spectrometry data in a relational database to facilitate compound screening and identification 974(2002)223

Data processing

Unravelling the composition of very complex samples by comprehensive gas chromatography coupled to time-of-flight mass spectrometry. Cigarette smoke 974(2002)169

Data storage, automated

Automated storage of gas chromatography-mass spectrometry data in a relational database to facilitate compound screening and identification 974(2002)223

Decision limit

How to estimate moments and quantiles of environmental data sets with non-detected observations? A case study on volatile organic compounds in marine water samples 975(2002)123

Deconvolution

Comparison of the capability of peak functions in describing real chromatographic peaks 952(2002)63

Parabolic-Lorentzian modified Gaussian model for describing and deconvolving chromatographic peaks 954(2002)59

Dediazoniation

Monitoring dediazoniation product formation by highperformance liquid chromatography after derivatization 989(2003)221

Deferred standards

Deferred standards, an on-line qualification, validation and system stability probe for chromatographic assay 958(2002)79

Degree of racemisation

Determination of free L- and D-alanine in hydrolysed protein fertilisers by capillary electrophoresis 985(2003)463

Degrees of substitution

Determination of acid substituents and unesterified hydroxyl groups in cellulose esters 977(2002)247

Demixing

Acoustic field assisted demixing of aqueous two-phase systems 977(2002)163

Dendrogram color map

Determining orthogonal chromatographic systems prior to the development of methods to characterise impurities in drug substances 988(2003)77

Density

Effects of solvent density on retention in gas-liquid chromatography. I. Alkanes solutes in polyethylene glycol stationary phases 953(2002)151

Effects of solvent density on retention in gas-liquid chromatography. II. Polar solutes in poly(ethylene glycol) stationary phases 989(2003)265

Density distribution

Particle size and density distributions of two dense matrices in an expanded bed system 977(2002)173

Dental composites

Determination of ethoxylated bisphenol A dimethacrylate monomers in dental composites by micellar electrokinetic chromatography 990(2003)231

Denudation

Using different types of capillary chromatographic columns as denudation traps: a comparison of sorption properties 977(2002)115

Derivatization

see also Chelation and Complexation

Separation of stereoisomers of several furan derivatives by capillary gas chromatography-mass spectrometry, supercritical fluid chromatography, and liquid chromatography using chiral stationary phases 977(2002)125

Derivatization, electrophoresis

New triazine spectroscopic reagent for the separation of DLamino acids by micellar electrokinetic chromatography 955(2002)125

Chiral separation of amino acids derivatized with fluoresceine-5-isothiocyanate by capillary electrophoresis and laser-induced fluorescence detection using mixed selectors of β -cyclodextrin and sodium taurocholate 955(2002)133

Method of intracellular naphthalene-2,3-dicarboxaldehyde derivatization for analysis of amino acids in a single erythrocyte by capillary zone electrophoresis with electrochemical detection 959(2002)269

Band broadening caused by the multiple labeling of proteins in micellar electrokinetic chromatography with diode laser-induced fluorescence detection 959(2002)281

Use of capillary electrophoresis and laser-induced fluorescence for attomole detection of amino acids 964(2002)243

Determination of alkylphosphonic acids using micellar electrokinetic chromatography with laser-induced fluorescence detection and high-salt stacking 966(2002)239

On-column complexation of metal ions using 2,6-pyridinedicarboxylic acid and separation of their anionic complexes by capillary electrophoresis with direct UV detection 966(2002)245

Analysis of aminofluorescein–fatty acid derivatives by capillary electrophoresis with laser-induced fluorescence detection at the attomole level: application to mycobacterial fatty acids 973(2002)203

Continuous flow derivatization system coupled to capillary electrophoresis for the determination of amino acids 976(2002)55

Development of capillary electrophoresis for the determination of metal ions using mixed partial and complete complexation techniques 977(2002)135

Laser-induced fluorescence and UV detection of derivatized aldehydes in air samples using capillary electrophoresis 979(2002)409

Analysis of chitin oligosaccharides by capillary electrophoresis with laser-induced fluorescence 979(2002)431

Simultaneous determination of water-soluble vitamins in a vitamin-enriched drink by an in-capillary enzyme reaction method 986(2003)153

Determination of homocysteine in human plasma by micellar electrokinetic chromatography and in-capillary detection reaction with 2,2'-dipyridyl disulfide 990(2003)197

Determination of carbohydrates as their 3-aminophthalhydrazide derivatives by capillary zone electrophoresis with on-line chemiluminescence detection 992(2003)181

Determination of biogenic amines by 3-(2-furoyl)quinoline-2-carboxaldehyde and capillary electrophoresis with laser-induced fluorescence detection 998(2003)213

Derivatization, GC

Gas chromatographic determination of glutaraldehyde in the workplace atmosphere after derivatization with *O*-(2,3,4,5,6-pentafluorobenzyl)hydroxylamine on a solid-phase microextraction fibre 955(2002)117

Analysis of organotin compounds by grignard derivatization and gas chromatography-ion trap tandem mass spectrometry 962(2002)197

Simple off-line flash pyrolysis procedure with in situ silylation for the analysis of hydroxybenzenes in humic acids and coals 967(2002)235

Gas chromatographic-mass spectrometric quantification of 4-(5-)-methylimidazole in roasted coffee after ion-pair extraction 976(2002)285

Determination of *N*-nitrosamines in latex by sequential supercritical fluid extraction and derivatization 976(2002)301

Gas chromatographic analysis of the thermally unstable dimethyl methylphosphonate carbanion via trimethylsilyl derivatization 978(2002)177

Determination of primary aromatic amines in water food simulant using solid-phase analytical derivatization followed by gas chromatography coupled with mass spectrometry 983(2003)35 281

Evaluation of headspace solid-phase microextraction for the analysis of volatile carbonyl compounds in spirits and alcoholic beverages 984(2003)89

Determination of 4-alkylphenols by novel derivatization and gas chromatography-mass spectrometry 984(2003)237

Determination of acidic drugs in sewage water by gas chromatography—mass spectrometry as *tert*.-butyldimethylsilyl derivatives 985(2003)265

Determination of ethylene oxide by solid-phase microextraction device with on-fiber derivatization 991(2003)1

Derivatisation and gas chromatography-chemical ionisation mass spectrometry of selected synthetic and natural endocrine disruptive chemicals 991(2003)77

Comprehensive chemical derivatization for gas chromatography—mass spectrometry-based multi-targeted profiling of the major phytohormones 993(2003)89

Simultaneous analysis of biologically active aminoalkanephosphonic acids 998(2003)183

Determination of linear alkylbenzensulfonates in aqueous matrices by ion-pair solid-phase microextraction-in-port derivatization-gas chromatography-mass spectrometry 999(2003)51

Solvent extraction of organic molecules of exobiological interest for in situ analysis of the Martian soil 999(2003)165

Derivatisation reactions in the chromatographic analysis of chemical warfare agents and their degradation products (Review) 1000(2003)253

Derivatization, LC

Determination of etoposide phosphate intermediates by gradient liquid chromatography using postcolumn derivatization with cuprammonium hydroxide 952(2002)283

Liquid chromatographic determination of toxigenic secondary metabolites produced by *Fusarium* strains 955(2002)245

Rapid ion chromatography of L-ascorbic acid, nitrite, sulfite, oxalate, iodide and thiosulfate by isocratic elution utilizing a postcolumn reaction with cerium(IV) and fluorescence detection 956(2002)77

US Environmental Protection Agency Method 326.0, a new method for monitoring inorganic oxyhalides and optimization of the postcolumn derivatization for the selective determination of trace levels of bromate 956(2002)93

Determination of thyroid hormones in pharmaceutical preparations, after derivatization with 9-anthroylnitrile, by high-performance liquid chromatography with fluorescence detection 958(2002)299

High-performance liquid chromatographic separation and indirect fluorescence detection of thiols 972(2002)221

On-line identification of the antifungal constituents of *Erythrina vogelii* by liquid chromatography with tandem mass spectrometry, ultraviolet absorbance detection and nuclear magnetic resonance spectrometry combined with liquid chromatographic micro-fractionation 974(2002)123

Comparative study of naphthalene-2,3-dicarboxaldehyde and *o*-phthalaldehyde fluorogenic reagents for chromatographic detection of sphingoid bases 977(2002)69

Preconcentration and dansylation of aliphatic amines using $\rm C_{18}$ solid-phase packings. Application to the screening analysis in environmental water samples 978(2002)59

Development of hydrophilic fluorogenic derivatization reagents for thiols: 4-(*N*-acetylaminosulfonyl)-7-fluoro-2,1,3-benzoxadiazole and 4-(*N*-trichloroacetylaminosulfonyl)-7-fluoro-2,1,3-benzoxadiazole 982(2002)111

High-performance liquid chromatography assay for 1-deoxy-D-xylulose 5-phosphate synthase activity using fluorescence detection 986(2003)291

(2-Naphthoxy)acetyl chloride, a simple fluorescent reagent 987(2003)205

Quantitation of amino acids and amines in the same matrix by high-performance liquid chromatography, either simultaneously or separately 987(2003)291

New aspects of the simultaneous analysis of amino acids and amines as their o-phthaldialdehyde derivatives by high-performance liquid chromatography. Analysis of wine, beer and vinegar 987(2003)311

Determination of major phenolic compounds in water by reversed-phase liquid chromatography after pre-column derivatization with benzoyl chloride 988(2003)145

Monitoring dediazoniation product formation by highperformance liquid chromatography after derivatization 989(2003)221

Determination of T-2 toxin in cereal grains by liquid chromatography with fluorescence detection after immunoaffinity column clean-up and derivatization with 1-anthroylnitrile 989(2003)257

Simultaneous determination of neutral and acidic pharmaceuticals in wastewater by high-performance liquid chromatography-post-column photochemically induced fluorimetry 993(2003)29

Kinetic analysis and subambient temperature on-line on-column derivatization of an active aldehyde 995(2003)67

Isomerization of aldehyde-2,4-dinitrophenylhydrazone derivatives and validation of high-performance liquid chromatographic analysis 996(2003)95

Determination of dissolved thiols using solid-phase extraction and liquid chromatographic determination of fluorescently derivatized thiolic compounds 998(2003)31

Continuous ultrasound-assisted extraction coupled to on line filtration-solid-phase extraction-column liquid chromatography—post column derivatisation—fluorescence detection for the determination of *N*-methylcarbamates in soil and food 998(2003)51

Design of chiral monochloro-s-triazine reagents for the liquid chromatographic separation of amino acid enantiomers 998(2003)73

Derivatisation reactions in the chromatographic analysis of chemical warfare agents and their degradation products (Review) 1000(2003)253

Desirability function

Use of experimental design for the purge-and-trap-gas chromatography-mass spectrometry determination of methyl *tert.*-butyl ether, *tert.*-butyl alcohol and BTEX in groundwater at trace level 975(2002)113

Detection

see also Indirect detection

Detection, capillary techniques

Hyphenation of capillary separations with nuclear magnetic resonance spectroscopy (Review) 1000(2003)819

Detection, electrochromatography

Determination of purine and pyrimidine bases in DNA by micellar electrokinetic capillary chromatography with electrochemical detection 954(2002)267

Detection, electrophoresis

Capillary electrophoresis—electrochemistry microfluidic system for the determination of organic peroxides 952(2002)249

Separation and determination of emetine dithiocarbamate metal complexes by capillary electrophoresis with chemiluminescence detection of the tris(2,2'-bipyridine)-ruthenium(II) complex 958(2002)283

Ultrasensitive chemiluminescence detection in capillary electrophoresis (Review) 959(2002)1

Analysis of glyphosate, glufosinate and aminomethylphosphonic acid by capillary electrophoresis with indirect fluorescence detection 959(2002)309

Application of a contactless conductometric detector for the simultaneous determination of small anions and cations by capillary electrophoresis with dual-opposite end injection 964(2002)227

Laser-based non-fluorescence detection techniques for liquid separation systems (Review) 971(2002)1

Carbon fiber bundle-Au-Hg dual-electrode detection for capillary electrophoresis 971(2002)217

Miniaturization of batch- and flow-type chemiluminescence detectors in capillary electrophoresis 971(2002)255

Electrophoretic separations with polyether ether ketone capillaries and capacitively coupled contactless conductivity detection 978(2002)205

Separation and determination of phenolic compounds by capillary electrophoresis with chemiluminescence detection 978(2002)213

Handling and detection of 0.8 amol of a near-infrared cyanine dye by capillary electrophoresis with laser-induced fluorescence detection 979(2002)307

Integrated moulded polymer electrodes for performing conductivity detection on isotachophoresis microdevices 990(2003)11

Capillary zone electrophoresis in wide bore capillary tubes with fiber-coupled diode array detection 990(2003)23

Integration of a contactless conductivity detector into a commercial capillary cassette. Detection of inorganic cations and catecholamines 990(2003)45

Miniaturised isotachophoretic analysis of inorganic arsenic speciation using a planar polymer chip with integrated conductivity detection 990(2003)325

Evaluation of a sol-gel derived carbon composite electrode as an amperometric detector for capillary electrophoresis 991(2003)109

Determination of carbohydrates as their 3-aminophthalhydrazide derivatives by capillary zone electrophoresis with on-line chemiluminescence detection 992(2003)181

Separation of haloacetic acids in water by capillary zone electrophoresis with direct UV detection and contactless conductivity detection 993(2003)143

Highly sensitive indirect photometric detection of cations by capillary electrophoresis with the cationic dye chrysoidine 997(2003)87

Detection, GC

Electron-capture detector and multiple negative ions of aromatic hydrocarbons 952(2002)173

Rapid determination of butyltin species in water samples by multicapillary gas chromatography with atomic emission detection following headspace solid-phase microextraction 963(2002)195

Determination of methylmercury in human hair by ethylation followed by headspace solid-phase microextraction—gas chromatography—cold-vapour atomic fluorescence spectrometry 963(2002)345

Application of a pulse-discharge helium detector to the determination of neon in air and water 968(2002)263

Sulfur and nitrogen chemiluminescence detection in gas chromatographic analysis (Review) 976(2002)3

Identification and confirmation of traces of chlorinated fatty acids in fish downstream of bleached kraft pulp mills by gas chromatography with halogen-specific detection 994(2003)137

Simultaneous analysis of biologically active aminoalkanephosphonic acids 998(2003)183

Identification of aroma active compounds in orange essence oil using gas chromatography-olfactometry and gas chromatography-mass spectrometry 998(2003)201

Detection, LC

Chemiluminescence detection coupled to high-performance frontal analysis for the determination of unbound concentrations of drugs in protein binding equilibrium 952(2002)131

Analysis of spectinomycin by liquid chromatography with pulsed electrochemical detection 953(2002)123

New conductivity detection response equation for anions eluted with fully and partially ionised eluents in non-suppressed ion chromatography 956(2002)59

Rapid ion chromatography of L-ascorbic acid, nitrite, sulfite, oxalate, iodide and thiosulfate by isocratic elution utilizing a postcolumn reaction with cerium(IV) and fluorescence detection 956(2002)77

Determination of zwitterionic and cationic surfactants by highperformance liquid chromatography with chemiluminescenscent nitrogen detection 956(2002)237

Ion-pair reversed-phase liquid chromatography-electrospray mass spectrometry for the analysis of underivatized small peptides 957(2002)173

A comparative study of commercial liquid chromatographic detectors for the analysis of underivatized amino acids 961(2002)9

Fiber optic multi-channel protein detector for use in preparative continuous annular chromatography 967(2002)183

Laser-based non-fluorescence detection techniques for liquid separation systems (Review) 971(2002)1

Molecular mass characterization of polymers with strongly interacting groups using gel permeation chromatography-light scattering detection 976(2002)155

Determination of ethanol in alcoholic beverages by highperformance liquid chromatography-flame ionization detection using pure water as mobile phase 976(2002)387

Analysis of alkyl organoiodide mixtures by high-performance liquid chromatography using electrochemical detection with a post-column photochemical reactor 976(2002)423

Structural characterization by both positive and negative electrospray ion trap mass spectrometry of oligogalacturonates purified by high-performance anion-exchange chromatography 984(2003)185

New approach to the simultaneous analysis of catecholamines and tyrosines in biological fluids 987(2003)349

Condensation nucleation light scattering detection with ion chromatography for direct determination of glyphosate and its metabolite in water 989(2003)231

Simultaneous determination of neutral and acidic pharmaceuticals in wastewater by high-performance liquid chromatography-post-column photochemically induced fluorimetry 993(2003)29

Application of a single electrode, modified with polydiphenylamine and dodecyl sulfate, for the simultaneous amperometric determination of electro-inactive anions and cations in ion chromatography 997(2003)65

Use of disposable gold working electrodes for cation chromatography-integrated pulsed amperometric detection of sulfur-containing amino acids 997(2003)73

Some factors affecting separation and detection of amino acids by high-performance anion-exchange chromatography with integrated pulsed amperometric detection 997(2003)145

Liquid chromatography-inductively coupled plasma mass spectrometry (Review) 1000(2003)457

The role of chromatography in the hunt for red tide toxins (Review) 1000(2003)527

Detection, planar chromatography

Flame photometric detector for thin-layer chromatography 973(2002)151

Progress in forced-flow planar chromatography (Review) 1000(2003)985

Detection, SFE

Determination of total petroleum hydrocarbons in soil by dynamic on-line supercritical fluid extraction with infrared photometric detection 986(2003)319

Detection, solid-phase extraction

Rapid determination of ions by combined solid-phase extraction—diffuse reflectance spectroscopy 997(2003)41

Detection limit

How to estimate moments and quantiles of environmental data sets with non-detected observations? A case study on volatile organic compounds in marine water samples 975(2002)123

Dextrose equivalents

Dextrin characterization by high-performance anion-exchange chromatography-pulsed amperometric detection and size-exclusion chromatography-multi-angle light scattering-refractive index detection 997(2003)79

Diabetic nephropathy

High-performance capillary zone electrophoretic assay for markers of diabetic nephropathy in plasma and urine 987(2003)477

Dialysis

see also Microdialysis

Chemically facilitated chromium(VI) transport throughout an anion-exchange membrane. Application to an optical sensor for chromium(VI) monitoring 963(2002)205

Recent applications of sample preparation techniques in food analysis (Review) 975(2002)47

Optimisation of a dialytic set-up for liquid chromatography: automated separation and preconcentration of ciprofloxacin 975(2002)199

Determination of hexavalent chromium by on-line dialysis-ion chromatography in a matrix of strong colourants and trivalent chromium 988(2003)151

Characterisation of legumes by enzymatic hydrolysis, microdialysis sampling, and micro-high-performance anion-exchange chromatography with electrospray ionisation mass spectrometry 992(2003)67

Fractionation of starch hydrolysates into dextrins with narrow molecular mass distribution and their detection by high-performance anion-exchange chromatography with pulsed amperometric detection 992(2003)75

Diameter-based selectivity

Practical implications of ionic strength effects on particle retention in thermal field-flow fractionation 984(2003)67

Diastereomer separation

Separation of diastereoisomers of podophyllum lignans by micellar electrokinetic chromatography 959(2002)263

Molecularly imprinted monolithic stationary phases for liquid chromatographic separation of enantiomers and diastereomers 984(2003)273

Design of chiral monochloro-s-triazine reagents for the liquid chromatographic separation of amino acid enantiomers 998(2003)73

Dielectric friction

Capillary electrophoresis in aqueous-organic media. Ionic strength effects and limitations of the Hubbard-Onsager dielectric friction model 964(2002)213

Diesel fue

High-speed peak matching algorithm for retention time alignment of gas chromatographic data for chemometric analysis 996(2003)141

Diffuse reflectance spectroscopy

Rapid determination of ions by combined solid-phase extraction-diffuse reflectance spectroscopy 997(2003)41

Diffusion

New model of surface diffusion in reversed-phase liquid chromatography 961(2002)23

Analysis of diffusion models for protein adsorption to porous anion-exchange adsorbent 962(2002)29

Physicochemical measurements by the reversed-flow version of inverse gas chromatography (Review) 969(2002)3

Novel general expressions that describe the behavior of the height equivalent to a theoretical plate in chromatographic systems involving electrically-driven and pressure-driven flows 979(2002)447

(Micellar) electrokinetic chromatography: an interesting solution for the liquid phase separation dilemma (Review) 1000(2003)935

Diffusion coefficients

Heterogeneous catalysis on solids of gases diffusing through a liquid layer, studied by inverse gas chromatography 977(2002)107

Axial and radial diffusion coefficients in a liquid chromatography column and bed heterogeneity 994(2003)1

Diffusivity

Surface and pore diffusion in macroporous and gel-filled gigaporous stationary phases for protein chromatography 959(2002)65

Evaluation of protein-A chromatography media 989(2003)139

Dinophysis acuta

Liquid chromatography—mass spectrometry of spiroketal stereoisomers of pectenotoxins and the analysis of novel pectenotoxin isomers in the toxic dinoflagellate *Dinophysis acuta* from New Zealand 992(2003)141

Diode array detection

Capillary zone electrophoresis in wide bore capillary tubes with fiber-coupled diode array detection 990(2003)23

Hyphenation and hypernation. The practice and prospects of multiple hyphenation (Review) 1000(2003)325

Diol-silica stationary phases

In flow activation of diol-silica with cyanogen bromide and triethylamine for preparing high-performance affinity chromatographic columns 984(2003)9

Disinfection by-products

US Environmental Protection Agency Method 326.0, a new method for monitoring inorganic oxyhalides and optimization of the postcolumn derivatization for the selective determination of trace levels of bromate 956(2002)93

Disk drive components

Monitoring trace anion contamination in disk drive components 997(2003)259

Dispersion

see also Axial dispersion and Matrix solid-phase dispersion

Electromigration dispersion in capillary zone electrophoresis. Experimental validation of use of the Haarhoff-Van der Linde function 959(2002)229

Band dispersion in chromatography—a universal expression for the contribution from the mobile zone 960(2002)7

Fluidisation and dispersion behaviour of small high density pellicular expanded bed adsorbents 964(2002)77

Expressions for the C-term in the presence of pore flow 965(2002)75

Displacement chromatography

Displacement chromatography of isomers and therapeutic compounds 959(2002)85

Preparative reversed-phase liquid chromatography of peptides. Isocratic two-step elution system for high loads on analytical columns 972(2002)87

Comparison of preparative characteristics of micro open parallel plate separators and microbore columns for concentration of trace species by displacement chromatography 989(2003)3

Displacers

Stationary phase effects on the dynamic affinity of low-molecular-mass displacers 954(2002)127

Dissociation constants

Determination of the dissociation constants (pK_a) of basic acetylcholinesterase inhibitors by reversed-phase liquid chromatography 958(2002)59

Retention of ionizable compounds in high-performance liquid chromatography. 14. Acid-base pK values in acetonitrile-water mobile phases 964(2002)55

Lipophilicity and pK_a estimates from gradient high-performance liquid chromatography 965(2002)117

Prediction of chromatographic retention, pK_a values and optimization of the separation of polyphenolic acids in strawberries 975(2002)299

Rapid screening of pK_a values of pharmaceuticals by pressureassisted capillary electrophoresis combined with short-end injection 979(2002)369

Determination of pKa values of 2-amino-2-oxazolines by capillary electrophoresis 984(2003)253

Comparison of the acidity of residual silanol groups in several liquid chromatography columns 986(2003)33

Disulfide bonds

Towards the understanding of molecular mechanisms in the early stages of heat-induced aggregation of β -lactoglobulin AB 970(2002)275

DNA sequencing

Multiplexed capillary electrophoresis for DNA sequencing with ultra violet absorption detection 960(2002)229

Dodecylsulfate-modified stationary phase

Studies on the separation of hydronium ion using surfactant-modified reversed-phase stationary phases and eluents containing an acidified electrolyte 986(2003)263

Doping analysis

Artifact formation due to ethyl thio-incorporation into silylated steroid structures as determined in doping analysis 954(2002)199

Improvement in steroid screening for doping control with special emphasis on stanozolol 985(2003)375

Application of comprehensive two-dimensional gas chromatography to drugs analysis in doping control (Review) 1000(2003)109

Droplets

Acoustic field assisted demixing of aqueous two-phase systems 977(2002)163

Drosophila melanogaster

Investigations of cyclophilin interactions with oligopeptides containing proline by affinity capillary electrophoresis 982(2002)275

Drug-membrane interactions

Immobilized artificial membrane liquid chromatography: proposed guidelines for technical optimization of retention measurements 953(2002)39

Immobilized liposome chromatography to study drug-membrane interactions. Correlation with drug absorption in humans 961(2002)113

Drug-protein binding

Chemiluminescence detection coupled to high-performance frontal analysis for the determination of unbound concentrations of drugs in protein binding equilibrium 952(2002)131

DryLab

Computerized design of separation strategies by reversed-phase liquid chromatography: development of DryLab software (Review) 965(2002)175

Computer-assisted method development and optimization in HPLC 991(2003)281

DS-Plus suppressor

Recent advances in ion chromatography suppressor improve anion separation and detection 956(2002)15

Dual-field and flow-programming

Field and flow programming in frit-inlet asymmetrical flow field-flow fractionation 955(2002)263

Dubinin-Radushkevich equation

Determination of dependencies between the specific retention volumes and the parameters characterising adsorbent properties 969(2002)87

Dust

Simultaneous extraction of di(2-ethylhexyl) phthalate and nonionic surfactants from house dust. Concentrations in floor dust from 15 Danish schools 986(2003)179

Analysis of water extracts from airborne dust samples by capillary isotachophoresis 990(2003)303

Dynamic affinity

Stationary phase effects on the dynamic affinity of low-molecular-mass displacers 954(2002)127

Dynamic capacity

Evaluation of protein-A chromatography media 989(2003)139

Dynamic coating

Ion chromatography on reversed-phase materials coated with mixed cationic and nonionic surfactants 985(2003)359

Modification of ion chromatographic separations by ionic and nonionic surfactants 997(2003)21

Dynamic contact angle

New approach to characterise physicochemical properties of solid substrates by inverse gas chromatography at infinite dilution. I. Some new methods to determine the surface areas of some molecules adsorbed on solid surfaces 969(2002)17

Dynamic pH junction

Determination of pyridine and adenine nucleotide metabolites in *Bacillus subtilis* cell extract by sweeping borate complexation capillary electrophoresis 989(2003)293

Dynamic pH junction-sweeping

On-line preconcentration strategies for trace analysis of metabolites by capillary electrophoresis (Review) 1000(2003)917



Echinacea purpurea

Simultaneous analysis of caffeic acid derivatives and alkamides in roots and extracts of *Echinacea purpurea* by high-performance liquid chromatography-photodiode array detection-electrospray mass spectrometry 986(2003)73

Echo-peak calibration technique

Alternative calibration approaches to compensate the effect of co-extracted matrix components in liquid chromatography– electrospray ionisation tandem mass spectrometry analysis of pesticide residues in plant materials 973(2002)13

Edible oils

Solid-phase clean-up in the liquid chromatographic determination of polycyclic aromatic hydrocarbons in edible oils 988(2003)33

Efficiency

see also Column efficiency

Improving separation efficiency of capillary zone electrophoresis of tryptophan and phenylalanine with the transient moving chemical reaction boundary method 952(2002)39

Study of flow profile distortions and efficiency in counter pressure moderated partial filling micellar electrokinetic chromatography in relation to the relative buffer zone lengths 960(2002)209

Adsorptive membrane chromatography for purification of plasmid DNA 989(2003)165

Reproducible preparative liquid chromatography columns 992(2003)41

Eigenmobilities

Eigenmobilities in background electrolytes for capillary zone electrophoresis. I. System eigenpeaks and resonance in systems with strong electrolytes 960(2002)187

Eigen peaks

Position and intensity of system (eigen) peaks in capillary zone electrophoresis 960(2002)175

Electrochemical conversion

Strategies for the liquid chromatographic-mass spectrometric analysis of non-polar compounds (Review) 1000(2003)549

Electrochemical detection

see also Amperometric detection, Potentiometric detection and Pulsed amperometric detection

Capillary electrophoresis-electrochemistry microfluidic system for the determination of organic peroxides 952(2002)249

Analysis of spectinomycin by liquid chromatography with pulsed electrochemical detection 953(2002)123

Determination of purine and pyrimidine bases in DNA by micellar electrokinetic capillary chromatography with electrochemical detection 954(2002)267

Carbon fiber bundle-Au-Hg dual-electrode detection for capillary electrophoresis 971(2002)217

Evaluation of a sol-gel derived carbon composite electrode as an amperometric detector for capillary electrophoresis 991(2003)109

Application of a single electrode, modified with polydiphenylamine and dodecyl sulfate, for the simultaneous amperometric determination of electro-inactive anions and cations in ion chromatography 997(2003)65

Use of disposable gold working electrodes for cation chromatography-integrated pulsed amperometric detection of sulfur-containing amino acids 997(2003)73

Some factors affecting separation and detection of amino acids by high-performance anion-exchange chromatography with integrated pulsed amperometric detection 997(2003)145

Electrochemistry

Fast liquid chromatography-electrochemistry-mass spectrometry of ferrocenecarboxylic acid esters 974(2002)103

Electrochromatography

Capillary electrochromatography of peptides on a column packed with tentacular weak cation-exchanger particles 953(2002)239

Determination of purine and pyrimidine bases in DNA by micellar electrokinetic capillary chromatography with electrochemical detection 954(2002)267

Modeling of retention behavior in capillary electrochromatography from chromatographic and electrophoretic data 959(2002)241

Effect of preparatory conditions on the performance of photopolymerized sol-gel monoliths for capillary electrochromatography 961(2002)45

Evaluation of extended light path capillary and etched capillary for use in open tubular capillary electrochromatography 961(2002)285

Expressions for the C-term in the presence of pore flow 965(2002)75

Capillary electrochromatography of proteins with polymer-based strong-cation-exchanger microspheres 965(2002)83

Polyrotaxane approach for synthesis of continuous beds for capillary electrochromatography 971(2002)225

Ability of porous graphitic carbon to support electroosmotic flow in capillary electrochromatography 973(2002)177

Novel surface modification of polymer-based separation media controlling separation selectivity, retentivity and generation of electroosmotic flow 979(2002)3

Peak compression effects in capillary electrochromatography of basic drug substances using a strong cation-exchanger 979(2002)335

Novel general expressions that describe the behavior of the height equivalent to a theoretical plate in chromatographic systems involving electrically-driven and pressure-driven flows 979(2002)447

Capillary electrochromatographic separation of non-steroidal anti-inflammatory drugs with a histidine bonded phase 982(2002)293

Role of buffer concentration and applied voltage in obtaining a good separation in planar electrochromatography 983(2003)247

Electrochromatography with a 2.7 mm inner diameter monolithic column 983(2003)255

Protein proteolysis and the multi-dimensional electrochromatographic separation of histidine-containing peptide fragments on a chip 984(2003)97

Packing structure and self-heating in capillary electrochromatography 986(2003)297

Separation of peptides by pressurized capillary electrochromatography 987(2003)453

Automated microgradient system for capillary electrochromatography 990(2003)3

Influencing electroosmotic flow and selectivity in open tubular electrochromatography by tetrakis(pentafluorophenyl)porphyrin as capillary wall modifier 990(2003)111

Use of short-end injection capillary packed with a glycopeptide antibiotic stationary phase in electrochromatography and capillary liquid chromatography for the enantiomeric separation of hydroxy acids 990(2003)143

Open tubular capillary electrochromatography of underivatized amino acids using Rh(III) tetrakis(phenoxyphenyl)porphyrinate as wall modifier 990(2003)159

Affinity electrochromatography of acidic drugs using a liposome-modified capillary 990(2003)281

Behavior of neutral solutes in pressurized flow driven electrochromatography using a mixed stationary phase of ODS and anion-exchange 995(2003)209

Enantioselective ligand exchange in modern separation techniques (Review) 1000(2003)891

Electrodes

Carbon fiber bundle-Au-Hg dual-electrode detection for capillary electrophoresis 971(2002)217

Integrated moulded polymer electrodes for performing conductivity detection on isotachophoresis microdevices 990(2003)11

Evaluation of a sol-gel derived carbon composite electrode as an amperometric detector for capillary electrophoresis 991(2003)109

Application of a single electrode, modified with polydiphenylamine and dodecyl sulfate, for the simultaneous amperometric determination of electro-inactive anions and cations in ion chromatography 997(2003)65

Use of disposable gold working electrodes for cation chromatography-integrated pulsed amperometric detection of sulfur-containing amino acids 997(2003)73

Electrokinetic chromatography

see also Micellar electrokinetic chromatography and Microemulsion electrokinetic chromatography

Separation and simultaneous determination of water-soluble and fat-soluble vitamins by electrokinetic capillary chromatography 953(2002)257

Novel alkyl-modified anionic siloxanes as pseudostationary phases for electrokinetic chromatography. III. Performance in organic-modified buffers 959(2002)255

Rapid estimation of octanol-water partition coefficients using synthesized vesicles in electrokinetic chromatography 962(2002)207

Characterization of solvation properties of lipid bilayer membranes in liposome electrokinetic chromatography 973(2002)167

Separation of opiate alkaloids by electrokinetic chromatography with sulfated-cyclodextrin as a pseudo-stationary phase 985(2003)493

Mixed-mode electrokinetic chromatography of aromatic bases with two pseudo-stationary phases and pH control 997(2003)207

Enantioselective ligand exchange in modern separation techniques (Review) 1000(2003)891

(Micellar) electrokinetic chromatography: an interesting solution for the liquid phase separation dilemma (Review) 1000(2003)935

Electrokinetic injection

Fast, efficient capillary electrophoresis method for measuring nucleotide degradation and metabolism 952(2002)275

Electrokinetic supercharging

Application of electrokinetic supercharging capillary zone electrophoresis to rare-earth ore samples 990(2003)335

Electrolysis

Analysis of active chemical species generated by electrolysis using non-aqueous capillary electrophoresis. Detection of the anion radical and the divalent anion of tetracyanoquinodimethane 979(2002)91

Electromobility focusing

Voltage-controlled separation of proteins by electromobility focusing in a dialysis hollow fiber 985(2003)455

Electron affinities

Electron-capture detector and multiple negative ions of aromatic hydrocarbons 952(2002)173

Electron-capture detection

Electron-capture detector and multiple negative ions of aromatic hydrocarbons 952(2002)173

Electron-capture dissociation

High-performance liquid chromatography—mass spectrometry and electron-capture dissociation tandem mass spectrometry of osteocalcin. Determination of γ -carboxyglutamic acid residues 962(2002)95

Electroosmotic flow

Electroosmotic flow controllable coating on a capillary surface by a sol-gel process for capillary electrophoresis 952(2002)255

Determination of electroosmotic flow mobility with a pressuremediated dual-ion technique for capillary electrophoresis with conductivity detection using organic solvents 960(2002)199

Effects of metal ions on concentration of DNA in high-conductivity media by capillary electrophoresis 966(2002)195

Control of electroosmotic flow in zirconia-coated capillaries 971(2002)199

Characterizing electroosmotic flow in microfluidic devices 971(2002)249

Capillary zone electrophoresis in laboratory-made fluorinated ethylene propylene capillaries 972(2002)283

Ability of porous graphitic carbon to support electroosmotic flow in capillary electrochromatography 973(2002)177

Novel surface modification of polymer-based separation media controlling separation selectivity, retentivity and generation of electroosmotic flow 979(2002)3

Electroosmotic flow variations caused by the volatility of buffer components: diagnosis and therapy 979(2002)97

Comparison of the separation of large DNA fragments in the presence and absence of electroosmotic flow at high pH 979(2002)299

Novel general expressions that describe the behavior of the height equivalent to a theoretical plate in chromatographic systems involving electrically-driven and pressure-driven flows 979(2002)447

Simultaneous separation of 11 protease and reverse transcriptase inhibitors for human immunodeficiency virus therapy by coelectroosmotic capillary zone electrophoresis 982(2002)153

Influencing electroosmotic flow and selectivity in open tubular electrochromatography by tetrakis(pentafluorophenyl)porphyrin as capillary wall modifier 990(2003)111

Electroosmotic flow mobility

Behavior of neutral solutes in pressurized flow driven electrochromatography using a mixed stationary phase of ODS and anion-exchange 995(2003)209

Electrophoresis

see also Capillary array electrophoresis, Capillary electrophoresis, Preparative electrophoresis

Free-flow electrophoresis in a microfabricated chamber with a micromodule fraction separator. Continuous separation of proteins 990(2003)169

Electrophoretically mediated microanalysis

Inhibition study of rhodanese by means of electrophoretically mediated microanalysis 990(2003)189

Electrophoretic mobility

Prediction of electrophoretic mobilities of alkyl- and alkenylpyridines in capillary electrophoresis using artificial neural networks 971(2002)207

Determination of the absolute mobility and the equivalent ionic conductivity of NpO_2^+ at 25 °C and at infinite dilution by capillary electrophoresis-inductively coupled plasma-mass spectrometry 994(2003)199

Electrophoretic mobility prediction

Mathematical representation of electrophoretic mobility of basic drugs in ternary solvent buffers in capillary zone electrophoresis 994(2003)191

Electro-planar chromatography

Progress in forced-flow planar chromatography (Review) 1000(2003)985

Electrospray ionization

see also Mass spectrometry

Analysis of acidic drugs in the effluents of sewage treatment plants using liquid chromatography-electrospray ionization tandem mass spectrometry 952(2002)139

Mechanistic study of enantiomeric recognition with native γ -cyclodextrin by capillary electrophoresis, reversed-phase liquid chromatography, nuclear magnetic resonance spectroscopy, electrospray mass spectrometry and circular dichroism techniques 987(2003)409

Analysis of food proteins and peptides by chromatography and mass spectrometry (Review) 1000(2003)609

The potential of organic (electrospray- and atmospheric pressure chemical ionisation) mass spectrometric techniques coupled to liquid-phase separation for speciation analysis (Review) 1000(2003)841

On-line micellar electrokinetic chromatography-mass spectrometry: feasibility of direct introduction of non-volatile buffer and surfactant into the electrospray interface (Review) 1000(2003)953

Electrostatic interactions

Aqueous chromatography utilizing hydrophobicity-modified anionic temperature-responsive hydrogel for stationary phases 958(2002)109

Study on protein adsorption kinetics to a dye-ligand adsorbent by the pore diffusion model 964(2002)35

Electrostatic ion chromatography

Rapid and direct determination of iodide in seawater by electrostatic ion chromatography 956(2002)103

Mechanistic studies on the separation of cations in zwitterionic ion chromatography 997(2003)13

Electrostatic parameters

Extended thermodynamic approach to ion interaction chromatography: a thorough comparison with the electrostatic approach, and further quantitative validation 958(2002)51

Electrothermal vaporization

Development of new analytical methods for selenium speciation in selenium-enriched yeast material 976(2002)409

Elemental speciation

Elemental speciation by chromatographic separation with inductively coupled plasma mass spectrometry detection (Review) 974(2002)1

Liquid chromatography-inductively coupled plasma mass spectrometry (Review) 1000(2003)457

The potential of organic (electrospray- and atmospheric pressure chemical ionisation) mass spectrometric techniques coupled to liquid-phase separation for speciation analysis (Review) 1000(2003)841

Eluotropic strength

Eluotropic strength in non-aqueous liquid chromatography with porous graphitic carbon 973 (2002) 61

Elution order

Influence of chromatographic conditions on separation in comprehensive gas chromatography 962(2002)135

Elution order reversal

True or apparent reversal of elution order during chiral highperformance liquid chromatography monitored by a polarimetric detector under different mobile phase conditions 995(2003)79

Elution temperature

Extending the range of compounds amenable for gas chromatography-mass spectometric analysis 991(2003)217

Enantiomeric excess

Impact of normal-phase gradient elution in chiral chromatography: a novel, robust, efficient and rapid chiral screening procedure 983(2003)101

Enantiomeric ratio

Fast and precise determination of phenthoate and its enantiomeric ratio in soil by the matrix solid-phase dispersion method and liquid chromatography 977(2002)17

Enantiomer separation

see also Chiral stationary phases

Study of the adsorption equilibria of the enantiomers of 1-phenyl-1-propanol on cellulose tribenzoate using a microbore column 953(2002)55

Continuous fractionation of enantiomer pairs in free solution using an electrophoretic analog of simulated moving bed chromatography 953(2002)263

Measurement and modeling of the equilibrium behavior of the Tröger's base enantiomers on an amylose-based chiral stationary phase 955(2002)35

Separation of chiral sulfoxides by liquid chromatography using macrocyclic glycopeptide chiral stationary phases 955(2002)53

New triazine spectroscopic reagent for the separation of DLamino acids by micellar electrokinetic chromatography 955(2002)125

Chiral separation of amino acids derivatized with fluoresceine-5-isothiocyanate by capillary electrophoresis and laser-induced fluorescence detection using mixed selectors of β -cyclodextrin and sodium taurocholate 955(2002)133

Direct high-performance liquid chromatographic enantioseparation of apolar β -amino acids on a quinine-derived chiral anion-exchanger stationary phase 955(2002)141

Experimental investigation of the behavior of gas phase simulated moving beds 957(2002)211

Unusual effect of column temperature on chromatographic enantioseparation of dihydropyrimidinone acid and methyl ester on amylose chiral stationary phase 958(2002)69

Effects of temperature on retention of chiral compounds on a ristocetin A chiral stationary phase 958(2002)89

Evaluation of a penicillin G acylase-based chiral stationary phase towards a series of 2-aryloxyalkanoic acids, isosteric analogs and 2-arylpropionic acids 958(2002)131

Development of a validated capillary electrophoresis method for enantiomeric purity testing of dexchlorpheniramine maleate 958(2002)291 Liquid chromatographic resolution of racemic amines, amino alcohols and related compounds on a chiral crown ether stationary phase 959(2002)75

Liquid chromatographic method development for determination of fungicide epoxiconazole enantiomers by achiral and chiral column switching technique in water and soil 959(2002)143

Comparison of capillary electrophoresis and reversed-phase liquid chromatography for determination of the enantiomeric purity of an M3 antagonist 959(2002)299

Enantioseparation of various amino acid derivatives on a quinine based chiral anion-exchange selector at variable temperature conditions. Influence of structural parameters of the analytes on the apparent retention and enantioseparation characteristics 960(2002)97

Use of full-column imaging capillary isoelectric focusing for the rapid determination of the operating conditions in the preparative-scale continuous free-flow isoelectric focusing separation of enantiomers 960(2002)241

Quantitative approach for the screening of cyclodextrins by nuclear magnetic resonance spectroscopy in support of chiral separations in liquid chromatography and capillary electrophoresis. Enantioseparation of norgestrel with α -, β - and γ -cyclodextrins 961(2002)257

Evaluation of extended light path capillary and etched capillary for use in open tubular capillary electrochromatography 961(2002)285

Application of the general rate model and the generalized Maxwell–Stefan equation to the study of the mass transfer kinetics of a pair of enantiomers 962(2002)57

Colominic acid: a novel chiral selector for capillary electrophoresis of basic drugs 962(2002)221

Liquid-phase microextraction combined with capillary electrophoresis, a promising tool for the determination of chiral drugs in biological matrices 963(2002)303

Determination of chiral sulfoxides in plasma by normal-phase liquid chromatography-atmospheric pressure chemical ionization mass spectrometry 964(2002)161

Practice and theory of enantioselective complexation gas chromatography (Review) 965(2002)315

Screening approach for chiral separation of pharmaceuticals. Part II. Reversed-phase liquid chromatography 966(2002)119

Enantiomeric separations using poly(L-valine) and poly(L-leucine) surfactants. Investigation of steric factors near the chiral center 966(2002)179

Chiral liquid chromatography separation and chiroptical properties of the enantiomers of dimethyl α -hydroxyfarnesylphosphonate, a precursor of a farnesyl protein transferase inhibitor 966(2002)221

Preparation of immunoaffinity columns for direct enantiomeric separation of amphetamine and/or methamphetamine 967(2002)191

Enantiomer separation of flavour and fragrance compounds by liquid chromatography using novel urea-covalent bonded methylated β-cyclodextrins on silica 968(2002)31

Polyrotaxane approach for synthesis of continuous beds for capillary electrochromatography 971(2002)225

Enantioseparation of phenothiazines in cyclodextrin-modified micellar electrokinetic chromatography 971(2002)261

Determination of the enantiomeric purity of nucleoside analogs related to d4T and acyclovir, new potential antiviral agents, using liquid chromatography on cellulose chiral stationary phases 972(2002)211

Chromatographic enrichment and enantiomer separation of axially chiral polybrominated biphenyls in a technical mixture 973(2002)123

Comparing cyclodextrin derivatives as chiral selectors for enantiomeric separation in capillary electrophoresis 973(2002)187

Separation of stereoisomers of several furan derivatives by capillary gas chromatography-mass spectrometry, supercritical fluid chromatography, and liquid chromatography using chiral stationary phases 977(2002)125

Comparative study on the enantiomer separation of 1,1'-binaphthyl-2,2'diyl hydrogenphosphate and 1,1'-bi-2-naphthol by liquid chromatography and capillary electrophoresis using single and combined chiral selector systems 977(2002)225

Super/subcritical fluid chromatography chiral separations with macrocyclic glycopeptide stationary phases 978(2002)185

Chiral separation of amino acids by capillary electrophoresis with octyl- β -thioglucopyranoside as chiral selector 978(2002)221

Separation of aromatic aminophosphonic acid enantiomers by capillary electrophoresis with the application of cyclodextrins 979(2002)115

Effect of feed zone width on product purity in preparative-scale, continuous free-flow isoelectric focusing separation of enantiomers 979(2002)123

Simultaneous separation of different enantiomeric pairs in capillary electrophoresis by mixing different hemispherodextrins, a very versatile class of receptors 979(2002)137

Separation and enantioseparation of derivatized amino acids and biogenic amines by high-performance liquid chromatography with reversed and chiral stationary phases 979(2002)191

Copolymeric (1*R-trans*)-*N*,*N'*-1,2-cyclohexylene-bisbenzamide oligodimethylsiloxane chiral stationary phase for gas chromatography 982(2002)119

Enantioselective ion-exclusion chromatography on teicoplanin aglycone and (+)-(18-crown-6)-2,3,11,12-tetracarboxylic acid stationary phases 983(2003)91

Impact of normal-phase gradient elution in chiral chromatography: a novel, robust, efficient and rapid chiral screening procedure 983(2003)101

Liquid chromatographic separation of phosphoramidate diastereomers on a polysaccharide-type chiral stationary phase 983(2003)115

Exploration of the electrophoretic behaviour of borane cluster anions and of the capability of capillary electrophoresis to separate them chirally 984(2003)121

Preparation and application of a new modified liquid chromatographic chiral stationary phase based on (+)-(18-crown-6)-2,3,11,12-tetracarboxylic acid 984(2003)163

Chiral separation of amines with *N*-benzoxycarbonylglycyl-*L*-proline as selector in non-aqueous capillary electrophoresis using methanol and 1,2-dichloroethane in the background electrolyte 984(2003)261

Molecularly imprinted monolithic stationary phases for liquid chromatographic separation of enantiomers and diastereomers 984(2003)273

Chiral separation of γ -butyrolactone derivatives by gas chromatography on 2,3-di-O-methyl-6-O-tert.-butyldimethylsilyl- β -cyclodextrin 985(2003)321

Determination of free L- and D-alanine in hydrolysed protein fertilisers by capillary electrophoresis 985(2003)463

Study of tryptophan enantiomer binding to a teicoplanin-based stationary phase using the perturbation technique. Investigation of the role of sodium perchlorate in solute retention and enantioselectivity 986(2003)45

Separation of triadimefon and triadimenol enantiomers and diastereoisomers by supercritical fluid chromatography 986(2003)135

Development of a chiral non-aqueous capillary electrophoretic system using the partial filling technique with UV and mass spectrometric detection 986(2003)143

Numerical determination of the competitive isotherm of enantiomers 986(2003)207

Cholesterol bonded phase as a separation medium in liquid chromatography. Evaluation of properties and applications 986(2003)253

Enantiomer separation of *N*-protected amino acids by non-aqueous capillary electrophoresis and high-performance liquid chromatography with *tert*.-butyl carbamoylated quinine in either the background electrolyte or the stationary phase 987(2003)421

Enantioseparation of racemic N-acylarylalkylamines on various amino alcohol derived π -acidic chiral stationary phases 987(2003)429

Enantiomeric resolution of a series of chiral sulfoxides by highperformance liquid chromatography on polysaccharide-based columns with multimodal elution 987(2003)445

Capillary electrophoretic separation of enantiomers in a high-pH background electrolyte by means of the single-isomer chiral resolving agent octa(6-O-sulfo)-γ-cyclodextrin 987(2003)459

Quantitation of the enantiomers of ofloxacin by capillary electrophoresis in the parts per billion concentration range for in vitro drug absorption studies 988(2003)135

Preparative-scale isoelectric trapping enantiomer separations 989(2003)73

Electrophoretic enantiomer separations at high pH using the new, single-isomer octakis(2,3-dimethyl-6-O-sulfo)- γ -cyclodextrin as chiral resolving agent 990(2003)63

Comparison of enantioseparations using Cu(II) complexes with L-amino acid amides as chiral selectors or chiral stationary phases by capillary electrophoresis, capillary electrochromatography and micro liquid chromatography 990(2003)75

Enantioseparation of dipeptides by capillary electrochromatography on a teicoplanin aglycone chiral stationary phase 990(2003)83

Enantioseparation of basic pharmaceutical compounds by capillary electrophoresis using sulfated cyclodextrins.

Application to E-6006, a novel antidepressant 990(2003)91

Theoretical and experimental study of binary perturbation peaks with focus on peculiar retention behaviour and vanishing peaks in chiral liquid chromatography 991(2003)31

New ligand exchange chiral stationary phase for the liquid chromatographic resolution of α - and β -amino acids 992(2003)47

Comparison of Chirasil-DEX CB as gas chromatographic and ULMO as liquid chromatographic chiral stationary phase for enantioseparation of aryl- and heteroarylcarbinols 992(2003)151

Enantioselective liquid chromatography of C_3 -chiral 2,3-dihydro-1,2,5-benzothiadiazepin-4(5H)-one and thione 1,1-dioxides on polyacrylamide- and polysaccharide-based chiral stationary phases 993(2003)17

Mixed chiral stationary phase containing modified resorcinarene and β -cyclodextrin selectors bonded to a polysiloxane for enantioselective gas chromatography 994(2003)127

Enantiomeric separation of acidic compounds of pharmaceutical interest by capillary electrochromatography employing glycopeptide antibiotic stationary phases 994(2003)227

True or apparent reversal of elution order during chiral highperformance liquid chromatography monitored by a polarimetric detector under different mobile phase conditions 995(2003)79

Different multidimensional chromatographic approaches applied to the study of wine malolactic fermentation 995(2003)161

Enantiomeric separation of tocainide and its analogues on an optically active crown ether-based stationary phase by liquid chromatography 996(2003)233

Fast enantioseparation of arylglycine amides by capillary electrophoresis with highly sulfated- β -cyclodextrin as a chiral selector 998(2003)221

Determination of the interconversion energy barrier of enantiomers by separation methods (Review) 1000(2003)779

Enantioselective ligand exchange in modern separation techniques (Review) 1000(2003)891

Enantiomer separation, indirect

Design of chiral monochloro-s-triazine reagents for the liquid chromatographic separation of amino acid enantiomers 998(2003)73

Enantiorecognition

Practice and theory of enantioselective complexation gas chromatography (Review) 965(2002)315

Enantioselective complexation

Practice and theory of enantioselective complexation gas chromatography (Review) 965(2002)315

Enantioselective inclusion, GC

Extraordinary chiral discrimination in inclusion gas chromatography. Thermodynamics of enantioselectivity between a racemic perfluorodiether and a modified γ -cyclodextrin (Review) 1000(2003)311

Enantioselective ligand exchange

Enantioselective ligand exchange in modern separation techniques (Review) 1000(2003)891

Enantioselectivity

Practice and theory of enantioselective complexation gas chromatography (Review) 965(2002)315

Extraordinary chiral discrimination in inclusion gas chromatography. Thermodynamics of enantioselectivity between a racemic perfluorodiether and a modified γ -cyclodextrin (Review) 1000(2003)311

Energy barrier to interconversion

Determination of the interconversion energy barrier of enantiomers by separation methods (Review) 1000(2003)779

Energy heterogeneity

Determination of surface heterogeneity profiles on graphite by finite concentration inverse gas chromatography 969(2002)323

Environmental analysis

see also Special Issue Index

Analysis of antifouling biocides Irgarol 1051 and Sea Nine 211 in environmental water samples using solid-phase microextraction and gas chromatography 952(2002)215

Solid-phase microextraction coupled to high-performance liquid chromatography to determine phenolic compounds in water samples 953(2002)79

Determination of benzylsuccinic acid in gasoline-contaminated groundwater by solid-phase extraction coupled with gas chromatography-mass spectrometry 953(2002)215

Determination of inorganic cations and ammonium in environmental waters by ion chromatography with a high-capacity cation-exchange column 956(2002)181

Accurate mass analysis of ethanesulfonic acid degradates of acetochlor and alachlor using high-performance liquid chromatography and time-of-flight mass spectrometry 957(2002)3

Analysing fluorobenzoate tracers in groundwater samples using liquid chromatography-tandem mass spectrometry. A tool for leaching studies and hydrology 957(2002)11

Environmental water monitoring by capillary electrophoresis and result comparison with solvent chemistry techniques 957(2002)17

Analysis of polar pesticides in rainwater in Denmark by liquid chromatography-tandem mass spectrometry 957(2002)27

Computer-assisted automatic peak recognition and result evaluation for analysis of chlorinated hydrocarbons in environmental samples 957(2002)37

Liquid chromatography-mass spectrometry method to determine alcohol ethoxylates and alkylamine ethoxylates in soil interstitial water, ground water and surface water samples 957(2002)45

Determination of oxanilic and sulfonic acid metabolites of acetochlor in soils by liquid chromatography-electrospray ionisation mass spectrometry 957(2002)69

Dynamic sonication-assisted solvent extraction of organophosphate esters in air samples 957(2002)227

Minimization of water vapor interference in the analysis of nonmethane volatile organic compounds by solid adsorbent sampling 958(2002)219

Liquid chromatographic method development for determination of fungicide epoxiconazole enantiomers by achiral and chiral column switching technique in water and soil 959(2002)143

Analysis of phenoxyalkanoic acid herbicides and their phenolic conversion products in soil by microwave assisted solvent extraction and subsequent analysis of extracts by on-line solid-phase extraction—liquid chromatography 959(2002)153

Multicomponent analysis of volatile organic compounds in water by automated purge and trap coupled to gas chromatography-mass spectrometry 959(2002)181

Development of an analytical methodology for sarin (GB) and soman (GD) in various military-related wastes 962(2002)183

Comparison of different coatings in solid-phase microextraction for the determination of organochlorine pesticides in ground water 963(2002)95

Application of solid-phase microextraction in the monitoring of priority pesticides in the Kalamas River (N.W. Greece) 963(2002)107

Rapid trace analysis of alachlor in water and vegetable samples 963(2002)125

Universal screening method for the determination of US Environmental Protection Agency phenols at the lower ng 1⁻¹ level in water samples by on-line solid-phase extraction-high-performance liquid chromatography-atmospheric pressure chemical ionization mass spectrometry within a single run 963(2002)149

Solid-phase extraction for the simultaneous preconcentration of organic (selenocystine) and inorganic [Se(IV), Se(VI)] selenium in natural waters 963(2002)185

Rapid determination of butyltin species in water samples by multicapillary gas chromatography with atomic emission detection following headspace solid-phase microextraction 963(2002)195

Liquid-liquid-liquid microextraction of aromatic amines from water samples combined with high-performance liquid chromatography 963(2002)231

Determination of toxic compounds in paper-recycling process waters by gas chromatography-mass spectrometry and liquid chromatography-mass spectrometry 963(2002)265

Application of on-line solid-phase extraction—gas chromatography—mass spectrometry to the determination of endocrine disruptors in water samples 963(2002)287

Detection of explosives and their degradation products in soil environments 963(2002)411

Method based on solid-phase microextraction—high-performance liquid chromatography with UV and electrochemical detection to determine estrogenic compounds in water samples 964(2002)153

Determination of nitrate in seawater by capillary zone electrophoresis with chloride-induced sample self-stacking 966(2002)205

On-column complexation of metal ions using 2,6-pyridinedicarboxylic acid and separation of their anionic complexes by capillary electrophoresis with direct UV detection 966(2002)245

Determination of organochlorine pesticides in seawater using liquid-phase hollow fibre membrane microextraction and gas chromatography-mass spectrometry 968(2002)191

Column-switching system with restricted access pre-column packing for an integrated sample cleanup and liquid chromatographic—mass spectrometric analysis of alkylphenolic compounds and steroid sex hormones in sediment 971(2002)37

Concentration of chlorophenols in water with sodium dodecylsulfate–γ-alumina admicelles for high-performance liquid chromatographic analysis 972(2002)205

Gas and liquid chromatography of metal chelates of pentamethylene dithiocarbamate 973(2002)235

Recent advances in the mass spectrometric analysis related to endocrine disrupting compounds in aquatic environmental samples (Review) 974(2002)23

Mass spectrometric strategies for the analysis of polar industrial chemicals and their by-products in wastewater and surface water 974(2002)111

Determination of endocrine-disrupting compounds in environmental samples using gas and liquid chromatography with mass spectrometry 974(2002)143

Current use of pressurised liquid extraction and subcritical water extraction in environmental analysis (Review) 975(2002)3

Multiresidue analysis of fungicides in soil by sonication-assisted extraction in small columns and gas chromatography 976(2002)319

Determination of nineteen 4-alkylphenol endocrine disrupters in Geneva municipal sewage wastewater 976(2002)335

Determination of volatile organic compounds in ambient air. Comparison of methods 976(2002)369

Application of static and dynamic liquid-phase microextraction in the determination of polycyclic aromatic hydrocarbons 976(2002)377

Monitoring polychlorinated biphenyls in pine needles using supercritical fluid extraction as a pretreatment method 976(2002)393

Preconcentration and dansylation of aliphatic amines using $\rm C_{18}$ solid-phase packings. Application to the screening analysis in environmental water samples 978(2002)59

MultiSimplex optimisation of the solid-phase microextraction—gas chromatographic—mass spectrometric determination of polycyclic aromatic hydrocarbons, polychlorinated biphenyls and phthalates from water samples 978(2002)165

Separation and identification of aromatic acids in soil and the Everglades sediment samples using solid-phase microextraction followed by capillary zone electrophoresis 979(2002)417

Screening method for polycyclic aromatic hydrocarbons in soil using hollow fiber membrane solvent microextraction 982(2002)201

Determination of maleic anhydride in occupational atmospheres 982(2002)261

Capillary zone electrophoresis of soil humic acid fractions obtained by coupling size-exclusion chromatography and polyacrylamide gel electrophoresis 983(2003)263

Application of single-drop microextraction and comparison with solid-phase microextraction and solid-phase extraction for the determination of $\alpha\text{-}$ and $\beta\text{-}$ endosulfan in water samples by gas chromatography-electron-capture detection 984(2003)245

Development of a gas chromatography-mass spectrometry method for the determination of household insecticides in indoor air 985(2003)147

Lichens as polycyclic aromatic hydrocarbon bioaccumulators used in atmospheric pollution studies 985(2003)185

Trace analysis of benzene, toluene, ethylbenzene and xylene isomers in environmental samples by low-pressure gas chromatography-ion trap mass spectrometry 985(2003)191

Conductive polymers as new media for solid-phase extraction: Isolation of chlorophenols from water sample 986(2003)111

"Cold" solid-phase microextraction method for the determination of volatile halocarbons present in the atmosphere at ultra-trace levels 988(2003)167

Capillary electrophoretic separation of dicarboxylic acids in atmospheric aerosol particles 990 (2003) 133

Microscale solid-phase extraction system for explosives 991(2003)159

Closed-loop stripping analysis of synthetic musk compounds from fish tissues with measurement by gas chromatography—mass spectrometry with selected-ion monitoring 993(2003)1

Determination of organophosphate esters in air samples by dynamic sonication-assisted solvent extraction coupled on-line with large-volume injection gas chromatography utilizing a programmed-temperature vaporizer 993(2003)103

Automated fast extraction of nitrated polycyclic aromatic hydrocarbons from soil by focused microwave-assisted Soxhlet extraction prior to gas chromatography-electron-capture detection 994(2003)159

Screening and determination of pesticides in soil using continuous subcritical water extraction and gas chromatographymass spectrometry 994(2003)169

Simultaneous determination of methyl *tert.*-butyl ether and its degradation products, other gasoline oxygenates and benzene, toluene, ethylbenzene and xylenes in Catalonian groundwater by purge-and-trap-gas chromatography–mass spectrometry 995(2003)171

Measurement of toxic volatile organic compounds in indoor air of semiconductor foundries using multisorbent adsorption/ thermal desorption coupled with gas chromatography-mass spectrometry 996(2003)225

Selective determination of ammonium ions by high-speed ionexclusion chromatography on a weakly basic anion-exchange resin column 997(2003)191

High-speed simultaneous ion-exclusion/cation-exchange chromatography of anions and cations on a weakly acidic cation-exchange resin column 997(2003)219

Determination of endocrine-disrupting compounds in water samples by on-line solid-phase extraction-programmed-temperature vaporisation-gas chromatography-mass spectrometry 998(2003)41

Determination of cholesterol-lowering statin drugs in aqueous samples using liquid chromatography-electrospray ionization tandem mass spectrometry 998(2003)133

Mixed aggregate-based acid-induced cloud-point extraction and ion-trap liquid chromatography-mass spectrometry for the determination of cationic surfactants in sewage sludge 998(2003)143

Optimization of the class-selective extraction of triazines from aqueous samples using a molecularly imprinted polymer by a comprehensive approach of the retention mechanism 999(2003)23

Determination of linear alkylbenzensulfonates in aqueous matrices by ion-pair solid-phase microextraction-in-port derivatization-gas chromatography-mass spectrometry 999(2003)51

Determination of methyl *tert*.-butyl ether and *tert*.-butyl alcohol in seawater samples using purge-and-trap enrichment coupled to gas chromatography with atomic emission and mass spectrometric detection 999(2003)81

Solid-phase microextraction for herbicide determination in environmental samples (Review) 999(2003)103

Determination of musk compounds in sewage treatment plant sludge samples by solid-phase microextraction 999(2003)185

Modern developments in gas chromatography-mass spectrometry-based environmental analysis (Review) 1000(2003)125

State-of-the-art of gas chromatography-based methods for analysis of anthropogenic volatile organic compounds in estuarine waters, illustrated with the river Scheldt as an example (Review) 1000(2003)283

Liquid chromatography-(tandem) mass spectrometry of selected emerging pollutants (steroid sex hormones, drugs and alkylphenolic surfactants) in the aquatic environment (Review) 1000(2003)503

Epidermal growth factor receptor

Selective separation of active inhibitors of epidermal growth factor receptor from Caragana Jubata by molecularly imprinted solid-phase extraction 991(2003)151

Epimedium segittatum

Purification of icariin from the extract of *Epimedium segittatum* using high-speed counter-current chromatography 962(2002)239

Epoxy resin

Cycloaliphatic epoxy resin coating for capillary electrophoresis 952(2002)267

Characterisation of cement pastes by inverse gas chromatography 969(2002)261

Equilibrium-dispersive model

Measurement and modeling of the equilibrium behavior of the Tröger's base enantiomers on an amylose-based chiral stationary phase 955(2002)35

Equilibrium sorption

Using different types of capillary chromatographic columns as denudation traps: a comparison of sorption properties 977(2002)115

Equilibrium stage model

Linear two-step gradient counter-current chromatography. Analysis based on a recursive solution of an equilibrium stage model 989(2003)31

Erythrina vogelii

On-line identification of the antifungal constituents of *Erythrina vogelii* by liquid chromatography with tandem mass spectrometry, ultraviolet absorbance detection and nuclear magnetic resonance spectrometry combined with liquid chromatographic micro-fractionation 974(2002)123

Erythrocytes

Method of intracellular naphthalene-2,3-dicarboxaldehyde derivatization for analysis of amino acids in a single erythrocyte by capillary zone electrophoresis with electrochemical detection 959(2002)269

Escherichia coli

Comparison of histidine-tag capture chemistries for purification following chemical extraction 953(2002)111

On-line purification of His-tag enhanced green fluorescent protein taken directly from a bioreactor by continuous ultrasonic homogenization coupled with immobilized metal affinity expanded bed adsorption 968(2002)113

Investigating the effects of protein patterns on microorganism identification by high-performance liquid chromatography—mass spectrometry and protein database searches 976(2002)103

Optimization of immobilized metal ion affinity chromatography for single-step purification of recombinant ovine growth hormone expressed in *Escherichia coli* 998(2003)93

Eschscholtzia californica

Quantification of sugars and organic acids in hygroscopic pharmaceutical herbal dry extracts 968(2002)101

Essential oils

see also Oils

Extraction of thymol, eucalyptol, menthol, and camphor residues from honey and beeswax. Determination by gas chromatography with flame ionization detection 954(2002)207

Volatile components from Anthriscus sylvestris (L.) Hoffm. 966(2002)233

Characterisation of lavender essential oils by using gas chromatography-mass spectrometry with correlation of linear retention indices and comparison with comprehensive two-dimensional gas chromatography 970(2002)225

Extractions with superheated water (Review) 975(2002)31

Thermodynamic and kinetic models for the extraction of essential oil from savory and polycyclic aromatic hydrocarbons from soil with hot (subcritical) water and supercritical ${\rm CO_2}$ 975(2002)175

Aroma compound analysis of *Piper nigrum* and *Piper guineense* essential oils from Cameroon using solid-phase microextraction—gas chromatography, solid-phase microextraction—gas chromatography—mass spectrometry and olfactometry 976(2002)265

Analysis by gas chromatography–mass spectrometry of the essential oils from the aerial parts of *Rutheopsis herbanica* (Bolle) Hans. & Kunk., gathered in Fuerteventura (Canary Islands) 984(2003)159

Etchants

Determination of chloride and sulfate in semiconductor-grade etchants comprised of acetic acid, nitric acid and phosphoric acid 997(2003)269

Etched capillary

Evaluation of extended light path capillary and etched capillary for use in open tubular capillary electrochromatography 961(2002)285

Ethyl thio-incorporation

Artifact formation due to ethyl thio-incorporation into silylated steroid structures as determined in doping analysis 954(2002)199

Eucommia ulmoides

Rapid and simultaneous analysis of some bioactive components in *Eucommia ulmoides* by capillary electrophoresis 989(2003)303

Analysis of long-chain polyprenols using supercritical fluid chromatography and matrix-assisted laser desorption ionization time-of-flight mass spectrometry 995(2003)203

Evaporation methods

On-line coupled liquid chromatography—gas chromatography (Review) 1000(2003)357

Evaporation rate

Role of the retaining precolumn in large-volume on-column injections of volatiles to gas chromatography 975(2002)95

Evaporative light scattering detection

A comparative study of commercial liquid chromatographic detectors for the analysis of underivatized amino acids 961(2002)9

Determining the vinyl alcohol distribution in poly(vinyl butyral) using normal-phase gradient polymer elution chromatography 971(2002)151

Expanded bed chromatography

Comparison of histidine-tag capture chemistries for purification following chemical extraction 953(2002)111

Fluidisation and dispersion behaviour of small high density pellicular expanded bed adsorbents 964(2002)77

On-line purification of His-tag enhanced green fluorescent protein taken directly from a bioreactor by continuous ultrasonic homogenization coupled with immobilized metal affinity expanded bed adsorption 968(2002)113

Hydrophobic interaction ligand selection and scale-up of an expanded bed separation of an intracellular enzyme from *Saccharomyces cerevisiae* 968(2002)121

DNA-induced inter-particle cross-linking during expanded bed adsorption chromatography. Impact on future support design 971(2002)73

Particle size and density distributions of two dense matrices in an expanded bed system 977(2002)173

Experimental design

Optimization of headspace solid-phase microextraction by means of an experimental design for the determination of methyl *tert.*-butyl ether in water by gas chromatography–flame ionization detection 963(2002)259

Methylmercury determination in biological samples by derivatization, solid-phase microextraction and gas chromatography with microwave-induced plasma atomic emission spectrometry 963(2002)313

Use of experimental design for the purge-and-trap-gas chromatography—mass spectrometry determination of methyl *tert.*-butyl ether, *tert.*-butyl alcohol and BTEX in groundwater at trace level 975(2002)113

Optimisation by experimental design of a capillary electrophoretic method for the separation of several inhibitors of angiotensin-converting enzyme using alkylsulphonates 978(2002)231

Optimization and validation of a capillary zone electrophoretic method for the analysis of several angiotensin-II-receptor antagonists 979(2002)323

Optimization and validation of a micellar electrokinetic chromatographic method for the analysis of several angiotensin-II-receptor antagonists 984(2003)135

Multivariate optimisation of a cyclodextrin-assisted-capillary zone electrophoretic method for the separation of torasemide and its metabolites 990(2003)271

Determination of chloride and sulfate in semiconductor-grade etchants comprised of acetic acid, nitric acid and phosphoric acid 997(2003)269

Physico-chemical approach to study organotin sorption desorption during solid-phase microextraction 999(2003)61

Rapid determination of organotin compounds by headspace solid-phase microextraction 999(2003)123

Use of solid-phase microextraction coupled with gas chromatography for the determination of residual solvents in pharmaceutical products 999(2003)195

Experimental evidence rationalization

Extended thermodynamic approach to ion interaction chromatography: a thorough comparison with the electrostatic approach, and further quantitative validation 958(2002)51

Expert systems

Intelligent automation of high-performance liquid chromatography method development by means of a real-time knowledge-based approach 972(2002)27

Extended light path capillary

Evaluation of extended light path capillary and etched capillary for use in open tubular capillary electrochromatography 961(2002)285

Extended liquid-solid BET model

Comparison of the adsorption equilibrium of a few low-molecular mass compounds on a monolithic and a packed column in reversed-phase liquid chromatograph 978(2002)81

External standards

Quantitative accuracy in the gas chromatographic analysis of solvent mixtures 985(2003)21

Extraction methods

see also Clean-up methods, Preconcentration, Pressurized liquid extraction, Sample handling, Sample preparation, Solid-phase extraction, Solid-phase microextraction, Supercritical fluid extraction and Special Issue Index

Study of the feasibility of focused microwave-assisted Soxhlet extraction of *N*-methylcarbamates from soil 953(2002)133

Evaluation of an extraction method in the determination of the 2,4,6-trichloroanisole content of tainted cork 953(2002)207

Extraction of thymol, eucalyptol, menthol, and camphor residues from honey and beeswax. Determination by gas chromatography with flame ionization detection 954(2002)207

Harmful azo colorants in leather. Determination based on their cleavage and extraction of corresponding carcinogenic aromatic amines using modern extraction techniques 955(2002)215

Liquid chromatography-mass spectrometry method to determine alcohol ethoxylates and alkylamine ethoxylates in soil interstitial water, ground water and surface water samples 957(2002)45

Some aspects of the analysis of environmental pollutants in sediments using pressurized liquid extraction and gas chromatography-mass spectrometry 957(2002)59

Dynamic sonication-assisted solvent extraction of organophosphate esters in air samples 957(2002)227

Online coupling of pressurized liquid extraction, solid-phase extraction and high-performance liquid chromatography for automated analysis of proanthocyanidins in malt 958(2002)9

Automated headspace solid-phase dynamic extraction for the determination of amphetamines and synthetic designer drugs in hair samples 958(2002)231

Coupling continuous subcritical water extraction, filtration, preconcentration, chromatographic separation and UV detection for the determination of chlorophenoxy acid herbicides in soils 959(2002)25

Analysis of phenoxyalkanoic acid herbicides and their phenolic conversion products in soil by microwave assisted solvent extraction and subsequent analysis of extracts by on-line solid-phase extraction-liquid chromatography 959(2002)153

Acid-induced cloud point extraction and preconcentration of polycyclic aromatic hydrocarbons from environmental solid samples 962(2002)1

Recovery, enrichment and selectivity in liquid-phase microextraction. Comparison with conventional liquid-liquid extraction 963(2002)3

Membrane-assisted solvent extraction of triazines and other semi-volatile contaminants directly coupled to large-volume injection—gas chromatography—mass spectrometric detection 963(2002)27

Monitoring volatile compounds during dry-cured ham ripening by solid-phase microextraction coupled to a new direct-extraction device 963(2002)83

Comparison of solid-phase extraction and solid-phase microextraction for carbofuran in water analyzed by high-performance liquid chromatography—photodiode-array detection 963(2002)117

Application of stir bar sorptive extraction to the determination of polycyclic aromatic hydrocarbons in aqueous samples 963(2002)225

Liquid-liquid-liquid microextraction of aromatic amines from water samples combined with high-performance liquid chromatography 963(2002)231

Analysis of aromatic amines in water samples by liquid—liquid—liquid microextraction with hollow fibers and high-performance liquid chromatography 963(2002)239

Liquid-phase microextraction combined with capillary electrophoresis, a promising tool for the determination of chiral drugs in biological matrices 963(2002)303

Analysis of phenoxy herbicides in bovine milk by means of liquid–liquid–liquid microextraction with a hollow-fiber membrane 963(2002)335

Determination of methylmercury in human hair by ethylation followed by headspace solid-phase microextraction—gas chromatography—cold-vapour atomic fluorescence spectrometry 963(2002)345

Ultrasound extraction and thin layer chromatography-flame ionization detection analysis of the lipid fraction in marine mucilage samples 963(2002)363

Determination of adipate plasticizers in poly(vinyl chloride) by microwave-assisted extraction 963(2002)401

Optimization of the extraction of azo colorants used in toy products 963(2002)427

Continuous permeation of analytes through a thin poly(dimethylsiloxane) membrane followed by sorbent trapping for their gas chromatographic monitoring 964(2002)1

Selective enrichment of sulfides, thiols and methylthiophosphates from water samples on metal-loaded cation-exchange materials for gas chromatographic analysis 968(2002)171

Determination of organochlorine pesticides in seawater using liquid-phase hollow fibre membrane microextraction and gas chromatography-mass spectrometry 968(2002)191

Application of matrix solid-phase dispersion to the determination of a new generation of fungicides in fruits and vegetables 968(2002)201

Application of pressurized liquid extraction technology to pharmaceutical solid dosage form analysis 968(2002)257

Current use of pressurised liquid extraction and subcritical water extraction in environmental analysis (Review) 975(2002)3

Extractions with superheated water (Review) 975(2002)31

Polymer-coated synthetic fibers designed for miniaturized sample preparation process 975(2002)105

Comparison of various extraction techniques for the determination of polycyclic aromatic hydrocarbons in worms 975(2002)165

Optimization of solid-phase extraction and solid-phase microextraction for the determination of α - and β -endosulfan in water by gas chromatography–electron-capture detection 976(2002)293

Multiresidue analysis of fungicides in soil by sonication-assisted extraction in small columns and gas chromatography 976(2002)319

Determination of dichlorvos by on-line microwave-assisted extraction coupled to headspace solid-phase microextraction and gas chromatography-electron-capture detection 976(2002)349

Analysis of polar pesticides in water and wine samples by automated in-tube solid-phase microextraction coupled with high-performance liquid chromatography-mass spectrometry 976(2002)357

Application of static and dynamic liquid-phase microextraction in the determination of polycyclic aromatic hydrocarbons 976(2002)377

Analytical characteristics of the determination of benzene, toluene, ethylbenzene and xylenes in water by headspace solvent microextraction 977(2002)143

Aqueous two-phase extraction as an effective tool for isolation of geniposide from gardenia fruit 977(2002)239

Static extraction with modified pressurized liquid and on-line fluorescence monitoring. Independent matrix approach for the removal of polycyclic aromatic hydrocarbons from environmental solid samples 978(2002)49

Combination of liquid-phase microextraction and on-column stacking for trace analysis of amino alcohols by capillary electrophoresis 979(2002)163

Screening method for polycyclic aromatic hydrocarbons in soil using hollow fiber membrane solvent microextraction 982(2002)201

Simple method for the determination of trace levels of pesticides in honeybees using matrix solid-phase dispersion and gas chromatography 982(2002)267

Pressurized liquid extraction of active ingredients (ginsenosides) from medicinal plants using non-ionic surfactant solutions 983(2003)153

Headspace microdrop analysis—an alternative test method for gasoline diluent and benzene, toluene, ethylbenzene and xylenes in used engine oils 983(2003)205

Application of single-drop microextraction and comparison with solid-phase microextraction and solid-phase extraction for the determination of $\alpha\text{-}$ and $\beta\text{-}$ endosulfan in water samples by gas chromatography-electron-capture detection 984(2003)245

New high-performance cryofocalizer injector for in-tube solidphase microextraction and headspace capillary gas chromatographic applications 985(2003)67

In-tube solid-phase microextraction sampler for long-term storage 985(2003)93

Semi-automated hollow-fibre membrane extraction, a novel enrichment technique for the determination of biologically active compounds in water samples 985(2003)99

Automated hollow fiber-protected dynamic liquid-phase microextraction of pesticides for gas chromatography-mass spectrometric analysis 985(2003)107

Determination of triazines in soil by microwave-assisted extraction followed by solid-phase microextraction and gas chromatography-mass spectrometry 985(2003)167

Determination of stale-flavor carbonyl compounds in beer by stir bar sorptive extraction with in-situ derivatization and thermal desorption—gas chromatography—mass spectrometry 986(2003)101

Simultaneous extraction of di(2-ethylhexyl) phthalate and nonionic surfactants from house dust. Concentrations in floor dust from 15 Danish schools 986(2003)179

Tobacco protein separation by aqueous two-phase extraction 989(2003)119

Rotation planar extraction and rotation planar chromatography of oak (*Quercus robur* L.) bark 991(2003)267

Closed-loop stripping analysis of synthetic musk compounds from fish tissues with measurement by gas chromatography—mass spectrometry with selected-ion monitoring 993(2003)1

Trace analysis of trichlorobenzenes in fish by microwaveassisted extraction and gas chromatography-electron-capture detection 993(2003)71

Determination of organophosphate esters in air samples by dynamic sonication-assisted solvent extraction coupled on-line with large-volume injection gas chromatography utilizing a programmed-temperature vaporizer 993(2003)103

Rapid analytical method for the determination of pesticide residues in sunflower seeds based on focused microwave-assisted Soxhlet extraction prior to gas chromatography-tandem mass spectrometry 993(2003)121

Automated fast extraction of nitrated polycyclic aromatic hydrocarbons from soil by focused microwave-assisted Soxhlet extraction prior to gas chromatography-electron-capture detection 994(2003)159

Screening and determination of pesticides in soil using continuous subcritical water extraction and gas chromatography—mass spectrometry 994(2003)169

Optimization, validation and comparison of various extraction techniques for the trace determination of polycyclic aromatic hydrocarbons in sewage sludges by liquid chromatography coupled to diode-array and fluorescence detection 995(2003)87

Rapid determination of ions by combined solid-phase extraction-diffuse reflectance spectroscopy 997(2003)41

Extraction of polychlorinated biphenyls from soils by automated focused microwave-assisted Soxhlet extraction 998(2003)21

Liquid-phase microextraction of hydrophilic drugs by carrier-mediated transport 998(2003)61

Analysis of 35 priority semivolatile compounds in water by stir bar sorptive extraction—thermal desorption—gas chromatography—mass spectrometry. I. Method optimisation 999(2003)91

Hollow-fibre liquid-phase microextraction of phthalate esters from water 999(2003)145

Solvent extraction of organic molecules of exobiological interest for in situ analysis of the Martian soil 999(2003)165

Rapid determination of polycyclic aromatic hydrocarbons in sewage sludges using microwave-assisted solvent extraction. Comparison with other extraction methods 999(2003)175



Factorial analysis

Tobacco protein separation by aqueous two-phase extraction 989(2003)119

Factorial design

Optimisation of headspace solid-phase microextraction for analysis of aromatic compounds in vinegar 953(2002)7

Optimization of a derivatization-solid-phase microextraction method for the analysis of thirty phenolic pollutants in water samples 963(2002)137

Optimisation of a solid-phase microextraction method for synthetic musk compounds in water 963(2002)277

Optimization of the extraction of azo colorants used in toy products 963(2002)427

Determination of *N*-nitrosamines in latex by sequential supercritical fluid extraction and derivatization 976(2002)301

Determination of aromatic amines formed from azo colorants in toy products 976(2002)309

Multivariate optimisation of a cyclodextrin-assisted-capillary zone electrophoretic method for the separation of torasemide and its metabolites 990(2003)271

Rapid analytical method for the determination of pesticide residues in sunflower seeds based on focused microwave-assisted Soxhlet extraction prior to gas chromatography-tandem mass spectrometry 993(2003)121

Rapid determination of polycyclic aromatic hydrocarbons in sewage sludges using microwave-assisted solvent extraction. Comparison with other extraction methods 999(2003)175

Fats

Mass spectrometric methods prove the use of beeswax and ruminant fat in late Roman cooking pots 968(2002)151

Comprehensive two-dimensional liquid chromatography×gas chromatography: evaluation of the applicability for the analysis of edible oils and fats (Review) 1000(2003)385

Fertilisers

Determination of vanadium as 4-(2-pyridylazo)resorcinol—hydrogen peroxide ternary complexes by ion-interaction reversed-phase liquid chromatography 956(2002)221

Determination of free L- and D-alanine in hydrolysed protein fertilisers by capillary electrophoresis 985(2003)463

Fiber optics

Fiber optic multi-channel protein detector for use in preparative continuous annular chromatography 967(2002)183

Fiber-water distribution constants

Solid-phase microextraction fibre—water distribution constants of more hydrophobic organic compounds and their correlations with octanol—water partition coefficients 999(2003)35

Fibrinolysis

In vitro comparison of complementary interactions between synthetic linear/branched oligo/poly-L-lysines and tissue plasminogen activator by means of high-performance monolithic-disk affinity chromatography 992(2003)109

Field-amplified sample injection/stacking

see Field-enhanced sample stacking

Field analysis

Detection of VX contamination in soil through solid-phase microextraction sampling and gas chromatography/mass spectrometry of the VX degradation product bis(diisopropylaminoethyl)disulfide 992(2003)1

Field-enhanced sample stacking

see also Sample stacking

Combination of liquid-phase microextraction and on-column stacking for trace analysis of amino alcohols by capillary electrophoresis 979(2002)163

Electrophoretic analysis of amines using reversed-phase, reversed-polarity, head-column field-amplified sample stacking and laser-induced fluorescence detection 979(2002)171

Field extraction methods

In-tube solid-phase microextraction sampler for long-term storage 985(2003)93

On-site calibration method based on stepwise solid-phase microextraction 999(2003)43

Field-flow fractionation

Different elution modes and field programming in gravitational field-flow fractionation. IV. Field programming achieved with channels of non-constant cross-sections 955(2002)95

Field and flow programming in frit-inlet asymmetrical flow field-flow fractionation 955(2002)263

On void time determination in thermal field-flow fractionation 960(2002)165

Improved performance of gravitational field-flow fractionation for screening wine-making yeast varieties 966(2002)135

Flow field-flow fractionation and characterization of ionic and neutral polysaccharides of vegetable and microbial origin 967(2002)219

Retention behavior of metal particle dispersions in aqueous and nonaqueous carriers in thermal field-flow fractionation 983(2003)163

Practical implications of ionic strength effects on particle retention in thermal field-flow fractionation 984(2003)67

Hyperlayer hollow-fiber flow field-flow fractionation of cells 985(2003)519

Lowering the molecular mass limit of thermal field-flow fractionation for polymer separations 988(2003)285

Field programming

Different elution modes and field programming in gravitational field-flow fractionation. IV. Field programming achieved with channels of non-constant cross-sections 955(2002)95

Fish

High-resolution separation of polychlorinated biphenyls by comprehensive two-dimensional gas chromatography 958(2002)203

Development of a high-performance liquid chromatography carbon column based method for the fractionation of dioxin-like polychlorinated biphenyls 962(2002)79

Determination of quinolones and fluoroquinolones in fish tissue and seafood by high-performance liquid chromatography with electrospray ionisation tandem mass spectrometric detection 982(2002)97

Closed-loop stripping analysis of synthetic musk compounds from fish tissues with measurement by gas chromatography—mass spectrometry with selected-ion monitoring 993(2003)1

Trace analysis of trichlorobenzenes in fish by microwaveassisted extraction and gas chromatography-electron-capture detection 993(2003)71 Determination of the antibiotic chloramphenicol in meat and seafood products by liquid chromatography-electrospray ionization tandem mass spectrometry 994(2003)75

Identification and confirmation of traces of chlorinated fatty acids in fish downstream of bleached kraft pulp mills by gas chromatography with halogen-specific detection 994(2003)137

Flame ionization detection

Flame photometric detector for thin-layer chromatography 973(2002)151

Determination of ethanol in alcoholic beverages by highperformance liquid chromatography—flame ionization detection using pure water as mobile phase 976(2002)387

Flame photometric detection

Flame photometric detector for thin-layer chromatography 973(2002)151

Flame retardants

Chromatographic enrichment and enantiomer separation of axially chiral polybrominated biphenyls in a technical mixture 973(2002)123

Developments in the use of chromatographic techniques in marine laboratories for the determination of halogenated contaminants and polycyclic aromatic hydrocarbons 1000(2003)223

Flavours

Determination of minor and trace volatile compounds in wine by solid-phase extraction and gas chromatography with mass spectrometric detection 966(2002)167

Flory-Huggins parameter

Polymer–solvent interaction parameters in polymer solutions at high polymer concentrations 969(2002)245

Characterization of the interactions in polymer-filler systems by inverse gas chromatography 969(2002)255

Flowers

Use of solid-phase micro-extraction as a sampling technique in the determination of volatiles emitted by flowers, isolated flower parts and pollen 998(2003)229

Flow field-flow fractionation

Flow field-flow fractionation and characterization of ionic and neutral polysaccharides of vegetable and microbial origin 967(2002)219

Flow fractionation

Capillary magnetophoresis of human blood cells and their magnetophoretic trapping in a flow system 961(2002)3

Flow profiles

Study of flow profile distortions and efficiency in counter pressure moderated partial filling micellar electrokinetic chromatography in relation to the relative buffer zone lengths 960(2002)209

Flow rate

Influence of chromatographic conditions on separation in comprehensive gas chromatography 962(2002)135

Purification of quinoline yellow components using high-speed counter-current chromatography by stepwise increasing the flow-rate of the mobile phase 989(2003)249

Prediction of the plate height of capillary columns operated at any inlet pressure of the carrier gas by using few retention data measured under isobaric conditions 994(2003)103

Flow selection

Effect of salt gradients on the separation of dilute mixtures of proteins by ion-exchange in simulated moving beds 952(2002)85

Flow simulations

Computational fluid dynamics simulations yielding guidelines for the ideal internal structure of monolithic liquid chromatography columns 991(2003)169

Flow velocity

Experimental Van Deemter plots of shear-driven liquid chromatographic separations in disposable microchannels 987(2003)39

Flow-velocity gradients

Different elution modes and field programming in gravitational field-flow fractionation. IV. Field programming achieved with channels of non-constant cross-sections 955(2002)95

Fluidized bed chromatography

Fluidisation and dispersion behaviour of small high density pellicular expanded bed adsorbents 964(2002)77

DNA-induced inter-particle cross-linking during expanded bed adsorption chromatography. Impact on future support design 971(2002)73

Fluorescence detection

High-performance liquid chromatographic separation of polycyclic aromatic hydrocarbons using pyridinium chloride as a selective fluorescence quencher to aid detection 966(2002)53

Fly ash

Optimization of a microwave-assisted extraction method for the analysis of polychlorinated biphenyls in ash samples 985(2003)137

Focused microwave-assisted Soxhlet extraction

Study of the feasibility of focused microwave-assisted Soxhlet extraction of *N*-methylcarbamates from soil 953(2002)133

Rapid analytical method for the determination of pesticide residues in sunflower seeds based on focused microwave-assisted Soxhlet extraction prior to gas chromatography-tandem mass spectrometry 993(2003)121

Automated fast extraction of nitrated polycyclic aromatic hydrocarbons from soil by focused microwave-assisted Soxhlet extraction prior to gas chromatography-electron-capture detection 994(2003)159

Extraction of polychlorinated biphenyls from soils by automated focused microwave-assisted Soxhlet extraction 998(2003)21

Food analysis

Headspace solid-phase microextraction analysis of 3-alkyl-2-methoxypyrazines in wines 953(2002)1

Optimisation of headspace solid-phase microextraction for analysis of aromatic compounds in vinegar 953(2002)7

Determination of acaricides in honey by high-performance liquid chromatography with photodiode array detection 954(2002)173

Determination of pesticide residues in coconut water by liquid—liquid extraction and gas chromatography with electron-capture plus thermionic specific detection and solid-phase extraction and high-performance liquid chromatography with ultraviolet detection 957(2002)201

Online coupling of pressurized liquid extraction, solid-phase extraction and high-performance liquid chromatography for automated analysis of proanthocyanidins in malt 958(2002)9

New chromatographic method for separation and determination of denatured α_{s1}^- , α_{s2}^- , β^- and κ -caseins by hydrophobic interaction chromatography 958(2002)157

High-resolution separation of polychlorinated biphenyls by comprehensive two-dimensional gas chromatography 958(2002)203

Residue analysis of macrolides in poultry muscle by liquid chromatography-electrospray mass spectrometry 959(2002)131

Application of gas chromatography-tandem mass spectrometry to the analysis of pesticides in fruits and vegetables 959(2002)203

Determining eight colorants in milk beverages by capillary electrophoresis 959(2002)317

Optimization of solid-phase clean-up prior to liquid chromatographic analysis of ochratoxin A in roasted coffee 959(2002)327

Development of a high-performance liquid chromatography carbon column based method for the fractionation of dioxin-like polychlorinated biphenyls 962(2002)79

Monitoring volatile compounds during dry-cured ham ripening by solid-phase microextraction coupled to a new direct-extraction device 963(2002)83

Aroma analysis of fresh and preserved onions and leek by dual solid-phase microextraction-liquid extraction and gas chromatography-mass spectrometry 963(2002)89

Rapid trace analysis of alachlor in water and vegetable samples 963(2002)125

Determination of esters in dry and sweet white wines by headspace solid-phase microextraction and gas chromatography 963(2002)213

Analysis of phenoxy herbicides in bovine milk by means of liquid-liquid-liquid microextraction with a hollow-fiber membrane 963(2002)335

Determination of bisphenol-type contaminants from food packaging materials in aqueous foods by solid-phase microextraction—high-performance liquid chromatography 963(2002)375

Determination of *Penicillium* mycotoxins in foods and feeds using liquid chromatography-mass spectrometry 964(2002)189

Comprehensive two-dimensional gas chromatography with timeof-flight mass spectrometric detection applied to the determination of pesticides in food extracts 965(2002)207

Determination of chlormequat and mepiquat in pear, tomato, and wheat flour using on-line solid-phase extraction (Prospekt) coupled with liquid chromatography-electrospray ionization tandem mass spectrometry 966(2002)15

Matrix-effects of vegetable commodities in electron-capture detection applied to pesticide multiresidue analysis 966(2002)155

Determination of minor and trace volatile compounds in wine by solid-phase extraction and gas chromatography with mass spectrometric detection 966(2002)167

Single column approach for the liquid chromatographic separation of polar and non-polar glucosinolates from broccoli sprouts and seeds 966(2002)227

Separation and quantification of the major casein fractions by reverse-phase high-performance liquid chromatography and urea-polyacrylamide gel electrophoresis. Detection of milk adulterations 967(2002)209

Solid-phase microextraction and gas chromatography-mass spectrometry for the rapid screening of triazole residues in wine and strawberries 967(2002)255

Headspace solid-phase microextraction analysis of aroma compounds in vinegar. Validation study 967(2002)261

Simultaneous quantification of A-trichothecene mycotoxins in grains using liquid chromatography-atmospheric pressure chemical ionisation mass spectrometry 968(2002)129

Application of matrix solid-phase dispersion to the determination of a new generation of fungicides in fruits and vegetables 968(2002)201

Optimizing separation conditions for riboflavin, flavin mononucleotide and flavin adenine dinucleotide in capillary zone electrophoresis with laser-induced fluorescence detection 968(2002)229

Supercritical fluid extraction for the detection of 2-dodecylcyclobutanone in low dose irradiated plant foods 968(2002)251

Recent advances in the application of mass spectrometry in food-related analysis (Review) 970(2002)3

Comparison of microextraction procedures to determine pesticides in oranges by liquid chromatography-mass spectrometry 970(2002)201

On-line liquid-chromatography-nuclear magnetic resonance spectroscopy-mass spectrometry coupling for the separation and characterization of secoisolariciresinol diglucoside isomers in flaxseed 972(2002)195

Determination of propamocarb in vegetables using polymerbased high-performance liquid chromatography coupled with electrospray mass spectrometry 972(2002)231

Liquid chromatographic-mass spectrometric methods for analyzing antibiotic and antibacterial agents in animal food products (Review) 974(2002)53

Recent applications of sample preparation techniques in food analysis (Review) 975(2002)47

Sample handling strategies for the determination of biophenols in food and plants (Review) 975(2002)71

Determination of pyrimethanil and kresoxim-methyl in green groceries by headspace solid-phase microextraction and gas chromatography-mass spectrometry 975(2002)355

Development and validation of a liquid chromatographic– electrospray tandem mass spectrometric multiresidue method for anthelmintics in milk 976(2002)181

Aroma compound analysis of *Piper nigrum* and *Piper guineense* essential oils from Cameroon using solid-phase microextraction—gas chromatography, solid-phase microextraction—gas chromatography—mass spectrometry and olfactometry 976(2002)265

High-performance liquid chromatographic determination of α -tocopherol in macroalgae 976(2002)277

Gas chromatographic-mass spectrometric quantification of 4-(5-)-methylimidazole in roasted coffee after ion-pair extraction 976(2002)285

Liquid chromatography with electrospray ion-trap mass spectrometry for the determination of yessotoxins in shellfish 976(2002)329

Automated sample preparation by pressurized liquid extraction—solid-phase extraction for the liquid chromatographic—mass spectrometric investigation of polyphenols in the brewing process 976(2002)345

Determination of dichlorvos by on-line microwave-assisted extraction coupled to headspace solid-phase microextraction and gas chromatography-electron-capture detection 976(2002)349

Analysis of polar pesticides in water and wine samples by automated in-tube solid-phase microextraction coupled with high-performance liquid chromatography-mass spectrometry 976(2002)357

Determination of ethanol in alcoholic beverages by highperformance liquid chromatography—flame ionization detection using pure water as mobile phase 976(2002)387

Pervaporation–gas chromatography coupling for slurry samples. Determination of acetaldehyde and acetone in food 976(2002)399

Application of liquid chromatography-electrospray ionization tandem mass spectrometry to the detection of 10 sulfonamides in honey 977(2002)77

Separation and determination of organic acids and phenolic compounds in fruit juices and drinks by high-performance liquid chromatography 977(2002)89

Blue Chitin columns for the extraction of heterocyclic amines from cooked meat 977(2002)97

Simultaneous determination of carbohydrates and simmondsins in jojoba seed meal (Simmondsia chinensis) by gas chromatography 977(2002)257

Determination of quinolones and fluoroquinolones in fish tissue and seafood by high-performance liquid chromatography with electrospray ionisation tandem mass spectrometric detection 982(2002)97

Multi-residue method for rapid screening and confirmation of pesticides in crude extracts of fruits and vegetables using isocratic liquid chromatography with electrospray tandem mass spectrometry 982(2002)225

Direct determination of free amino acids and sugars in green tea by anion-exchange chromatography with integrated pulsed amperometric detection 982(2002)237

Analysis of virgin olive oil volatile compounds by headspace solid-phase microextraction coupled to gas chromatography with mass spectrometric and flame ionization detection 983(2003)19

Simultaneous determination of long-chain aliphatic aldehydes and waxes in olive oils 983(2003)283

Evaluation of headspace solid-phase microextraction for the analysis of volatile carbonyl compounds in spirits and alcoholic beverages 984(2003)89

Comparison of solid-phase microextraction and purge-and-trap methods for the analysis of the volatile fraction of butter 985(2003)117

Solid-phase extraction-thin-layer chromatography-gas chromatography method for the detection of hazelnut oil in olive oils by determination of esterified sterols 985(2003)211

Flavour analysis of Greek white wine by solid-phase microextraction-capillary gas chromatography-mass spectrometry 985(2003)233

Headspace gas chromatography-mass spectrometry of volatile compounds in murici (*Byrsonima crassifolia* L. Rich) 985(2003)297

Determination of *E*-2-nonenal by high-performance liquid chromatography with UV detection. Assay for the evaluation of beer ageing 985(2003)395

Determination of nitrosamines in preserved sausages by solidphase extraction-micellar electrokinetic chromatography 985(2003)503

Determination of stale-flavor carbonyl compounds in beer by stir bar sorptive extraction with in-situ derivatization and thermal desorption—gas chromatography—mass spectrometry 986(2003)101

Simultaneous determination of water-soluble vitamins in a vitamin-enriched drink by an in-capillary enzyme reaction method 986(2003)153

Determination of daidzein and genistein in soybean foods by automated on-line in-tube solid-phase microextraction coupled to high-performance liquid chromatography 986(2003)169

Determination of enrofloxacin and its metabolite ciprofloxacin in goat milk by high-performance liquid chromatography with diode-array detection. Optimization and validation 987(2003)221

Validation of a high-performance liquid chromatography method for the determination of oxytetracycline, tetracycline, chlortetracycline and doxycycline in bovine milk and muscle 987(2003)227

New aspects of the simultaneous analysis of amino acids and amines as their *o*-phthaldialdehyde derivatives by high-performance liquid chromatography. Analysis of wine, beer and vinegar 987(2003)311

Determination of T-2 toxin in cereal grains by liquid chromatography with fluorescence detection after immunoaffinity column clean-up and derivatization with 1-anthroylnitrile 989(2003)257

Development and validation of a capillary zone electrophoresis method for the quantitative determination of anthocyanins in wine 990(2003)247

High-performance ion-pair chromatography method for simultaneous analysis of alliin, deoxyalliin, allicin and dipeptide precursors in garlic products using multiple mass spectrometry and UV detection 991(2003)69

Advances in methodology for the validation of methods according to the International Organization for Standardization. Application to the determination of benzoic and sorbic acids in soft drinks by high-performance liquid chromatography 992(2003)11

Multiresidue method for fourteen fungicides in white grapes by liquid–liquid and solid-phase extraction followed by liquid chromatography–diode array detection 992(2003)121

Determination of abamectin and azadirachtin residues in orange samples by liquid chromatography–electrospray tandem mass spectrometry 992(2003)133

Liquid chromatography-mass spectrometry of spiroketal stereoisomers of pectenotoxins and the analysis of novel pectenotoxin isomers in the toxic dinoflagellate *Dinophysis acuta* from New Zealand 992(2003)141

Determination of zearalenone from wheat and corn by pressurized liquid extraction and liquid chromatography–electrospray mass spectrometry 993(2003)39

Trace analysis of trichlorobenzenes in fish by microwaveassisted extraction and gas chromatography-electron-capture detection 993(2003)71

Intercalibration of chromatographic methods for auxino phytodrugs in *Solanaceae* 993(2003)111

Headspace solid-phase microextraction in combination with gas chromatography—mass spectrometry for the rapid screening of organophosphorus insecticide residues in strawberries and cherries 993(2003)197

Separation and determination of denatured α_{s1} -, α_{s2} -, β - and κ -caseins by hydrophobic interaction chromatography in cows', ewes' and goats' milk, milk mixtures and cheeses 994(2003)59

Determination of the antibiotic chloramphenicol in meat and seafood products by liquid chromatography-electrospray ionization tandem mass spectrometry 994(2003)75

Identification and confirmation of traces of chlorinated fatty acids in fish downstream of bleached kraft pulp mills by gas chromatography with halogen-specific detection 994(2003)137

Analysis of food colorants by capillary electrophoresis with large-volume sample stacking 995(2003)29

Analysis of proanthocyanidins by high-performance gel permeation chromatography 995(2003)99

Coupling solid-phase microextraction and high-performance liquid chromatography for direct and sensitive determination of halogenated fungicides in wine 995(2003)135

Determination of biogenic amines as dansyl derivatives in alcoholic beverages by high-performance liquid chromatography with fluorimetric detection and characterization of the dansylated amines by liquid chromatography—atmospheric pressure chemical ionization mass spectrometry 996(2003)103

Rapid multi-residue method for the determination of azinphos methyl, bromopropylate, chlorpyrifos, dimethoate, parathion methyl and phosalone in apricots and peaches by using negative chemical ionization ion trap technology 996(2003)181

Thermodynamic study of two different chewing-gum bases by inverse gas chromatography 996(2003)189

Application of a single electrode, modified with polydiphenylamine and dodecyl sulfate, for the simultaneous amperometric determination of electro-inactive anions and cations in ion chromatography 997(2003)65

Continuous ultrasound-assisted extraction coupled to on line filtration–solid-phase extraction–column liquid chromatography–post column derivatisation–fluorescence detection for the determination of *N*-methylcarbamates in soil and food 998(2003)51

Liquid chromatography-mass spectrometry and liquid chromatography-tandem mass spectrometry of the *Alternaria* mycotoxins alternariol and alternariol monomethyl ether in fruit juices and beverages 998(2003)119

Identification of aroma active compounds in orange essence oil using gas chromatography-olfactometry and gas chromatography-mass spectrometry 998(2003)201

Multi-residue screening of pesticides in vegetables, fruits and baby food by stir bar sorptive extraction-thermal desorptioncapillary gas chromatography-mass spectrometry (Review) 1000(2003)299

Analysis of food proteins and peptides by chromatography and mass spectrometry (Review) 1000(2003)609

Forensic analysis

Automated headspace solid-phase dynamic extraction for the determination of amphetamines and synthetic designer drugs in hair samples 958(2002)231

Detection of multiple anions by thin-layer chromatography 973(2002)159

Analysis of illicit amphetamine seizures by capillary zone electrophoresis 979(2002)345

Use of dynamically coated capillaries with added cyclodextrins for the analysis of opium using capillary electrophoresis 984(2003)109

Rapid identification and quantitation of compounds with forensic interest using fast liquid chromatography—ion trap mass spectrometry and library searching 994(2003)93

Formaldehyde-phenol resins

Pyrolysis-gas chromatography-mass spectrometry of cured phenolic resins 993(2003)131

Fourier transform infrared spectroscopy

Analysis of C_{60} and C_{70} fullerenes using high-performance liquid chromatography–Fourier transform infrared spectroscopy 960(2002)135

Chemometric detection of thermally degraded samples in the analysis of drugs of abuse with gas chromatography–Fourier-transform infrared spectroscopy 962(2002)161

Hyphenation and hypernation. The practice and prospects of multiple hyphenation (Review) 1000(2003)325

Fractal calibration

Fractal calibration in size-exclusion chromatography. I. An introduction 996(2003)33

Fraction collection

Micromachined capillary cross-connector for high-precision fraction collection 979(2002)105

Fraction separator

Free-flow electrophoresis in a microfabricated chamber with a micromodule fraction separator. Continuous separation of proteins 990(2003)169

Fragrances

Use of inverse gas chromatography to characterize cotton fabrics and their interactions with fragrance molecules at controlled relative humidity 969(2002)103

Free-flow electrophoresis

Free-flow electrophoresis in a microfabricated chamber with a micromodule fraction separator. Continuous separation of proteins 990(2003)169

Frit inlet asymmetrical flow field-flow fractionation

Field and flow programming in frit-inlet asymmetrical flow field-flow fractionation 955(2002)263

Frits

Microcolumns with self-assembled particle frits for proteomics 979(2002)233

Frontal analysis

Chemiluminescence detection coupled to high-performance frontal analysis for the determination of unbound concentrations of drugs in protein binding equilibrium 952(2002)131

Comparison of the adsorption equilibrium of a few low-molecular mass compounds on a monolithic and a packed column in reversed-phase liquid chromatograph 978(2002)81

Study of the mass transfer kinetics in a monolithic column 983(2003)51

Determination of single component isotherms and affinity energy distribution by chromatography 988(2003)185

Influence of the particle porosity on chromatographic band profiles 989(2003)207

Effect of the mobile phase composition on the isotherm parameters and the high concentration band profiles in reversed-phase liquid chromatography 995(2003)37

Fruit juices

Combination of supported liquid membrane and solid-phase extraction for sample pretreatment of triazine herbicides in juice prior to capillary electrophoresis determination 975(2002)219

Pervaporation–gas chromatography coupling for slurry samples. Determination of acetaldehyde and acetone in food 976(2002)399

Separation and determination of organic acids and phenolic compounds in fruit juices and drinks by high-performance liquid chromatography 977(2002)89

Liquid chromatography-mass spectrometry and liquid chromatography-tandem mass spectrometry of the *Alternaria* mycotoxins alternariol and alternariol monomethyl ether in fruit juices and beverages 998(2003)119

Fruits

see also Grapes

Application of gas chromatography-tandem mass spectrometry to the analysis of pesticides in fruits and vegetables 959(2002)203

Simple method for reversed-phase high-performance liquid chromatographic analysis of fungal pigments in fruit-bodies of Boletales (Fungi) 964(2002)129

Determination of *Penicillium* mycotoxins in foods and feeds using liquid chromatography-mass spectrometry 964(2002)189

Rapid characterization of anthocyanins in red raspberry fruit by high-performance liquid chromatography coupled to single quadrupole mass spectrometry 966(2002)63

Solid-phase microextraction and gas chromatography-mass spectrometry for the rapid screening of triazole residues in wine and strawberries 967(2002)255

Application of matrix solid-phase dispersion to the determination of a new generation of fungicides in fruits and vegetables 968(2002)201

Aqueous two-phase extraction as an effective tool for isolation of geniposide from gardenia fruit 977(2002)239

Multi-residue method for rapid screening and confirmation of pesticides in crude extracts of fruits and vegetables using isocratic liquid chromatography with electrospray tandem mass spectrometry 982(2002)225

Headspace gas chromatography-mass spectrometry of volatile compounds in murici (*Byrsonima crassifolia* L. Rich) 985(2003)297

Multiresidue method for fourteen fungicides in white grapes by liquid-liquid and solid-phase extraction followed by liquid chromatography-diode array detection 992(2003)121

Determination of abamectin and azadirachtin residues in orange samples by liquid chromatography–electrospray tandem mass spectrometry 992(2003)133

Headspace solid-phase microextraction in combination with gas chromatography-mass spectrometry for the rapid screening of organophosphorus insecticide residues in strawberries and cherries 993(2003)197

Rapid multi-residue method for the determination of azinphos methyl, bromopropylate, chlorpyrifos, dimethoate, parathion methyl and phosalone in apricots and peaches by using negative chemical ionization ion trap technology 996(2003)181

Strategies for the determination of bioactive phenols in plants, fruit and vegetables (Review) 1000(2003)657

Multi-residue screening of pesticides in vegetables, fruits and baby food by stir bar sorptive extraction-thermal desorptioncapillary gas chromatography-mass spectrometry (Review) 1000(2003)299

Fuel

Determination of total and polycyclic aromatic hydrocarbons in aviation jet fuel 985(2003)197

Preliminary characterization of anhydrous ethanol used in Brazil as automotive fuel 985(2003)367

Full-column imaging capillary isoelectric focusing

Use of full-column imaging capillary isoelectric focusing for the rapid determination of the operating conditions in the preparative-scale continuous free-flow isoelectric focusing separation of enantiomers 960(2002)241

FUMI theory

Prediction of measurement precision of apparatus using a chemometric tool in electrochemical detection of high-performance liquid chromatography 986(2003)239

Fusarium spp.

Liquid chromatographic determination of toxigenic secondary metabolites produced by *Fusarium* strains 955(2002)245



Gardenia fruit

Identification and determination of geniposide contained in *Gardenia jasminoides* and in two preparations of mixed traditional Chinese medicines 961(2002)83

Aqueous two-phase extraction as an effective tool for isolation of geniposide from gardenia fruit 977(2002)239

Gardenia jasminoides

Identification and determination of geniposide contained in *Gardenia jasminoides* and in two preparations of mixed traditional Chinese medicines 961(2002)83

Garlic

High-performance ion-pair chromatography method for simultaneous analysis of alliin, deoxyalliin, allicin and dipeptide precursors in garlic products using multiple mass spectrometry and UV detection 991(2003)69

Gas chromatography

see also Inverse gas chromatography and Reversed-flow gas chromatography

Effects of solvent density on retention in gas-liquid chromatography. I. Alkanes solutes in polyethylene glycol stationary phases 953(2002)151

Contribution to the time balance in gas-liquid chromatography. New definition equations of the retention times and retention volumes 966(2002)145

Gas chromatographic methods for oil analysis (Review) 972(2002)137

Changes in the basic experimental parameters of capillary gas chromatography in the 20th century (Review) 985(2003)3

Quantitative accuracy in the gas chromatographic analysis of solvent mixtures 985(2003)21

Carrier gas as a new factor influencing the selectivity of the gas-stationary liquid phase chromatographic system 985(2003)57

Comments on the early history of gas chromatographic methods for oil analysis 993(2003)217

Reply to "Comments to the early history of gas chromatographic methods for oil analysis" by L.S. Ettre 993(2003)221

Practical approaches to fast gas chromatography-mass spectrometry (Review) 1000(2003)153

Hyphenation and hypernation. The practice and prospects of multiple hyphenation (Review) 1000(2003)325

Gas chromatography, comprehensive two-dimensional

High-resolution separation of polychlorinated biphenyls by comprehensive two-dimensional gas chromatography 958(2002)203

Theoretical study of incomplete sampling of the first dimension in comprehensive two-dimensional chromatography 962(2002)21

Effects of temperature and flow regulated carbon dioxide cooling in longitudinally modulated cryogenic systems for comprehensive two-dimensional gas chromatography 962(2002)127

Influence of chromatographic conditions on separation in comprehensive gas chromatography 962(2002)135

Comprehensive two-dimensional gas chromatography with timeof-flight mass spectrometric detection applied to the determination of pesticides in food extracts 965(2002)207

Retention time reproducibility in comprehensive twodimensional gas chromatography using cryogenic modulation. An intralaboratory study 968(2002)161

Characterisation of lavender essential oils by using gas chromatography—mass spectrometry with correlation of linear retention indices and comparison with comprehensive two-dimensional gas chromatography 970(2002)225

Unravelling the composition of very complex samples by comprehensive gas chromatography coupled to time-of-flight mass spectrometry. Cigarette smoke 974(2002)169

Comprehensive two-dimensional gas chromatography of volatile and semi-volatile components using a diaphragm valve-based instrument 983(2003)195

Comprehensive two-dimensional gas chromatography: metrics, potentials, limits 985(2003)29

Image background removal in comprehensive two-dimensional gas chromatography (Review) 985(2003)47

Attempt to unravel the composition of toxaphene by comprehensive two-dimensional gas chromatography with selective detection 994(2003)179

Comprehensive two-dimensional gas chromatography: a powerful and versatile analytical tool 1000(2003)69

Application of comprehensive two-dimensional gas chromatography to drugs analysis in doping control (Review) 1000(2003)109

Gas chromatography, fast

Fast gas chromatography and its use in trace analysis (Review) 1000(2003)199

Practical approaches to fast gas chromatography-mass spectrometry (Review) 1000(2003)153

Gas chromatography, recycle

Theoretical and experimental study of recycle capillary gas chromatography with carrier gas propelled by a peristaltic pump 993(2003)47

Gas chromatography-mass spectrometry

see also Mass spectrometry

Extending the range of compounds amenable for gas chromatography-mass spectometric analysis 991(2003)217

Modern developments in gas chromatography-mass spectrometry-based environmental analysis (Review) 1000(2003)125

Practical approaches to fast gas chromatography-mass spectrometry (Review) 1000(2003)153

Gas condensates

Speciation analysis for mercury in gas condensates by capillary gas chromatography with inductively coupled plasma mass spectrometric detection 976(2002)431

Gasoline

Determination of benzylsuccinic acid in gasoline-contaminated groundwater by solid-phase extraction coupled with gas chromatography-mass spectrometry 953(2002)215

Column switching-back flushing technique for the analysis of aromatic compounds in gasoline 972(2002)253

Headspace microdrop analysis—an alternative test method for gasoline diluent and benzene, toluene, ethylbenzene and xylenes in used engine oils 983(2003)205

Simultaneous determination of methyl *tert.*-butyl ether and its degradation products, other gasoline oxygenates and benzene, toluene, ethylbenzene and xylenes in Catalonian groundwater by purge-and-trap-gas chromatography-mass spectrometry 995(2003)171

Gem-diol formation

Kinetic analysis and subambient temperature on-line on-column derivatization of an active aldehyde 995(2003)67

General rate model

Application of the general rate model and the generalized Maxwell–Stefan equation to the study of the mass transfer kinetics of a pair of enantiomers 962(2002)57

Generalized Maxwell-Stefan equation

Application of the general rate model and the generalized Maxwell–Stefan equation to the study of the mass transfer kinetics of a pair of enantiomers 962(2002)57

Generalized rank annihilation method

Using second-order calibration to identify and quantify aromatic sulfonates in water by high-performance liquid chromatography in the presence of coeluting interferences 988(2003)277

Genotoxicity detection

Surface and wastewater quality monitoring: combination of liquid chromatography with (geno)toxicity detection, diode array detection and tandem mass spectrometry for identification of pollutants 970(2002)167

Geochemistry

Determination of lanthanides in synthetic standards by reversedphase high-performance liquid chromatography with the aid of a weighted least-squares regression model. Estimation of method sensitivities and detection limits 997(2003)171

Geological samples

Column chromatographic separation of uranium(VI) and other elements using poly(dibenzo-18-crown-6) and ascorbic acid medium 983(2003)277

Geometrical isomers

Separation of conjugated trienoic fatty acid isomers by capillary electrophoresis 985(2003)471

Ghost peaks

Position and intensity of system (eigen) peaks in capillary zone electrophoresis 960(2002)175

Ginger

Analysis of a ginger extract by high-performance liquid chromatography coupled to nuclear magnetic resonance spectroscopy using superheated deuterium oxide as the mobile phase 991(2003)143

Ginkgo biloba

Chemical analysis of *Ginkgo biloba* leaves and extracts (Review) 967(2002)21

Ginkgo biloba extract preserves pyruvate and enhances ascorbate in the cortex of gerbils during focal cerebral ischemia. A microdialysis–liquid chromatography study 985(2003)387

Development and validation of a gas chromatographic-mass spectrometric method for simultaneous identification and quantification of marker compounds including bilobalide, ginkgolides and flavonoids in *Ginkgo biloba* L. extract and pharmaceutical preparations 986(2003)121

Glass fibers

Surface heterogeneity and surface area from linear inverse gas chromatography. Application to glass fibers 969(2002)153

Global atmosphere watch

C₂-C₈ Hydrocarbon measurement and quality control procedures at the Global Atmosphere Watch Observatory Hohenpeissenberg 953(2002)175

Glycopeptide mapping

Structural analysis of a glycoprotein by liquid chromatography—mass spectrometry and liquid chromatography with tandem mass spectrometry. Application to recombinant human thrombomodulin 978(2002)141

Gradient elution

Change of mobile phase pH during gradient reversed-phase chromatography with 2,2,2-trifluoroethanol-water as mobile phase and its effect on the chromatographic hydrophobicity index determination 954(2002)77

Use of a linear gradient flow program for liquid chromatography-mass spectrometry protein-binding studies 955(2002)237

Solving complex anion separation problems with a carbonate-hydrogenearbonate gradient 956(2002)71

Molecular modelling of chain end effects in separating oligomers by reversed-phase gradient polymer elution chromatography; adsorption transition as revealed by a self-consistent-field theory for polymer adsorption 959(2002)37

Dual gradient ion-exchange chromatography improved refolding yield of lysozyme 959(2002)113

Comments on "Ion-exchange liquid chromatographic analysis of bisphosphonates by on-line post-column photochemical reaction and spectrophotometric detection" [J. Chromatogr. A 914 (2001) 105–110] 961(2002)293

Combination of linear solvent strength model and quantitative structure–retention relationships as a comprehensive procedure of approximate prediction of retention in gradient liquid chromatography 962(2002)41

Predicting the behaviour of polydisperse polymers in liquid chromatography under isocratic and gradient conditions 965(2002)93

Lipophilicity and pK_a estimates from gradient high-performance liquid chromatography 965(2002)117

Gradient elution in normal-phase high-performance liquid chromatographic systems 965(2002)239

Gradient separation of polymers at critical point of adsorption 966(2002)25

Impact of normal-phase gradient elution in chiral chromatography: a novel, robust, efficient and rapid chiral screening procedure 983(2003)101

Hydrophobicity gradient columns for the separation of trypsin inhibitor by hydrophobic interaction chromatography at low salt concentration 986(2003)83

Predictive approaches to gradient retention based on analyte structural descriptors from calculation chemistry 987(2003)29

Reversed-phase liquid chromatography of biologically active lipophilic chelators. II. Improvement of chromatographic performance and selected applications in biochemical analysis 987(2003)169

Separation of peptides by pressurized capillary electrochromatography 987(2003)453

Linear two-step gradient counter-current chromatography. Analysis based on a recursive solution of an equilibrium stage model 989(2003)31

Automated microgradient system for capillary electrochromatography 990(2003)3

Chemical compositional separation of styrene—methyl methacrylate copolymers using high-performance liquid chromatography with liquefied carbon dioxide as eluent 991(2003)197

Rapid identification and quantitation of compounds with forensic interest using fast liquid chromatography—ion trap mass spectrometry and library searching 994(2003)93

Novel cation-exchange column for the separation of hydrophobic and/or polyvalent amines 997(2003)199

Gradient polymer elution chromatography

Determining the vinyl alcohol distribution in poly(vinyl butyral) using normal-phase gradient polymer elution chromatography 971(2002)151

Determining and correcting "moment bias" in gradient polymer elution chromatography 996(2003)45

Gradient retention time

Change of mobile phase pH during gradient reversed-phase chromatography with 2,2,2-trifluoroethanol-water as mobile phase and its effect on the chromatographic hydrophobicity index determination 954(2002)77

Gradiflow

Preparative-scale isoelectric trapping separations using a modified Gradiflow unit 979(2002)155

Preparative-scale isoelectric trapping enantiomer separations 989(2003)73

Grafting

Separation of proteins on polymeric stationary phases grafted with various amine groups 987(2003)323

Graft polymerization

Solvent effect on protein binding by polymer brush grafted onto porous membranes 953(2002)101

Binding of ionic surfactants to charged polymer brushes grafted onto porous substrates 954(2002)89

Grain

Simultaneous quantification of A-trichothecene mycotoxins in grains using liquid chromatography-atmospheric pressure chemical ionisation mass spectrometry 968(2002)129

Grapes

see also Fruits

In-line pressurized-fluid extraction-solid-phase extraction for determining phenolic compounds in grapes 968(2002)1

Multiresidue method for fourteen fungicides in white grapes by liquid–liquid and solid-phase extraction followed by liquid chromatography—diode array detection 992(2003)121

Analysis of proanthocyanidins by high-performance gel permeation chromatography 995(2003)99

Graphite

Determination of surface heterogeneity profiles on graphite by finite concentration inverse gas chromatography 969(2002)323

Graphite furnace atomic absorption spectrometry

Hydrophobic interaction chromatographic separation of proteins in human blood fractions hyphenated to atomic spectrometry as detector of essential elements 960(2002)143

Graphitized carbon black

see Porous graphitized carbon

Gravitational field-flow fractionation

Different elution modes and field programming in gravitational field-flow fractionation. IV. Field programming achieved with channels of non-constant cross-sections 955(2002)95

Improved performance of gravitational field-flow fractionation for screening wine-making yeast varieties 966(2002)135

Grignard derivatization

Analysis of organotin compounds by grignard derivatization and gas chromatography-ion trap tandem mass spectrometry 962(2002)197



Haarhoff-Van der Linde function

Electromigration dispersion in capillary zone electrophoresis. Experimental validation of use of the Haarhoff-Van der Linde function 959(2002)229

Hailstones

Capillary electrophoretic analysis of inorganic anions in atmospheric hailstone samples 956(2002)279

Halogen-specific detection

Identification and confirmation of traces of chlorinated fatty acids in fish downstream of bleached kraft pulp mills by gas chromatography with halogen-specific detection 994(2003)137

Hammett's equation

Quantitative structure-retention relationships of phenolic compounds without Hammett's equations 985(2003)343

Hardware solution

Theoretical and experimental study of recycle capillary gas chromatography with carrier gas propelled by a peristaltic pump 993(2003)47

Hawthorn

High-performance liquid chromatographic determination of oligomeric procyanidins from dimers up to the hexamer in hawthorn 968(2002)53

Headspace analysis

Headspace solid-phase microextraction analysis of 3-alkyl-2-methoxypyrazines in wines 953(2002)1

Optimisation of headspace solid-phase microextraction for analysis of aromatic compounds in vinegar 953(2002)7

Headspace solid-phase microextraction of higher fatty acid ethyl esters in white rum aroma 954(2002)51

Automated headspace solid-phase dynamic extraction for the determination of amphetamines and synthetic designer drugs in hair samples 958(2002)231

Optimization of a derivatization-solid-phase microextraction method for the analysis of thirty phenolic pollutants in water samples 963(2002)137

Determination of esters in dry and sweet white wines by headspace solid-phase microextraction and gas chromatography 963(2002)213

Determination of volatile alkyl sulfides in wastewater by headspace solid-phase microextraction followed by gas chromatography—mass spectrometry 963(2002)249

Optimization of headspace solid-phase microextraction by means of an experimental design for the determination of methyl *tert.*-butyl ether in water by gas chromatography–flame ionization detection 963(2002)259

Optimisation of a solid-phase microextraction method for synthetic musk compounds in water 963(2002)277

Methylmercury determination in biological samples by derivatization, solid-phase microextraction and gas chromatography with microwave-induced plasma atomic emission spectrometry 963(2002)313

Determination of methylmercury in human hair by ethylation followed by headspace solid-phase microextraction—gas chromatography—cold-vapour atomic fluorescence spectrometry 963(2002)345

Development of a headspace solid-phase microextraction—gas chromatography—mass spectrometry method for the identification of odour-causing volatile compounds in packaging materials 963(2002)381

Gas chromatographic determination of 2-hydroxy-4-methoxybenzophenone and octyldimethyl-p-aminobenzoic acid sunscreen agents in swimming pool and bathing waters by solid-phase microextraction 967(2002)243

Headspace solid-phase microextraction analysis of aroma compounds in vinegar. Validation study 967(2002)261

Application of headspace solid-phase microextraction and gas chromatography-mass spectrometry for detection of the chemical warfare agent bis(2-chloroethyl) sulfide in soil 971(2002)185

Determination of 4-ethylguaiacol and 4-ethylphenol in red wines using headspace-solid-phase microextraction-gas chromatography 975(2002)349

Determination of dichlorvos by on-line microwave-assisted extraction coupled to headspace solid-phase microextraction and gas chromatography-electron-capture detection 976(2002)349

Determination of 2,4,6-trichloroanisole in wines by headspace solid-phase microextraction and gas chromatography-electron-capture detection 977(2002)1

Optimization of the headspace solid-phase microextraction for determination of glycol ethers by orthogonal array designs 977(2002)9

Analytical characteristics of the determination of benzene, toluene, ethylbenzene and xylenes in water by headspace solvent microextraction 977(2002)143

Analysis of virgin olive oil volatile compounds by headspace solid-phase microextraction coupled to gas chromatography with mass spectrometric and flame ionization detection 983(2003)19

Headspace microdrop analysis—an alternative test method for gasoline diluent and benzene, toluene, ethylbenzene and xylenes in used engine oils 983(2003)205

New high-performance cryofocalizer injector for in-tube solidphase microextraction and headspace capillary gas chromatographic applications 985(2003)67

Comparison of solid-phase microextraction and purge-and-trap methods for the analysis of the volatile fraction of butter 985(2003)117

Monitoring and fast detection of mycotoxin-producing fungi based on headspace solid-phase microextraction and headspace sorptive extraction of the volatile metabolites 985(2003)127

Direct quantitation of volatile organic compounds in packaging materials by headspace solid-phase microextraction—gas chromatography—mass spectrometry 985(2003)247

Enflurane as an internal standard in monitoring halogenated volatile anaesthetics by headspace gas chromatography-mass spectrometry 985(2003)259

Headspace gas chromatography-mass spectrometry of volatile compounds in murici (*Byrsonima crassifolia* L. Rich) 985(2003)297

Competitive extraction of multi-component contaminants in water by Carboxen-polydimethylsiloxane fiber during solid-phase microextraction 988(2003)177

Determination of major compounds in sweet wines by headspace solid-phase microextraction and gas chromatography 991(2003)13

Headspace solid-phase microextraction in combination with gas chromatography-mass spectrometry for the rapid screening of organophosphorus insecticide residues in strawberries and cherries 993(2003)197

Optimisation of headspace solid-phase microextraction for the analysis of volatile phenols in wine 995(2003)11

Determination of the solubility of inorganic salts by headspace gas chromatography 996(2003)157

Multiple headspace solid-phase microextraction for the quantitative determination of volatile organic compounds in multilayer packagings 999(2003)155

Determination of musk compounds in sewage treatment plant sludge samples by solid-phase microextraction 999(2003)185

Use of solid-phase microextraction coupled with gas chromatography for the determination of residual solvents in pharmaceutical products 999(2003)195

Heart-cutting

Development of a two-dimensional liquid chromatography system with trapping and sample enrichment capabilities 968(2002)41

Heat capacity

Minimum in the temperature dependence of the Kováts retention indices of nitroalkanes and alkanenitriles on an apolar phase 985(2003)11

Heat of adsorption

Erratum to "Characterization of enthalpic events in overloaded ion-exchange chromatography". [J. Chromatogr. A, 944 (2002) 61–68] 952(2002)301

Characterization of polyarylamide fibers by inverse gas chromatography 962(2002)153

Heat transfer

Ion chromatographic identification and quantification of glycol degradation products 997(2003)279

Heat treatment

Towards the understanding of molecular mechanisms in the early stages of heat-induced aggregation of β -lactoglobulin AB 970(2002)275

Helium head pressure

Anomalous effects of helium head pressure carbon dioxide in supercritical fluid chromatography and extraction 986(2003)129

Hemoperfusion

Hypercross-linked polystyrene and its potentials for liquid chromatography: a mini-review (Review) 965(2002)65

Heterogeneous catalysis

Heterogeneous catalysis on solids of gases diffusing through a liquid layer, studied by inverse gas chromatography 977(2002)107

High osmotic pressure chromatography

Scale-up study of high osmotic pressure chromatography for separation of poly(e-caprolactone) 996(2003)71

Hindered amine stabilizers

Highly sensitive determination of a polymeric hindered amine light stabilizer in polypropylene by reactive thermal desorption—gas chromatography using nitrogen-specific detection 993(2003)137

Hold-up time

Chromatographic behaviour of selected steroids and their inclusion complexes with β -cyclodextrin on octadecylsilica stationary phases with different carbon loads 955(2002)71

Hollow-fiber membranes

Analysis of phenoxy herbicides in bovine milk by means of liquid–liquid–liquid microextraction with a hollow-fiber membrane 963(2002)335

Determination of organochlorine pesticides in seawater using liquid-phase hollow fibre membrane microextraction and gas chromatography-mass spectrometry 968(2002)191

Semi-automated hollow-fibre membrane extraction, a novel enrichment technique for the determination of biologically active compounds in water samples 985(2003)99

Screening method for polycyclic aromatic hydrocarbons in soil using hollow fiber membrane solvent microextraction 982(2002)201

Hollow-fibre liquid-phase microextraction of phthalate esters from water 999(2003)145

Hollow fibers

Recovery, enrichment and selectivity in liquid-phase microextraction. Comparison with conventional liquid-liquid extraction 963(2002)3

Analysis of aromatic amines in water samples by liquid—liquid—liquid microextraction with hollow fibers and high-performance liquid chromatography 963(2002)239

Liquid-phase microextraction combined with capillary electrophoresis, a promising tool for the determination of chiral drugs in biological matrices 963(2002)303

Voltage-controlled separation of proteins by electromobility focusing in a dialysis hollow fiber 985(2003)455

Hyperlayer hollow-fiber flow field-flow fractionation of cells 985(2003)519

Homogeneous diffusion

Analysis of diffusion models for protein adsorption to porous anion-exchange adsorbent 962(2002)29

Honey

Determination of acaricides in honey by high-performance liquid chromatography with photodiode array detection 954(2002)173

Extraction of thymol, eucalyptol, menthol, and camphor residues from honey and beeswax. Determination by gas chromatography with flame ionization detection 954(2002)207

Rapid determination of minority organic acids in honey by high-performance liquid chromatography 955(2002)207

Application of liquid chromatography-electrospray ionization tandem mass spectrometry to the detection of 10 sulfonamides in honey 977(2002)77

Honeybees

Simple method for the determination of trace levels of pesticides in honeybees using matrix solid-phase dispersion and gas chromatography 982(2002)267

Hop

Analysis of proanthocyanidins by high-performance gel permeation chromatography 995(2003)99

Hospital wastewater

Analytical method for the determination of the aminoglycoside gentamicin in hospital wastewater via LC-electrospray-tandem MS (Review) 1000(2003)583

Hot water extraction

Thermodynamic and kinetic models for the extraction of essential oil from savory and polycyclic aromatic hydrocarbons from soil with hot (subcritical) water and supercritical ${\rm CO}_2$ 975(2002)175

H2-Receptor antagonist

Determination of ebrotidine and its metabolites by micellar electrokinetic capillary chromatography 976(2002)221

Huber, J.F.K.

Reminiscence of Prof. J.F.K. Huber 960(2002)3

Hubbard-Onsager model

Capillary electrophoresis in aqueous-organic media. Ionic strength effects and limitations of the Hubbard-Onsager dielectric friction model 964(2002)213

Human endogenous retrovirus

Purification of proteins specifically binding human endogenous retrovirus K long terminal repeat by affinity elution chromatography 976(2002)95

Human immunodeficiency virus

Mapping of protein:protein contact surfaces by hydrogen/deuterium exchange, followed by on-line high-performance liquid chromatography-electrospray ionization fourier-transform ion-cyclotron-resonance mass analysis 982(2002)85

Simultaneous separation of 11 protease and reverse transcriptase inhibitors for human immunodeficiency virus therapy by coelectroosmotic capillary zone electrophoresis 982(2002)153

Hybrid plant cell suspension cultures

High-performance liquid chromatographic, capillary electrophoretic and capillary electrophoretic-electrospray ionisation mass spectrometric analysis of selected alkaloid groups (Review) 967(2002)85

Hydrocarbon group type analysis

Optimized conditions for hydrocarbon group type analysis of base oils by thin-layer chromatography—flame ionisation detection 991(2003)255

Hydrodynamic lift forces

Different elution modes and field programming in gravitational field-flow fractionation. IV. Field programming achieved with channels of non-constant cross-sections 955(2002)95

Hydrodynamic relaxation

Field and flow programming in frit-inlet asymmetrical flow field-flow fractionation 955(2002)263

Hydrodynamic volume

Study on the concentration effects in size exclusion chromatography. VII. A quantitative verification for the model theory of concentration and molecular mass dependences of hydrodynamic volumes for polydisperse polymers 961(2002)155

Hydrogen bond acidity

Column selectivity in reversed-phase liquid chromatography. IV. Type-B alkyl-silica columns (Review) 1000(2003)757

Hydrogen bond basicity

Column selectivity in reversed-phase liquid chromatography. IV. Type-B alkyl-silica columns (Review) 1000(2003)757

Hydrogen bonding

Utilization of synergetic effect of weak interactions in the design of polymeric sorbents with high sorption selectivity 952(2002)71

Column selectivity in reversed-phase liquid chromatography. III. The physico-chemical basis of selectivity 961(2002)217

Hydrogen-deuterium exchange

Mapping of protein:protein contact surfaces by hydrogen/deuterium exchange, followed by on-line high-performance liquid chromatography-electrospray ionization fourier-transform ion-cyclotron-resonance mass analysis 982(2002)85

Hydrolysis

At-line gas chromatographic-mass spectrometric analysis of fatty acid profiles of green microalgae using a direct thermal desorption interface 959(2002)191

Hydrophilic interaction chromatography

New sample preparation technique for the determination of avoparcin in pressurized hot water extracts from kidney samples 954(2002)41

Characterization of a novel diol column for high-performance liquid chromatography 987(2003)119

Hydrophilicity

Reversed-phase liquid chromatography as a tool in the determination of the hydrophilicity/hydrophobicity of amino acid side-chains at a ligand-receptor interface in the presence of different aqueous environments. I. Effect of varying receptor hydrophobicity 972(2002)45

Reversed-phase liquid chromatography as a tool in the determination of the hydrophilicity/hydrophobicity of amino acid side-chains at a ligand-receptor interface in the presence of different aqueous environments. II. Effect of varying peptide ligand hydrophobicity 972(2002)61

Hydrophobic adsorption

Modeling of the salt effects on hydrophobic adsorption equilibrium of protein 992(2003)29

Hydrophobic charge induction chromatography

Initial purification of recombinant botulinum neurotoxin fragments for pharmaceutical production using hydrophobic charge induction chromatography 952(2002)99

Hydrophobiic gradients

Utilization of synergetic effect of weak interactions in the design of polymeric sorbents with high sorption selectivity 952(2002)71

Hydrophobic interaction chromatography

Utilization of synergetic effect of weak interactions in the design of polymeric sorbents with high sorption selectivity 952(2002)71

Evaluation of *n*-valeraldehyde modified chitosan as a matrix for hydrophobic interaction chromatography 952(2002)79

Aqueous chromatography utilizing hydrophobicity-modified anionic temperature-responsive hydrogel for stationary phases 958(2002)109

New chromatographic method for separation and determination of denatured $\alpha_{s_1}^{-}$, $\alpha_{s_2}^{-}$, β - and κ -caseins by hydrophobic interaction chromatography 958(2002)157

Column selectivity in reversed-phase liquid chromatography. III. The physico-chemical basis of selectivity 961(2002)217

Hydrophobic interaction ligand selection and scale-up of an expanded bed separation of an intracellular enzyme from *Saccharomyces cerevisiae* 968(2002)121

Separation of proteins by hydrophobic interaction chromatography at low salt concentration 971(2002)143

Hydrophobic interaction chromatography of proteins. I. Comparison of selectivity 972(2002)3

Rapid analysis of a plasmid by hydrophobic-interaction chromatography with a non-porous resin 972(2002)77

Mathematical correlations for predicting protein retention times in hydrophobic interaction chromatography 978(2002)71

Hydrophobicity gradient columns for the separation of trypsin inhibitor by hydrophobic interaction chromatography at low salt concentration 986(2003)83

Modeling of adsorption in hydrophobic interaction chromatography systems using a preferential interaction quadratic isotherm 989(2003)47

Separation and determination of denatured α_{s1} -, α_{s2} -, β - and κ -caseins by hydrophobic interaction chromatography in cows', ewes' and goats' milk, milk mixtures and cheeses 994(2003)59

Assessment of purity and quantification of plasmid DNA in process solutions using high-performance hydrophobic interaction chromatography 998(2003)109

Analysis of food proteins and peptides by chromatography and mass spectrometry (Review) 1000(2003)609

Hydrophobicity

see also Lipophilicity

Hydrophobicity gradient columns for the separation of trypsin inhibitor by hydrophobic interaction chromatography at low salt concentration 986(2003)83

Method for measuring the logarithm of the octanol-water partition coefficient by using short octadecyl-poly(vinyl alcohol) high-performance liquid chromatography columns 952(2002)47

Lipophilicity and pK_a estimates from gradient high-performance liquid chromatography 965(2002)117

Reversed-phase liquid chromatography as a tool in the determination of the hydrophilicity/hydrophobicity of amino acid side-chains at a ligand-receptor interface in the presence of different aqueous environments. I. Effect of varying receptor hydrophobicity 972(2002)45

Reversed-phase liquid chromatography as a tool in the determination of the hydrophilicity/hydrophobicity of amino acid side-chains at a ligand-receptor interface in the presence of different aqueous environments. II. Effect of varying peptide ligand hydrophobicity 972(2002)61

Mathematical correlations for predicting protein retention times in hydrophobic interaction chromatography 978(2002)71

pH dependence of the hydrophobicity of β -blocker amine compounds measured by counter-current chromatography 995(2003)55

Evaluation of methods for measuring amino acid hydrophobicities and interactions (Review) 1000(2003)637

Column selectivity in reversed-phase liquid chromatography. IV. Type-B alkyl-silica columns (Review) 1000(2003)757

Hydrophobicity index

Change of mobile phase pH during gradient reversed-phase chromatography with 2,2,2-trifluoroethanol-water as mobile phase and its effect on the chromatographic hydrophobicity index determination 954(2002)77

Hydrosilation

Synthesis and evaluation of a C_8 stationary phase on a silica hydride surface by hydrosilation of 1-octyne 992(2003)57

Hypericum perforatum

On-line coupling of capillary isotachophoresis and capillary zone electrophoresis for the determination of flavonoids in methanolic extracts of *Hypericum perforatum* leaves or flowers 958(2002)261

Use of an on-line, precolumn photochemical reactor in highperformance liquid chromatography of naphthodianthrones in *Hypericum perforatum* preparations 987(2003)181

Hypernation

Hyphenation and hypernation. The practice and prospects of multiple hyphenation (Review) 1000(2003)325

Hyphenated techniques

see also Special Issue Index

Hyphenation and hypernation. The practice and prospects of multiple hyphenation (Review) 1000(2003)325

Hyphenation of capillary separations with nuclear magnetic resonance spectroscopy (Review) 1000(2003)819

I

Identification criteria, GC-MS

Automated storage of gas chromatography-mass spectrometry data in a relational database to facilitate compound screening and identification 974(2002)223

Image background removal

Image background removal in comprehensive two-dimensional gas chromatography 985(2003)47

Immobilization

High-performance liquid chromatographic stationary phases based on poly(methyloctylsiloxane) immobilized on silica. III. Stability evaluations 987(2003)93

Immobilized artificial membranes

Immobilized artificial membrane liquid chromatography: proposed guidelines for technical optimization of retention measurements 953(2002)39

Salt effects on the interaction of an amphiphilic model molecule with immobilized phosphatidylcholine monolayers 977(2002)185

Chemometric comparison of recent chromatographic and electrophoretic methods in a quantitative structure-retention and retention-activity relationship context 986(2003)227

Immobilized enzymes

Development and characterization of an immobilized enzyme reactor based on glyceraldehyde-3-phosphate dehydrogenase for on-line enzymatic studies 987(2003)331

Immobilized liposome chromatography

Immobilized liposome chromatography to study drug-membrane interactions. Correlation with drug absorption in humans 961(2002)113

Immobilized metal affinity chromatography

Comparison of histidine-tag capture chemistries for purification following chemical extraction 953(2002)111

Purification of the specific immunoglobulin G_1 by immobilized metal ion affinity chromatography using nickel complexes of chelating porous and nonporous polymeric sorbents based on poly(methacrylic esters). Effect of polymer structure 954(2002)115

On-line purification of His-tag enhanced green fluorescent protein taken directly from a bioreactor by continuous ultrasonic homogenization coupled with immobilized metal affinity expanded bed adsorption 968(2002)113

Chromatography of microbial cells using continuous supermacroporous affinity and ion-exchange columns 977(2002)27

Immobilized metal-ion affinity chromatography of recombinant Fab protein OPG C11 in the presence of EDTA-Mg(II) 978(2002)153

Nickel and copper complexes of a chelating methacrylate sorbent in the purification of chitinases and specific immunoglobulin G_1 by immobilized metal ion affinity chromatography 983(2003)125

Protein proteolysis and the multi-dimensional electrochromatographic separation of histidine-containing peptide fragments on a chip 984(2003)97

Direct chromatographic capture of enzyme from crude homogenate using immobilized metal affinity chromatography on a continuous supermacroporous adsorbent 986(2003)275

Current and prospective applications of metal ion-protein binding (Review) 988(2003)1

Analysis of protein adsorption on regenerated cellulose-based immobilized copper ion affinity membranes 996(2003)53

Optimization of immobilized metal ion affinity chromatography for single-step purification of recombinant ovine growth hormone expressed in *Escherichia coli* 998(2003)93

Immobilized proteins

Use of a linear gradient flow program for liquid chromatography—mass spectrometry protein-binding studies 955(2002)237

Determination of amoxycillin in human plasma by direct injection and coupled-column high-performance liquid chromatography 987(2003)235

Immunoadsorbents

see also Affinity adsorbents

Adsorption kinetics of β-lactoglobulin on a polyclonal immunochromatographic support 953(2002)17

Immunoaffnity chromatography

see also Affinity chromatography

Preparation of immunoaffinity columns for direct enantiomeric separation of amphetamine and/or methamphetamine 967(2002)191

Immunoaffinity electrophoresis

Capillary electrophoretic enzyme immunoassay with electrochemical detection for cortisol 966(2002)187

Immunoaffinity extraction

Experimental comparison of three monoclonal antibodies for the class-selective immunoextraction of triazines. Correlation with molecular modeling and principal component analysis studies 999(2003)3

Immuno-based sample preparation for trace analysis (Review) 1000(2003)29

Immunoassays

Rapid trace analysis of alachlor in water and vegetable samples 963(2002)125

Immunofiltration

Immuno-based sample preparation for trace analysis (Review) 1000(2003)29

In-capillary digestion

Estimation of sialic acid in a sialoglycan and a sialoglycoprotein by capillary electrophoresis with in-capillary sialidase digestion 954(2002)259

In-capillary enzyme reaction

Simultaneous determination of water-soluble vitamins in a vitamin-enriched drink by an in-capillary enzyme reaction method 986(2003)153

Inclusion bodies

Comparison of histidine-tag capture chemistries for purification following chemical extraction 953(2002)111

Indirect detection

see also Detection

Simultaneous separation of common mono- and divalent cations on a calcinated silica gel column by ion chromatography with indirect photometric detection and aromatic monoamines—oxalic acid, containing crown ethers, used as eluent 956(2002)147

Analysis of glyphosate, glufosinate and aminomethylphosphonic acid by capillary electrophoresis with indirect fluorescence detection 959(2002)309

Position and intensity of system (eigen) peaks in capillary zone electrophoresis 960(2002)175

Development and validation of a capillary electrophoresis—indirect photometric detection method for the determination of the non-UV-absorbing 1,4-dideoxy-1,4-imino-p-arabinitol in active pharmaceutical ingredients, solutions and tablets using an internal standard 996(2003)213

Highly sensitive indirect photometric detection of cations by capillary electrophoresis with the cationic dye chrysoidine 997(2003)87

Inductively coupled plasma mass spectrometry

see also Mass spectrometry

Elemental speciation by chromatographic separation with inductively coupled plasma mass spectrometry detection (Review) 974(2002)1

Capillary electrophoresis-inductively coupled plasma-mass spectrometry: an attractive complementary technique for elemental speciation analysis (Review) 975(2002)245

Liquid chromatography-inductively coupled plasma mass spectrometry (Review) 1000(2003)457

Industrial chromatography

Preparative liquid chromatography (Review) 965(2002)129

Injection bands

Sub-second liquid chromatographic separations by means of shear-driven chromatography 979(2002)33

Injection methods

see also Large-volume injections and Sample stacking

Optimisation of a programmed split-splitless injector in the gas chromatographic-mass spectrometric determination of organochlorine pesticides 958(2002)17

Analysis of the herbicides paraquat, diquat and difenzoquat in drinking water by micellar electrokinetic chromatography using sweeping and cation selective exhaustive injection 961(2002)65

Rapid screening of pK_a values of pharmaceuticals by pressureassisted capillary electrophoresis combined with short-end injection 979(2002)369

Sensitive and accurate quantitation of monoepoxy fatty acids in thermoxidized oils by gas-liquid chromatography 982(2002)145

Chiral separation of amines with *N*-benzoxycarbonylglycyl-*L*-proline as selector in non-aqueous capillary electrophoresis using methanol and 1,2-dichloroethane in the background electrolyte 984(2003)261

New high-performance cryofocalizer injector for in-tube solidphase microextraction and headspace capillary gas chromatographic applications 985(2003)67

High-sensitivity capillary gel electrophoretic analysis of DNA fragments on an electrophoresis microchip using electrokinetic injection with transient isotachophoretic preconcentration 990(2003)53

Use of short-end injection capillary packed with a glycopeptide antibiotic stationary phase in electrochromatography and capillary liquid chromatography for the enantiomeric separation of hydroxy acids 990(2003)143

Application of electrokinetic supercharging capillary zone electrophoresis to rare-earth ore samples 990(2003)335

Large-volume programmed-temperature vaporiser injection for fast gas chromatography with electron capture and mass specrometric detection of polybrominated diphenyl ethers 991(2003)241

Changes in the order of elution of some organic compounds in high-resolution gas chromatography on polar columns depending on the injection method and water content in the sample 992(2003)199

Optimization of a preparative capillary gas chromatography—mass spectrometry system for the isolation and harvesting of individual polycyclic aromatic hydrocarbons 996(2003)163

Determination of endocrine-disrupting compounds in water samples by on-line solid-phase extraction-programmed-temperature vaporisation-gas chromatography-mass spectrometry 998(2003)41

Matrix effects in (ultra)trace analysis of pesticide residues in food and biotic matrices (Review) 1000(2003)181

Inks

Monitoring and characterization of ink vehicle autoxidation by inverse gas chromatography 969(2002)313

Inlet pressure

Prediction of the plate height of capillary columns operated at any inlet pressure of the carrier gas by using few retention data measured under isobaric conditions 994(2003)103

Inorganic matrix

Thin-layer chromatography—matrix-assisted laser desorption ionisation—time-of-flight mass spectrometry using particle suspension matrices 958(2002)249

Instrumentation

Capillary electrophoresis—electrochemistry microfluidic system for the determination of organic peroxides 952(2002)249

Gas chromatography for in situ analysis of a cometary nucleus. III. Multi-capillary column system for the cometary sampling and composition experiment of the Rosetta lander probe 953(2002)165

Initial study of using a laminar fluid diffusion interface for sample preparation in high-performance liquid chromatography 954(2002)33

Determination of purine and pyrimidine bases in DNA by micellar electrokinetic capillary chromatography with electrochemical detection 954(2002)267

Ion chromatographic system with a novel switching suppression device 956(2002)53

Online coupling of pressurized liquid extraction, solid-phase extraction and high-performance liquid chromatography for automated analysis of proanthocyanidins in malt 958(2002)9

Membrane-assisted solvent extraction of triazines and other semi-volatile contaminants directly coupled to large-volume injection—gas chromatography—mass spectrometric detection 963(2002)27

Simple chamber for temperature-controlled planar chromatography 971(2002)193

Carbon fiber bundle-Au-Hg dual-electrode detection for capillary electrophoresis 971(2002)217

Miniaturization of batch- and flow-type chemiluminescence detectors in capillary electrophoresis 971(2002)255

Column switching-back flushing technique for the analysis of aromatic compounds in gasoline 972(2002)253

Glass nebulizer interface for capillary electrophoresis-Fourier transform infrared spectrometry 976(2002)19

Determination of ethanol in alcoholic beverages by highperformance liquid chromatography—flame ionization detection using pure water as mobile phase 976(2002)387

Sub-second liquid chromatographic separations by means of shear-driven chromatography 979(2002)33

Micromachined capillary cross-connector for high-precision fraction collection 979(2002)105

Voltage-addressable on/off microvalves for high-pressure microchip separations 979(2002)147

Miniaturized membrane-based reversed-phase chromatography and enzyme reactor for protein digestion, peptide separation, and protein identification using electrospray ionization mass spectrometry 979(2002)241

Microcolumns with self-assembled particle frits for proteomics 979(2002)233

Comprehensive two-dimensional gas chromatography of volatile and semi-volatile components using a diaphragm valve-based instrument 983(2003)195

Needle-type concentrator and its application to the determination of pollutants 985(2003)63

Symmetrical (double-speed) static coating for high-resolution gas chromatography column preparation 985(2003)79

In-tube solid-phase microextraction sampler for long-term storage 985(2003)93

Determination of total petroleum hydrocarbons in soil by dynamic on-line supercritical fluid extraction with infrared photometric detection 986(2003)319

Experimental Van Deemter plots of shear-driven liquid chromatographic separations in disposable microchannels 987(2003)39

 $\label{eq:microchannel-assisted} \begin{tabular}{ll} Microchannel-assisted thermal-lens spectrometry for microchip analysis $987(2003)197$ \end{tabular}$

Design of a new, twelve-channel electrophoretic apparatus based on the Gradiflow technology 989(2003)65

Automated microgradient system for capillary electrochromatography 990(2003)3

Integrated moulded polymer electrodes for performing conductivity detection on isotachophoresis microdevices 990(2003)11

Integration of a contactless conductivity detector into a commercial capillary cassette. Detection of inorganic cations and catecholamines 990(2003)45

Free-flow electrophoresis in a microfabricated chamber with a micromodule fraction separator. Continuous separation of proteins 990(2003)169

Zone electrophoresis of proteins on a poly(methyl methacrylate) chip with conductivity detection 990(2003)179

Miniaturised isotachophoretic analysis of inorganic arsenic speciation using a planar polymer chip with integrated conductivity detection 990(2003)325

Microscale solid-phase extraction system for explosives 991(2003)159

Systematic error in automated in-tube solid-phase microextraction 995(2003)1

A microfabricated microconcentrator for sensors and gas chromatography 996(2003)1

Optimization of a preparative capillary gas chromatography—mass spectrometry system for the isolation and harvesting of individual polycyclic aromatic hydrocarbons 996(2003)163

Instrumentation, fast GC

Fast gas chromatography and its use in trace analysis (Review) 1000(2003)199

Instrumentation, LC-MS

Progress in liquid chromatography-mass spectrometry instrumentation and its impact on high-throughput screening (Review) 1000(2003)413

Interaction chromatography

Elution behavior of polyethylene in polar mobile phases on a non-polar sorbent 988(2003)69

Interaction parameter

Practical implications of ionic strength effects on particle retention in thermal field-flow fractionation 984(2003)67

Interconversion energy barrier

Determination of the interconversion energy barrier of enantiomers by separation methods (Review) 1000(2003)779

Interfaces

see also Mass spectrometry

Interfaces, electrophoresis-IR

Glass nebulizer interface for capillary electrophoresis-Fourier transform infrared spectrometry 976(2002)19

Interfaces, electrophoresis-MS

Capillary electrophoresis-inductively coupled plasma-mass spectrometry: an attractive complementary technique for elemental speciation analysis (Review) 975(2002)245

Advantages and limitations of coupling isotachophoresis and comprehensive isotachophoresis-capillary electrophoresis to time-of-flight mass spectrometry 992(2003)169

Interfaces, LC-GC

On-line coupled liquid chromatography—gas chromatography (Review) 1000(2003)357

Interfaces, LC-MS

Immobilized artificial membrane chromatography coupled with atmospheric pressure ionization mass spectrometry 966(2002)81

Atmospheric pressure photoionization liquid chromatographic—mass spectrometric determination of idoxifene and its metabolites in human plasma 970(2002)155

Comparison of separation conditions and ionization methods for the liquid chromatography-mass spectrometric determination of sulfonamides 984(2003)153

Progress in liquid chromatography—mass spectrometry instrumentation and its impact on high-throughput screening (Review) 1000(2003)413

Interfaces, ligand-receptor

Reversed-phase liquid chromatography as a tool in the determination of the hydrophilicity/hydrophobicity of amino acid side-chains at a ligand-receptor interface in the presence of different aqueous environments. I. Effect of varying receptor hydrophobicity 972(2002)45

Reversed-phase liquid chromatography as a tool in the determination of the hydrophilicity/hydrophobicity of amino acid side-chains at a ligand-receptor interface in the presence of different aqueous environments. II. Effect of varying peptide ligand hydrophobicity 972(2002)61

Interfaces, MEKC-MS

On-line micellar electrokinetic chromatography-mass spectrometry: feasibility of direct introduction of non-volatile buffer and surfactant into the electrospray interface (Review) 1000(2003)953

Interlaboratory studies

Rapid determination of polycyclic aromatic hydrocarbons in sewage sludges using microwave-assisted solvent extraction.

Comparison with other extraction methods 999(2003)175

Internal standards

Prediction of internal standards in reversed-phase liquid chromatography. II. Selectivity optimization and internal standard prediction for the quantitation of estradiol and levonorgestrel in a transdermal drug delivery formulation based on the linear solvation energy relationships 954(2002)159

Deferred standards, an on-line qualification, validation and system stability probe for chromatographic assay 958(2002)79

Prediction of internal standards in reversed-phase liquid chromatography. III. Evaluation of an alternative solvation parameter model to correlate and predict the retention of ionizable compounds 982(2002)209

Enflurane as an internal standard in monitoring halogenated volatile anaesthetics by headspace gas chromatography-mass spectrometry 985(2003)259

Quantitation of formate by solid-phase microextraction and gas chromatography-mass spectrometry utilizing a [¹³C]formate internal standard 986(2003)313

International Conference on Harmonization

Validation of high-performance liquid chromatography methods for pharmaceutical analysis. Understanding the differences and similarities between validation requirements of the US Food and Drug Administration, the US Pharmacopeia and the International Conference on Harmonization 987(2003)57

Interquartile range

How to estimate moments and quantiles of environmental data sets with non-detected observations? A case study on volatile organic compounds in marine water samples 975(2002)123

Intraparticle convection

Novel general expressions that describe the behavior of the height equivalent to a theoretical plate in chromatographic systems involving electrically-driven and pressure-driven flows 979(2002)447

Intraparticle diffusion

Novel general expressions that describe the behavior of the height equivalent to a theoretical plate in chromatographic systems involving electrically-driven and pressure-driven flows 979(2002)447

In-tube solid-phase microextraction

Bio-compatible in-tube solid-phase microextraction capillary for the direct extraction and high-performance liquid chromatographic determination of drugs in human serum 963(2002)325

Systematic error in automated in-tube solid-phase microextraction 995(2003)1

Inverse gas chromatography

see also Special Issue Index

Inverse gas chromatographic measurement of solubility parameters in liquid crystalline systems 964(2002)199

Use of inverse gas chromatography to determine thermodynamic parameters of aroma-starch interactions 969(2002)9

New approach to characterise physicochemical properties of solid substrates by inverse gas chromatography at infinite dilution. I. Some new methods to determine the surface areas of some molecules adsorbed on solid surfaces 969(2002)17

New approach to characterise physicochemical properties of solid substrates by inverse gas chromatography at infinite dilution. II. Study of the transition temperatures of poly(methyl methacrylate) at various tacticities and of poly(methyl methacrylate) adsorbed on alumina and silica 969(2002)27

The application of molecular modelling to the interpretation of inverse gas chromatography data 969(2002)49

Effect of moisture on the surface free energy and acid-base properties of mineral oxides 969(2002)59

Acid-base and surface energy characterization of grafted polyethylene using inverse gas chromatography 969(2002)73

Experimental adsorption isotherms based on inverse gas chromatography 969(2002)81

Coupling of inverse gas chromatography at infinite dilution (IGC-ID) with a controlled modification of a solid surface 969(2002)93

Effect of emulsifiers on surface properties of sucrose by inverse gas chromatography 969(2002)97

Use of inverse gas chromatography to characterize cotton fabrics and their interactions with fragrance molecules at controlled relative humidity 969(2002)103

Characterisation of the surface Lewis acid-base properties of poly(butylene terephthalate) by inverse gas chromatography 969(2002)111

Characterisation of the surface Lewis acid-base properties of the components of pigmented, impact-modified, bisphenol A polycarbonate-poly(butylene terephthalate) blends by inverse gas chromatography-phase separation and phase preferences 969(2002)119

Influence of poly(methyl methacrylate) impregnation ratio on the surface properties of fumed silica and on the glassy temperature of poly(methyl methacrylate) using inverse gas chromatographic analysis 969(2002)143

Surface heterogeneity and surface area from linear inverse gas chromatography. Application to glass fibers 969(2002)153

Inverse gas chromatography and other chromatographic techniques in the examination of engine oils 969(2002)181

Characterization of crude oils by inverse gas chromatography 969(2002)207

Surface energy characteristics of toner particles by automated inverse gas chromatography 969(2002)215

Surface and thermodynamic characterization of conducting polymers by inverse gas chromatography. I. Polyaniline 969(2002)229

Polymer–solvent interaction parameters in polymer solutions at high polymer concentrations 969(2002)245

Characterization of the interactions in polymer-filler systems by inverse gas chromatography 969(2002)255

Characterisation of cement pastes by inverse gas chromatography 969(2002)261

Adsorption of poly(methyl methacrylate) and poly(vinyl chloride) blends onto polypyrrole. Study by X-ray photoelectron spectroscopy, time-of-flight static secondary ion mass spectroscopy, and inverse gas chromatography 969(2002)273

Study of the miscibility of poly(styrene-co-4-vinylbenzoic acid) with poly(ethyl methacrylate) or with poly[ethyl methacrylate-co-(2-*N*,*N*-dimethylaminoethyl) methacrylate] by inverse gas chromatography 969(2002)287

Inverse gas chromatography study on partially esterified paper fiber 969(2002)301

Monitoring and characterization of ink vehicle autoxidation by inverse gas chromatography 969(2002)313

Determination of surface heterogeneity profiles on graphite by finite concentration inverse gas chromatography 969(2002)323

Effects of dehydration on the apolar surface energetics of inorganic paper fillers 972(2002)241

Application of inverse gas chromatography to the examination of annealing processes of semi-synthetic base oils 982(2002)245

Time-resolved determination of surface diffusion coefficients for physically adsorbed or chemisorbed species on heterogeneous surfaces, by inverse gas chromatography 983(2003)177

Thermodynamic study of two different chewing-gum bases by inverse gas chromatography 996(2003)189

Inverse liquid chromatography

Characterisation of the chromatographic properties of a silica– polypyrrole composite stationary phase by inverse liquid chromatography 969(2002)167

Determination of the porosities of monolithic columns by inverse size-exclusion chromatography 975(2002)275

Ion chromatography

see also Special Issue Index

Recent advances in ion chromatography suppressor improve anion separation and detection 956(2002)15

The membrane suppressor: a historical perspective (Review) 956(2002)43

New suppressor technology improves trace level anion analysis with carbonate-hydrogencarbonate mobile phases 956(2002)47

Ion chromatographic system with a novel switching suppression device 956(2002)53

New conductivity detection response equation for anions eluted with fully and partially ionised eluents in non-suppressed ion chromatography 956(2002)59

Determination of total acidity and of divalent cations by ion chromatography with *n*-hexadecylphosphocholine as the stationary phase 956(2002)139

Non-linear calibration functions in ion chromatography with suppressed conductivity detection using hydroxide eluents 957(2002)99

Mechanistic studies on the separation of cations in zwitterionic ion chromatography 997(2003)13

Evolution of ion-exchange: from Moses to the Manhattan Project to Modern Times (Review) 1000(2003)711

Developments in suppressor technology for inorganic ion analysis by ion chromatography using conductivity detection (Review) 1000(2003)725

Ion cyclotron resonance

Mapping of protein:protein contact surfaces by hydrogen/deuterium exchange, followed by on-line high-performance liquid chromatography-electrospray ionization fourier-transform ion-cyclotron-resonance mass analysis 982(2002)85

Ion-exchange chromatography

Erratum to "Characterization of enthalpic events in overloaded ion-exchange chromatography". [J. Chromatogr. A, 944 (2002) 61–68] 952(2002)301

Column selectivity in reversed-phase liquid chromatography. III. The physico-chemical basis of selectivity 961(2002)217

Chromatography of microbial cells using continuous supermacroporous affinity and ion-exchange columns 977(2002)27

Analysis and critical comparison of the reversed-phase and ionexchange contributions to retention on polybutadiene coated zirconia and octadecyl silane bonded silica phases 996(2003)13

Ion exchangers

see also Anion exchangers, Cation exchangers and Stationary phases

Comparison of the acidity of residual silanol groups in several liquid chromatography columns 986(2003)33

Titanium(IV) tungstosilicate and titanium(IV) tungstophosphate: two new inorganic ion exchangers 987(2003)147

Selectivity behaviour of a bonded phosphonate-carboxylate polymeric ion exchanger for metal cations with varying eluent compositions 997(2003)3

Environmental applications of a cryptand adjustable-capacity anion-exchange separator 997(2003)33

Evolution of ion-exchange: from Moses to the Manhattan Project to Modern Times (Review) 1000(2003)711

Ion-exclusion chromatography

Vacancy ion-exclusion chromatography of carboxylic acids on a weakly acidic cation-exchange resin 956(2002)209

Enantioselective ion-exclusion chromatography on teicoplanin aglycone and (+)-(18-crown-6)-2,3,11,12-tetracarboxylic acid stationary phases 983(2003)91

Ionic liquids

Application of 1-alkyl-3-methylimidazolium-based ionic liquids in non-aqueous capillary electrophoresis 979(2002)27

1,3-Dialkylimidazolium-based room-temperature ionic liquids as background electrolyte and coating material in aqueous capillary electrophoresis 985(2003)447

Reversed-phase liquid chromatographic method for the determination of selected room-temperature ionic liquid cations 993(2003)173

Ionic strength

Study on protein adsorption kinetics to a dye-ligand adsorbent by the pore diffusion model 964(2002)35

Retention of alkali, alkaline earth and transition metals on an itaconic acid cation-exchange column. Eluent pH, ionic strength and temperature effects upon selectivity 964(2002)113

Capillary electrophoresis in aqueous-organic media. Ionic strength effects and limitations of the Hubbard-Onsager dielectric friction model 964(2002)213

Practical implications of ionic strength effects on particle retention in thermal field-flow fractionation 984(2003)67

Determination of the absolute mobility and the equivalent ionic conductivity of NpO_2^+ at 25 °C and at infinite dilution by capillary electrophoresis-inductively coupled plasma-mass spectrometry 994(2003)199

Ionic surfactants

Binding of ionic surfactants to charged polymer brushes grafted onto porous substrates 954(2002)89

Ion interaction chromatography

Extended thermodynamic approach to ion interaction chromatography: a thorough comparison with the electrostatic approach, and further quantitative validation 958(2002)51

Ion-ion interactions

Potassium and sodium chloride ion pairs are presumed to constitute a complex during elution from a Sephadex G-15 column with sodium phosphate buffer 987(2003)49

Ionization constants

Evaluation of chromatographic versus electrophoretic behaviour of a series of therapeutical peptide hormones 985(2003)411

Ion-pairing reagents

A comparative study of commercial liquid chromatographic detectors for the analysis of underivatized amino acids 961(2002)9

Capillary liquid chromatographic-high-resolution mass spectrometric analysis of ribonucleotides 976(2002)135

On-line sample preconcentration in micellar electrokinetic chromatography using ion-pair reagents 979(2002)131

High-performance ion-pair chromatography method for simultaneous analysis of alliin, deoxyalliin, allicin and dipeptide precursors in garlic products using multiple mass spectrometry and UV detection 991(2003)69

Isoelectric focusing

Investigations on factors that influence the moving neutralization reaction boundary method for capillary electrophoresis and isoelectric focusing 952(2002)29

Capillary electrophoretic separations of proteins using carrier ampholytes 959(2002)289

Use of full-column imaging capillary isoelectric focusing for the rapid determination of the operating conditions in the preparative-scale continuous free-flow isoelectric focusing separation of enantiomers 960(2002)241

One-step capillary isoelectric focusing of the proteins in cerebrospinal fluid and serum of patients with neurological disorders 961(2002)147

Improved capillary isoelectric focusing method for recombinant erythropoietin analysis 968(2002)221

Effect of feed zone width on product purity in preparative-scale, continuous free-flow isoelectric focusing separation of enantiomers 979(2002)123

Preparative-scale isoelectric trapping separations using a modified Gradiflow unit 979(2002)155

Extension of separation range in capillary isoelectric focusing for resolving highly basic biomolecules 979(2002)271

Preparative-scale isoelectric trapping enantiomer separations 989(2003)73

Isoelectric point

Extension of separation range in capillary isoelectric focusing for resolving highly basic biomolecules 979(2002)271

Isoelectric trapping

Preparative-scale isoelectric trapping separations using a modified Gradiflow unit 979(2002)155

Preparative-scale isoelectric trapping enantiomer separations 989(2003)73

Isoenantioselective temperature

Practice and theory of enantioselective complexation gas chromatography (Review) 965(2002)315

Isotachophoresis

Capillary electrophoretic separations of proteins using carrier ampholytes 959(2002)289

Determination of organic acids in tobacco by capillary isotachophoresis 988(2003)161

Integrated moulded polymer electrodes for performing conductivity detection on isotachophoresis microdevices 990(2003)11

High-sensitivity capillary gel electrophoretic analysis of DNA fragments on an electrophoresis microchip using electrokinetic injection with transient isotachophoretic preconcentration 990(2003)53

Analysis of water extracts from airborne dust samples by capillary isotachophoresis 990(2003)303

Miniaturised isotachophoretic analysis of inorganic arsenic speciation using a planar polymer chip with integrated conductivity detection 990(2003)325

Advantages and limitations of coupling isotachophoresis and comprehensive isotachophoresis-capillary electrophoresis to time-of-flight mass spectrometry 992(2003)169

Isotachophoresis-capillary electrophoresis

Specific analyte-electrolyte additive interaction in transient isotachophoresis-capillary electrophoresis 993(2003)205

Isotachophoresis–capillary electrophoresis, comprehensive Advantages and limitations of coupling isotachophoresis and comprehensive isotachophoresis–capillary electrophoresis to

time-of-flight mass spectrometry 992(2003)169 Isotachophoresis-capillary zone electrophoresis

On-line coupling of capillary isotachophoresis and capillary zone electrophoresis for the determination of flavonoids in methanolic extracts of *Hypericum perforatum* leaves or flowers 958(2002)261

Isotachophoresis-zone electrophoresis

Sample pre-concentration by isotachophoresis in microfluidic devices 979(2002)69

Isotherm modeling

Comparison of the adsorption equilibrium of a few low-molecular mass compounds on a monolithic and a packed column in reversed-phase liquid chromatograph 978(2002)81

Numerical determination of the competitive isotherm of enantiomers 986(2003)207

Isotope dilution mass spectrometry

Liquid chromatography-electrospray ionization isotope dilution mass spectrometry analysis of paraquat and diquat using conventional and multilayer solid-phase extraction cartridges 958(2002)25

Isotope ratio

Separation of vanadium isotopes by ion-exchange chromatography 989(2003)175

Iterative subtraction

Comparison of methods for characterization of reversed-phase liquid chromatographic selectivity 965(2002)301



Jojoba seed meal

Simultaneous determination of carbohydrates and simmondsins in jojoba seed meal (*Simmondsia chinensis*) by gas chromatography 977(2002)257



Kinetic studies

Kinetic study of the polymerization of α -amino acid N-carboxyanhydrides in aqueous solution using capillary electrophoresis 952(2002)239

Adsorption kinetics of β -lactoglobulin on a polyclonal immunochromatographic support 953(2002)17

Application of the general rate model and the generalized Maxwell–Stefan equation to the study of the mass transfer kinetics of a pair of enantiomers 962(2002)57

Study on protein adsorption kinetics to a dye-ligand adsorbent by the pore diffusion model 964(2002)35

Acoustic field assisted demixing of aqueous two-phase systems 977(2002)163

Study of the mass transfer kinetics in a monolithic column 983(2003)51

Kinetic study of angiotensin converting enzyme activity by capillary electrophoresis after in-line reaction at the capillary inlet 986(2003)303

Thermodynamics and kinetics of solute transfer in reversedphase liquid chromatography 987(2003)3

Development and characterization of an immobilized enzyme reactor based on glyceraldehyde-3-phosphate dehydrogenase for on-line enzymatic studies 987(2003)331

Influence of the particle porosity on chromatographic band profiles 989(2003)207

Physico-chemical approach to study organotin sorption desorption during solid-phase microextraction 999(2003)61

Kraft pulp

Identification and confirmation of traces of chlorinated fatty acids in fish downstream of bleached kraft pulp mills by gas chromatography with halogen-specific detection 994(2003)137

L

Lachrymatory factor

Aroma analysis of fresh and preserved onions and leek by dual solid-phase microextraction-liquid extraction and gas chromatography-mass spectrometry 963(2002)89

Laminar fluid diffusion interface

Initial study of using a laminar fluid diffusion interface for sample preparation in high-performance liquid chromatography 954(2002)33

Landfill leachates

Determination of phenols in landfill leachate-contaminated groundwaters by solid-phase extraction 972(2002)175

Direct determination of chlorophenols in landfill leachates by solid-phase micro-extraction-gas chromatography-mass spectrometry 975(2002)267

Large-volume injections

see also Injection methods

Optimisation of a programmed split–splitless injector in the gas chromatographic–mass spectrometric determination of organochlorine pesticides 958(2002)17

Membrane-assisted solvent extraction of triazines and other semi-volatile contaminants directly coupled to large-volume injection—gas chromatography—mass spectrometric detection 963(2002)27

Role of the retaining precolumn in large-volume on-column injections of volatiles to gas chromatography 975(2002)95

Determination of rotenone in river water utilizing packed capillary column switching liquid chromatography with UV and time-of-flight mass spectrometric detection 983(2003)43

Determination of organophosphate esters in air samples by dynamic sonication-assisted solvent extraction coupled on-line with large-volume injection gas chromatography utilizing a programmed-temperature vaporizer 993(2003)103

Analysis of food colorants by capillary electrophoresis with large-volume sample stacking 995(2003)29

Analysis of naphthalenesulfonate compounds by cyclodextrinmediated capillary electrophoresis with sample stacking 996(2003)205

Laser-based non-fluorescence detection

Laser-based non-fluorescence detection techniques for liquid separation systems (Review) 971(2002)1

Latex

Determination of *N*-nitrosamines in latex by sequential supercritical fluid extraction and derivatization 976(2002)301

Lavandula

Comparison of different extraction methods for the analysis of fragrances from Lavandula species by gas chromatography-mass spectrometry 982(2002)31

Lavender

Characterisation of lavender essential oils by using gas chromatography—mass spectrometry with correlation of linear retention indices and comparison with comprehensive two-dimensional gas chromatography 970(2002)225

Least-squares analysis

Evaluation of calibration data in capillary electrophoresis using artificial neural networks to increase precision of analysis 979(2002)59

Leguminosae

On-line identification of the antifungal constituents of *Erythrina vogelii* by liquid chromatography with tandem mass spectrometry, ultraviolet absorbance detection and nuclear magnetic resonance spectrometry combined with liquid chromatographic micro-fractionation 974(2002)123

Lewis acid-base interactions

Mixed-mode reversed-phase and ion-exchange separations of cationic analytes on polybutadiene-coated zirconia 968(2002)17

Libraries, MS

A mass spectral library based on chemical ionization and collision-induced dissociation 974(2002)161

Rapid identification and quantitation of compounds with forensic interest using fast liquid chromatography-ion trap mass spectrometry and library searching 994(2003)93

Lichens

Chromatography and electrophoresis in separation and characterization of polysaccharides from lichens (Review) 967(2002)163

Ligand exchange

New ligand exchange chiral stationary phase for the liquid chromatographic resolution of α - and β -amino acids 992(2003)47

Enantioselective ligand exchange in modern separation techniques (Review) 1000(2003)891

Ligand-receptor interfaces

Reversed-phase liquid chromatography as a tool in the determination of the hydrophilicity/hydrophobicity of amino acid side-chains at a ligand-receptor interface in the presence of different aqueous environments. I. Effect of varying receptor hydrophobicity 972(2002)45

Reversed-phase liquid chromatography as a tool in the determination of the hydrophilicity/hydrophobicity of amino acid side-chains at a ligand-receptor interface in the presence of different aqueous environments. II. Effect of varying peptide ligand hydrophobicity 972(2002)61

Light scattering

Characterization of the refolding and reassembly of an integral membrane protein OmpF porin by low-angle laser light scattering photometry coupled with high-performance gel chromatography 961(2002)137

Ligninolytic fungi

Study of fungal degradation products of polycyclic aromatic hydrocarbons using gas chromatography with ion trap mass spectrometry detection 974(2002)213

Linear discriminant analysis

Comparative analysis of different plant oils by high-performance liquid chromatography-atmospheric pressure chemical ionization mass spectrometry 976(2002)255

Linear free energy relationships

Comparison of methods for characterization of reversed-phase liquid chromatographic selectivity 965(2002)301

Linear retention indices

Characterisation of lavender essential oils by using gas chromatography—mass spectrometry with correlation of linear retention indices and comparison with comprehensive two-dimensional gas chromatography 970(2002)225

Linear solvation energy relationships

Prediction of internal standards in reversed-phase liquid chromatography. II. Selectivity optimization and internal standard prediction for the quantitation of estradiol and levonorgestrel in a transdermal drug delivery formulation based on the linear solvation energy relationships 954(2002)159

Effect of molecular interactions on retention and selectivity in reversed-phase liquid chromatography 960(2002)69

Rapid estimation of octanol-water partition coefficients using synthesized vesicles in electrokinetic chromatography 962(2002)207

Comparative study of the linear solvation energy relationship, linear solvent strength theory, and typical-conditions model for retention prediction in reversed-phase liquid chromatography 965(2002)3

Comparison of methods for characterization of reversed-phase liquid chromatographic selectivity 965(2002)301

Characterization of crude oils by inverse gas chromatography 969(2002)207

Characterization of solvation properties of lipid bilayer membranes in liposome electrokinetic chromatography 973(2002)167

Prediction of chromatographic retention, pK_a values and optimization of the separation of polyphenolic acids in strawberries 975(2002)299

Quantitative structure–retention relationships in comparative studies of behavior of stationary phases under high-performance liquid chromatography and capillary electrochromatography conditions 977(2002)193

Prediction of internal standards in reversed-phase liquid chromatography. III. Evaluation of an alternative solvation parameter model to correlate and predict the retention of ionizable compounds 982(2002)209

Using temperature gradient gas chromatography to determine or predict vapor pressures and linear solvation energy relationship parameters of highly boiling organic compounds 988(2003)117

Linear solvent strength

Combination of linear solvent strength model and quantitative structure–retention relationships as a comprehensive procedure of approximate prediction of retention in gradient liquid chromatography 962(2002)41

Comparative study of the linear solvation energy relationship, linear solvent strength theory, and typical-conditions model for retention prediction in reversed-phase liquid chromatography 965(2002)3

Determination of minor conformational changes of a doxorubicin–peptide conjugate under chromatographic conditions 983(2003)73

Predictive approaches to gradient retention based on analyte structural descriptors from calculation chemistry 987(2003)29

Linum usitatissimum

On-line liquid-chromatography-nuclear magnetic resonance spectroscopy-mass spectrometry coupling for the separation and characterization of secoisolariciresinol diglucoside isomers in flaxseed 972(2002)195

Lipid bilayer

Characterization of solvation properties of lipid bilayer membranes in liposome electrokinetic chromatography 973(2002)167

Lipophilicity

see also Hydrophobicity

Lipophilicity of a series of 1,2-benzisothiazol-3(2H)-ones determined by reversed-phase thin-layer chromatography 952(2002)295

Lipophilicity and pK_a estimates from gradient high-performance liquid chromatography 965(2002)117

Effect of emulsifiers on surface properties of sucrose by inverse gas chromatography 969(2002)97

Determination of the enantiomeric purity of nucleoside analogs related to d4T and acyclovir, new potential antiviral agents, using liquid chromatography on cellulose chiral stationary phases 972(2002)211

Reversed-phase liquid chromatography of biologically active lipophilic chelators. II. Improvement of chromatographic performance and selected applications in biochemical analysis 987(2003)169

Lipophilicity of vinpocetine and related compounds characterized by reversed-phase thin-layer chromatography 996(2003)195

Liposome electrokinetic chromatography

Characterization of solvation properties of lipid bilayer membranes in liposome electrokinetic chromatography 973(2002)167

Liquid chromatography

New equations describing the combined effect of pH and organic modifier concentration on the retention in reversed-phase liquid chromatography 971(2002)47

Chromatographic shape selectivity with carbon dioxide—acetonitrile mobile phases. Effect of mobile phase composition and density 971(2002)61

Quantification of the sensitivity increase of a micro-highperformance liquid chromatography—electrospray ionization mass spectrometry system with decreasing column diameter 976(2002)11

Elevated-temperature ultrahigh-pressure liquid chromatography using very small polybutadiene-coated nonporous zirconia particles 983(2003)83

Thermodynamics and kinetics of solute transfer in reversedphase liquid chromatography 987(2003)3

Hyphenation and hypernation. The practice and prospects of multiple hyphenation (Review) 1000(2003)325

Liquid chromatography, reversed-phase

New model of surface diffusion in reversed-phase liquid chromatography 961(2002)23

Analysis and critical comparison of the reversed-phase and ionexchange contributions to retention on polybutadiene coated zirconia and octadecyl silane bonded silica phases 996(2003)13

Liquid chromatography, two-dimensional

Liquid exclusion—adsorption chromatography: a new technique for isocratic separation of non-ionic surfactants. V. Two-dimensional separation of fatty acid polyglycol ethers 953(2002)89

Development of a two-dimensional liquid chromatography system with trapping and sample enrichment capabilities 968(2002)41

Two dimensional reversed-phase–reversed-phase separations. Isomeric separations incorporating C_{18} and carbon clad zirconia stationary phases 975(2002)285

Liquid chromatography, comprehensive two-dimensional

Theoretical study of incomplete sampling of the first dimension in comprehensive two-dimensional chromatography 962(2002)21

Comprehensive two-dimensional liquid chromatography of polymers (Review) 1000(2003)693

Liquid chromatography-capillary electrophoresis

Two dimensional mapping of cancer cell extracts by liquid chromatography-capillary electrophoresis with ultraviolet absorbance detection 979(2002)81

Liquid chromatography-gas chromatography

On-line coupled liquid chromatography—gas chromatography (Review) 1000(2003)357

Liquid chromatography×gas chromatography, comprehensive two-dimensional

Comprehensive two-dimensional liquid chromatography×gas chromatography: evaluation of the applicability for the analysis of edible oils and fats (Review) 1000(2003)385

Liquid chromatography-mass spectrometry

see also Mass spectrometry

Progress in liquid chromatography—mass spectrometry instrumentation and its impact on high-throughput screening (Review) 1000(2003)413

Liquid chromatography—(tandem) mass spectrometry of selected emerging pollutants (steroid sex hormones, drugs and alkylphenolic surfactants) in the aquatic environment (Review) 1000(2003)503

Strategies for the liquid chromatographic-mass spectrometric analysis of non-polar compounds (Review) 1000(2003)549

Contributions of liquid chromatography-mass spectrometry to "highlights" of biomedical research (Review) 1000(2003)567

Recent liquid chromatographic—(tandem) mass spectrometric applications in proteomics (Review) 1000(2003)589

The potential of organic (electrospray- and atmospheric pressure chemical ionisation) mass spectrometric techniques coupled to liquid-phase separation for speciation analysis (Review) 1000(2003)841

Liquid chromatography-NMR spectroscopy-mass spectrometry

On-line liquid-chromatography-nuclear magnetic resonance spectroscopy-mass spectrometry coupling for the separation and characterization of secoisolariciresinol diglucoside isomers in flaxseed 972(2002)195

Liquid chromatography under critical conditions

Liquid exclusion-adsorption chromatography, a new technique for isocratic separation of nonionic surfactants. IV. Two-dimensional separation of fatty alcohol ethoxylates with focusing of fractions 952(2002)149

Liquid exclusion-adsorption chromatography: a new technique for isocratic separation of non-ionic surfactants. V. Two-dimensional separation of fatty acid polyglycol ethers 953(2002)89

Liquid crystalline polymers

Inverse gas chromatographic measurement of solubility parameters in liquid crystalline systems 964(2002)199

Applications of inverse gas chromatography in the study of liquid crystalline stationary phases 969(2002)193

Liquid crystals

Effects of temperature and flow regulated carbon dioxide cooling in longitudinally modulated cryogenic systems for comprehensive two-dimensional gas chromatography 962(2002)127

Synthesis, characterization and liquid chromatographic behaviours of a new chemically bonded liquid crystal 971(2002)87

Liquid exclusion-adsorption chromatography

Liquid exclusion-adsorption chromatography, a new technique for isocratic separation of nonionic surfactants. IV. Two-dimensional separation of fatty alcohol ethoxylates with focusing of fractions 952(2002)149

Liquid exclusion-adsorption chromatography: a new technique for isocratic separation of non-ionic surfactants. V. Two-dimensional separation of fatty acid polyglycol ethers 953(2002)89

Liquid-liquid extraction

Recovery, enrichment and selectivity in liquid-phase microextraction. Comparison with conventional liquid-liquid extraction 963(2002)3

Application of liquid chromatography-electrospray ionization tandem mass spectrometry to the detection of 10 sulfonamides in honey 977(2002)77

Determination of pesticides in waters by capillary gas chromatography with atomic emission detection 978(2002)249

Liquid-liquid microextraction

Liquid-liquid-liquid microextraction of aromatic amines from water samples combined with high-performance liquid chromatography 963(2002)231

Analysis of aromatic amines in water samples by liquid—liquid—liquid microextraction with hollow fibers and high-performance liquid chromatography 963(2002)239

Analysis of phenoxy herbicides in bovine milk by means of liquid-liquid-liquid microextraction with a hollow-fiber membrane 963(2002)335

Liquid membrane electrodes

Potentiometric detection of exogenic beta-adrenergic substances in liquid chromatography 973(2002)85

Liquid-phase microextraction

Recovery, enrichment and selectivity in liquid-phase microextraction. Comparison with conventional liquid-liquid extraction 963(2002)3

Liquid-phase microextraction combined with capillary electrophoresis, a promising tool for the determination of chiral drugs in biological matrices 963(2002)303

Determination of organochlorine pesticides in seawater using liquid-phase hollow fibre membrane microextraction and gas chromatography-mass spectrometry 968(2002)191

Application of static and dynamic liquid-phase microextraction in the determination of polycyclic aromatic hydrocarbons 976(2002)377

Combination of liquid-phase microextraction and on-column stacking for trace analysis of amino alcohols by capillary electrophoresis 979(2002)163

Automated hollow fiber-protected dynamic liquid-phase microextraction of pesticides for gas chromatography-mass spectrometric analysis 985(2003)107

Liquid-phase microextraction of hydrophilic drugs by carrier-mediated transport 998(2003)61

Hollow-fibre liquid-phase microextraction of phthalate esters from water 999(2003)145

Liquid-solid chromatography

Mechanistic molecular model of liquid–solid chromatography. Retention–eluent composition relationships (Review) 965(2002)109

Liquid-solid fluidization

Fluidisation and dispersion behaviour of small high density pellicular expanded bed adsorbents 964(2002)77

Longitudinal dispersion

Modelling counter-current chromatography: a chemical engineering perspective 973(2002)39

Longitudinal displacement

Relations between the separation coefficient, longitudinal displacement and peak broadening in size exclusion chromatography of macromolecules 978(2002)109



Macroaffinity ligand-facilitated three-phase partitioning

Separation of enzymes by sequential macroaffinity ligandfacilitated three-phase partitioning 995(2003)127

Macromolecular probes

Evaluation of high-performance liquid chromatography column retentivity using macromolecular probes. II. Silanophilic interactivity traced by highly polar polymers 976(2002)27

Magnetophoresis

Capillary magnetophoresis of human blood cells and their magnetophoretic trapping in a flow system 961(2002)3

Malolactic fermentation

Different multidimensional chromatographic approaches applied to the study of wine malolactic fermentation 995(2003)161

Manure

Quantification of veterinary antibiotics (sulfonamides and trimethoprim) in animal manure by liquid chromatography-mass spectrometry 952(2002)111

Marine laboratories

Developments in the use of chromatographic techniques in marine laboratories for the determination of halogenated contaminants and polycyclic aromatic hydrocarbons (Review) 1000(2003)223

Marine sediments

see also Sediments

Determination of butyltin compounds in surface sediments from the São Paulo State coast (Brazil) by gas chromatography pulsed flame photometric detection 985(2003)205

Martian samples

Solvent extraction of organic molecules of exobiological interest for in situ analysis of the Martian soil 999(2003)165

Martin, A.J.P.

A.J.P. Martin (1910–2002) (Obituary) 972(2002)131

Mass spectrometry

see also Capillary electrophoresis-mass spectrometry, Gas chromatography-mass spectrometry, Inductively coupled plasma mass spectrometry, Interfaces, Liquid chromatography-mass spectrometry, Matrix-assisted laser desorption ionization mass spectrometry, Tandem mass spectrometry, Special Issue Index and specific ionization techniques

Determination of alkyl benzyl and dialkyl dimethyl quaternary ammonium biocides in occupational hygiene and environmental media by liquid chromatography with electrospray ionisation mass spectrometry and tandem mass spectrometry 952(2002)165

Evaluation of liquid chromatography-negative ion electrospray mass spectrometry for the determination of selected resin acids in river water 952(2002)289

Sensitive method for the detection of 22 benzodiazepines by gas chromatography-ion trap tandem mass spectrometry 954(2002)235

Liquid chromatography-electrospray ionization isotope dilution mass spectrometry analysis of paraquat and diquat using conventional and multilayer solid-phase extraction cartridges 958(2002)25

Mass spectrometric determination of ergosterol in a prairie natural wetland 958(2002)149

Thin-layer chromatography—matrix-assisted laser desorption ionisation—time-of-flight mass spectrometry using particle suspension matrices 958(2002)249

Residue analysis of macrolides in poultry muscle by liquid chromatography–electrospray mass spectrometry 959(2002)131

A comparative study of commercial liquid chromatographic detectors for the analysis of underivatized amino acids 961(2002)9

Developing strategies for isolation of minor impurities with mass spectrometry-directed fractionation 961(2002)131

High-performance liquid chromatography—mass spectrometry and electron-capture dissociation tandem mass spectrometry of osteocalcin. Determination of γ -carboxyglutamic acid residues 962(2002)95

Universal screening method for the determination of US Environmental Protection Agency phenols at the lower ng 1⁻¹ level in water samples by on-line solid-phase extraction-high-performance liquid chromatography-atmospheric pressure chemical ionization mass spectrometry within a single run 963(2002)149

Adsorption of poly(methyl methacrylate) and poly(vinyl chloride) blends onto polypyrrole. Study by X-ray photoelectron spectroscopy, time-of-flight static secondary ion mass spectroscopy, and inverse gas chromatography 969(2002)273

Mass spectrometry: innovation and application (Foreword) 970(2002)1

Recent advances in the application of mass spectrometry in food-related analysis (Review) 970(2002)3

Characterisation of botulinum toxins type A and B, by matrixassisted laser desorption ionisation and electrospray mass spectrometry 970(2002)95

Developing strategies for isolation of minor impurities with mass spectrometry-directed fractionation 970(2002)131

Comparison between liquid chromatography–UV detection and liquid chromatography–mass spectrometry for the characterization of impurities and/or degradants present in trimethoprim tablets 970(2002)141

Surface and wastewater quality monitoring: combination of liquid chromatography with (geno)toxicity detection, diode array detection and tandem mass spectrometry for identification of pollutants 970(2002)167

Evaluation of a high-resolution time-of-flight mass spectrometer for the gas chromatographic determination of selected environmental contaminants 970(2002)213

Complete characterisation of lanolin steryl esters by sub-ambient pressure gas chromatography—mass spectrometry in the electron impact and chemical ionisation modes 970(2002)249

Recent advances in the mass spectrometric analysis related to endocrine disrupting compounds in aquatic environmental samples (Review) 974(2002)23

Fast liquid chromatography-electrochemistry-mass spectrometry of ferrocenecarboxylic acid esters 974(2002)103

Nanoscale liquid chromatography and capillary electrophoresis coupled to electrospray mass spectrometry for the detection of amyloid- β peptide related to Alzheimer's disease 974(2002)135

Oligonucleotide covalent modifications by estrogen quinones evidenced by use of liquid chromatography coupled to negative electrospray ionization tandem mass spectrometry 976(2002)123

Analysis of anthraquinones in *Rubia tinctorum* L. by liquid chromatography coupled with diode-array UV and mass spectrometric detection 978(2002)119

Mapping of protein:protein contact surfaces by hydrogen/deuterium exchange, followed by on-line high-performance liquid chromatography-electrospray ionization fourier-transform ion-cyclotron-resonance mass analysis 982(2002)85

Liquid chromatography with atmospheric pressure chemical ionization and electrospray ionization mass spectrometry of flavonoids with triple-quadrupole and ion-trap instruments 984(2003)45

Structural characterization by both positive and negative electrospray ion trap mass spectrometry of oligogalacturonates purified by high-performance anion-exchange chromatography 984(2003)185

Adduct formation in electrospray ionization mass spectrometry. II. Benzoic acid derivatives 985(2003)531

Analysis of low-molecular-mass organic acids using capillary zone electrophoresis-electrospray ionization mass spectrometry 988(2003)127

Advantages and limitations of coupling isotachophoresis and comprehensive isotachophoresis—capillary electrophoresis to time-of-flight mass spectrometry 992(2003)169

Modern developments in gas chromatography-mass spectrometry-based environmental analysis (Review) 1000(2003)125

Practical approaches to fast gas chromatography-mass spectrometry (Review) 1000(2003)153

Derivatisation reactions in the chromatographic analysis of chemical warfare agents and their degradation products (Review) 1000(2003)253

Hyphenation and hypernation. The practice and prospects of multiple hyphenation (Review) 1000(2003)325

Progress in liquid chromatography-mass spectrometry instrumentation and its impact on high-throughput screening (Review) 1000(2003)413

Liquid chromatography with ultraviolet absorbance–mass spectrometric detection and with nuclear magnetic resonance spectrometry: a powerful combination for the on-line structural investigation of plant metabolites (Review) 1000(2003)437

The role of chromatography in the hunt for red tide toxins (Review) 1000(2003)527

Strategies for the liquid chromatographic-mass spectrometric analysis of non-polar compounds (Review) 1000(2003)549

Analysis of food proteins and peptides by chromatography and mass spectrometry (Review) 1000(2003)609

The potential of organic (electrospray- and atmospheric pressure chemical ionisation) mass spectrometric techniques coupled to liquid-phase separation for speciation analysis (Review) 1000(2003)841

Mass spectrometry compatibility

Mass spectrometry-compatible ICH (International Conference on Harmonization) impurity analysis with a high-pH mobile phase. Advantages and pitfalls 987(2003)283

Mass transfer

Expressions for the C-term in the presence of pore flow 965(2002)75

Protein adsorption on novel acrylamido-based polymeric ionexchangers. IV. Effects of protein size on adsorption capacity and rate 971(2002)105

Study of the mass transfer kinetics in a monolithic column 983(2003)51

Influence of the particle porosity on chromatographic band profiles 989(2003)207

Mass transport kinetics

Modeling of preparative chromatography processes with slow intraparticle mass transport kinetics 988(2003)219

Mathematical modelling

Temperature effects on the retention of *n*-alkanes and arenes in helium–squalane gas–liquid chromatography. Experiment and molecular simulation 954(2002)181

Simultaneous modeling of the Kovats retention indices on OV-1 and SE-54 stationary phases using artificial neural networks 955(2002)273

Steric mass-action model for dye-ligand affinity adsorption of protein 957(2002)89

Stochastic simulation of the partition mechanism with a heterogeneous surface phase 959(2002)49

Recovery, enrichment and selectivity in liquid-phase microextraction. Comparison with conventional liquid-liquid extraction 963(2002)3

Study on protein adsorption kinetics to a dye-ligand adsorbent by the pore diffusion model 964(2002)35

Capillary electrophoresis in aqueous-organic media. Ionic strength effects and limitations of the Hubbard-Onsager dielectric friction model 964(2002)213

Theory for the capillary electrophoretic separation of DNA in polymer solutions 967(2002)279

New approach to characterise physicochemical properties of solid substrates by inverse gas chromatography at infinite dilution. III. Determination of the acid-base properties of some solid substrates (polymers, oxides and carbon fibres): a new model 969(2002)37

Characterisation of the chromatographic properties of a silica– polypyrrole composite stationary phase by inverse liquid chromatography 969(2002)167

Modelling counter-current chromatography: a chemical engineering perspective 973(2002)39

Mathematical correlations for predicting protein retention times in hydrophobic interaction chromatography 978(2002)71

Novel general expressions that describe the behavior of the height equivalent to a theoretical plate in chromatographic systems involving electrically-driven and pressure-driven flows 979(2002)447

Comparison of the differential isosteric adsorption enthalpies and entropies calculated from chromatographic data 986(2003)89

Determination of single component isotherms and affinity energy distribution by chromatography 988(2003)185

Modeling of preparative chromatography processes with slow intraparticle mass transport kinetics 988(2003)219

Comparison of preparative characteristics of micro open parallel plate separators and microbore columns for concentration of trace species by displacement chromatography 989(2003)3

Modeling of adsorption in hydrophobic interaction chromatography systems using a preferential interaction quadratic isotherm 989(2003)47

Multiobjective optimization of simulated moving bed and Varicol processes using a genetic algorithm 989(2003)95

Influence of the particle porosity on chromatographic band profiles 989(2003)207

Study of the mass transfer kinetics in a monolithic column 983(2003)51

Linear two-step gradient counter-current chromatography. Analysis based on a recursive solution of an equilibrium stage model 989(2003)31

Computational fluid dynamics simulations yielding guidelines for the ideal internal structure of monolithic liquid chromatography columns 991(2003)169

Mathematical representation of electrophoretic mobility of basic drugs in ternary solvent buffers in capillary zone electrophoresis 994(2003)191

Matrix-assisted laser desorption ionization mass spectrometry

see also Mass spectrometry

Thin-layer chromatography-matrix-assisted laser desorption ionisation-time-of-flight mass spectrometry using particle suspension matrices 958(2002)249

Analysis of long-chain polyprenols using supercritical fluid chromatography and matrix-assisted laser desorption ionization time-of-flight mass spectrometry 995(2003)203

Analysis of food proteins and peptides by chromatography and mass spectrometry (Review) 1000(2003)609

Matrix effects

Quantification of volatile sulfur compounds in complex gaseous matrices by solid-phase microextraction 963(2002)57

Identification and quantification of polar naphthalene derivatives in contaminated groundwater of a former gas plant site by liquid chromatography-electrospray ionization tandem mass spectrometry 967(2002)201

Alternative calibration approaches to compensate the effect of co-extracted matrix components in liquid chromatography– electrospray ionisation tandem mass spectrometry analysis of pesticide residues in plant materials 973(2002)13

Sample matrix influence on the choice of background electrolyte for the analysis of bases with capillary zone electrophoresis 979(2002)11

Rapid multi-residue method for the determination of azinphos methyl, bromopropylate, chlorpyrifos, dimethoate, parathion methyl and phosalone in apricots and peaches by using negative chemical ionization ion trap technology 996(2003)181

Matrix effects in (ultra)trace analysis of pesticide residues in food and biotic matrices (Review) 1000(2003)181

Matrix removal

Ion chromatography with inductively coupled plasma mass spectrometry, a powerful analytical tool for complex matrices. Estimation of Pt and Pd in environmental samples 997(2003)51

Matrix solid-phase dispersion

Application of matrix solid-phase dispersion to the determination of a new generation of fungicides in fruits and vegetables 968(2002)201

Comparison of microextraction procedures to determine pesticides in oranges by liquid chromatography-mass spectrometry 970(2002)201

Fast and precise determination of phenthoate and its enantiomeric ratio in soil by the matrix solid-phase dispersion method and liquid chromatography 977(2002)17

Simple method for the determination of trace levels of pesticides in honeybees using matrix solid-phase dispersion and gas chromatography 982(2002)267

Matrix solid-phase dispersion for the liquid chromatographic determination of phenolic acids in *Melissa officinalis* 983(2003)271

Maximum likelihood estimation

How to estimate moments and quantiles of environmental data sets with non-detected observations? A case study on volatile organic compounds in marine water samples 975(2002)123

Mean

How to estimate moments and quantiles of environmental data sets with non-detected observations? A case study on volatile organic compounds in marine water samples 975(2002)123

Meat

Monitoring volatile compounds during dry-cured ham ripening by solid-phase microextraction coupled to a new direct-extraction device 963(2002)83

Determination of *Penicillium* mycotoxins in foods and feeds using liquid chromatography-mass spectrometry 964(2002)189

Blue Chitin columns for the extraction of heterocyclic amines from cooked meat 977(2002)97

Determination of nitrosamines in preserved sausages by solidphase extraction-micellar electrokinetic chromatography 985(2003)503

Determination of the antibiotic chloramphenicol in meat and seafood products by liquid chromatography-electrospray ionization tandem mass spectrometry 994(2003)75

Median

How to estimate moments and quantiles of environmental data sets with non-detected observations? A case study on volatile organic compounds in marine water samples 975(2002)123

Melamine resins

Surface and wastewater quality monitoring: combination of liquid chromatography with (geno)toxicity detection, diode array detection and tandem mass spectrometry for identification of pollutants 970(2002)167

Melissa officinalis

Matrix solid-phase dispersion for the liquid chromatographic determination of phenolic acids in *Melissa officinalis* 983(2003)271

Membrane-assisted solvent extraction

Membrane-assisted solvent extraction of triazines and other semi-volatile contaminants directly coupled to large-volume injection—gas chromatography—mass spectrometric detection 963(2002)27

Membrane chromatography

Protein separation using membrane chromatography: opportunities and challenges (Review) 952(2002)13

Immobilized artificial membrane chromatography coupled with atmospheric pressure ionization mass spectrometry 966(2002)81

Membrane extraction

Analysis of phenoxy herbicides in bovine milk by means of liquid-liquid-liquid microextraction with a hollow-fiber membrane 963(2002)335

Recent applications of sample preparation techniques in food analysis (Review) 975(2002)47

Membrane suppressor

The membrane suppressor: a historical perspective (Review) 956(2002)43

Membranes

see also Hollow-fiber membranes

Convection-aided collection of metal ions using chelating porous flat-sheet membranes 954(2002)277

Chemically facilitated chromium(VI) transport throughout an anion-exchange membrane. Application to an optical sensor for chromium(VI) monitoring 963(2002)205

Continuous permeation of analytes through a thin poly(dimethylsiloxane) membrane followed by sorbent trapping for their gas chromatographic monitoring 964(2002)1

Affinity partitioning for membrane purification exploiting the biotin–NeutrAvidin interaction. Model study of mixed liposomes and membranes 971(2002)117

Characterization of solvation properties of lipid bilayer membranes in liposome electrokinetic chromatography 973(2002)167

On-line automated sample preparation for liquid chromatography using parallel supported liquid membrane extraction and microporous membrane liquid–liquid extraction 975(2002)211

Combination of supported liquid membrane and solid-phase extraction for sample pretreatment of triazine herbicides in juice prior to capillary electrophoresis determination 975(2002)219

Salt effects on the interaction of an amphiphilic model molecule with immobilized phosphatidylcholine monolayers 977(2002)185

Preparative-scale isoelectric trapping separations using a modified Gradiflow unit 979(2002)155

Miniaturized membrane-based reversed-phase chromatography and enzyme reactor for protein digestion, peptide separation, and protein identification using electrospray ionization mass spectrometry 979(2002)241

Process monitoring of anaerobic azo dye degradation by highperformance liquid chromatography—diode array detection continuously coupled to membrane filtration sampling modules 987(2003)395

Preparative-scale isoelectric trapping enantiomer separations 989(2003)73

Adsorptive membrane chromatography for purification of plasmid DNA 989(2003)165

Analysis of protein adsorption on regenerated cellulose-based immobilized copper ion affinity membranes 996(2003)53

Metabolomes

Determination of pyridine and adenine nucleotide metabolites in *Bacillus subtilis* cell extract by sweeping borate complexation capillary electrophoresis 989(2003)293

Metal particles

Retention behavior of metal particle dispersions in aqueous and nonaqueous carriers in thermal field-flow fractionation 983(2003)163

Method development

Simultaneous determination of ketoconazole and formaldehyde in a shampoo: liquid chromatography method development and validation 958(2002)191

Liquid chromatographic method development for determination of fungicide epoxiconazole enantiomers by achiral and chiral column switching technique in water and soil 959(2002)143

Computerized design of separation strategies by reversed-phase liquid chromatography: development of DryLab software (Review) 965(2002)175

Intelligent automation of high-performance liquid chromatography method development by means of a real-time knowledge-based approach 972(2002)27

Methylation

At-line gas chromatographic-mass spectrometric analysis of fatty acid profiles of green microalgae using a direct thermal desorption interface 959(2002)191

Methylene selectivity

Eluotropic strength in non-aqueous liquid chromatography with porous graphitic carbon 973(2002)61

Interaction mechanisms on octadecyl packed columns in subcritical fluid chromatography with CO₂-modifier mobile phases 975(2002)335

Micellar electrokinetic chromatography

see also Electrokinetic chromatography

Study of flow profile distortions and efficiency in counter pressure moderated partial filling micellar electrokinetic chromatography in relation to the relative buffer zone lengths 960(2002)209

(Micellar) electrokinetic chromatography: an interesting solution for the liquid phase separation dilemma (Review) 1000(2003)935

On-line micellar electrokinetic chromatography-mass spectrometry: feasibility of direct introduction of non-volatile buffer and surfactant into the electrospray interface (Review) 1000(2003)953

Micelles

Concentration of chlorophenols in water with sodium dodecylsulfate- γ -alumina admicelles for high-performance liquid chromatographic analysis 972(2002)205

Micelles, mixed

Protein partitioning in thermoseparating systems of a charged hydrophobically modified ethylene oxide polymer 983(2003)133

On-line sample preconcentration in micellar electrokinetic chromatography by sweeping with anionic-zwitterionic mixed micelles 985(2003)435

Solid-phase extraction and sample stacking-micellar electrokinetic capillary chromatography for the determination of multiresidues of herbicides and metabolites 990(2003)291

Michaelis-Menten analysis

Kinetic study of angiotensin converting enzyme activity by capillary electrophoresis after in-line reaction at the capillary inlet 986(2003)303

Microcoil

Hyphenation of capillary separations with nuclear magnetic resonance spectroscopy (Review) 1000(2003)819

Microconcentrator

A microfabricated microconcentrator for sensors and gas chromatography 996(2003)1

Microdialysis

see also Dialysis

Simultaneous determination of berberine in rat blood, liver and bile using microdialysis coupled to high-performance liquid chromatography 961(2002)125

Pharmacokinetic study of levofloxacin in rat blood and bile by microdialysis and high-performance liquid chromatography 961(2002)131

Ginkgo biloba extract preserves pyruvate and enhances ascorbate in the cortex of gerbils during focal cerebral ischemia. A microdialysis-liquid chromatography study 985(2003)387

Pharmacokinetics of metronidazole in rat blood, brain and bile studied by microdialysis coupled to microbore liquid chromatography 987(2003)277

Pharmacokinetic study of free mangiferin in rats by microdialysis coupled with microbore high-performance liquid chromatography and tandem mass spectrometry 987(2003)367

Microdrop analysis

Headspace microdrop analysis—an alternative test method for gasoline diluent and benzene, toluene, ethylbenzene and xylenes in used engine oils 983(2003)205

Microemulsion electrokinetic chromatography

Analysis of catechins in extracts of *Cistus* species by microemulsion electrokinetic chromatography 990(2003)215

Microfiltration

Process monitoring of anaerobic azo dye degradation by highperformance liquid chromatography—diode array detection continuously coupled to membrane filtration sampling modules 987(2003)395

Microfluidics

Initial study of using a laminar fluid diffusion interface for sample preparation in high-performance liquid chromatography 954(2002)33

Characterizing electroosmotic flow in microfluidic devices 971(2002)249

Sample pre-concentration by isotachophoresis in microfluidic devices 979(2002)69

Micromachined capillary cross-connector for high-precision fraction collection 979(2002)105

Micro open parallel plate separator

Comparison of preparative characteristics of micro open parallel plate separators and microbore columns for concentration of trace species by displacement chromatography 989(2003)3

Microwave-assisted extraction

Harmful azo colorants in leather. Determination based on their cleavage and extraction of corresponding carcinogenic aromatic amines using modern extraction techniques 955(2002)215

Analysis of phenoxyalkanoic acid herbicides and their phenolic conversion products in soil by microwave assisted solvent extraction and subsequent analysis of extracts by on-line solid-phase extraction—liquid chromatography 959(2002)153

Determination of metribuzin and major conversion products in soils by microwave-assisted water extraction followed by liquid chromatographic analysis of extracts 962(2002)9

Determination of adipate plasticizers in poly(vinyl chloride) by microwave-assisted extraction 963(2002)401

Optimization of the extraction of azo colorants used in toy products 963(2002)427

Dynamic microwave-assisted extraction coupled on-line with solid-phase extraction: determination of polycyclic aromatic hydrocarbons in sediment and soil 964(2002)11

Optimization of a microwave-assisted extraction method for the analysis of polychlorinated biphenyls in ash samples 985(2003)137

Extraction of polychlorinated biphenyls from soils by automated focused microwave-assisted Soxhlet extraction 998(2003)21

Rapid determination of polycyclic aromatic hydrocarbons in sewage sludges using microwave-assisted solvent extraction. Comparison with other extraction methods 999(2003)175

Migration behaviour

Separation and migration behavior of structurally related phenothiazines in cyclodextrin-modified capillary zone electrophoresis 979(2002)399

Migration prediction

Evaluation of chromatographic versus electrophoretic behaviour of a series of therapeutical peptide hormones 985(2003)411

Milk

New chromatographic method for separation and determination of denatured α_{s1}^- , α_{s2}^- , β - and κ -caseins by hydrophobic interaction chromatography 958(2002)157

Determining eight colorants in milk beverages by capillary electrophoresis 959(2002)317

Liquid chromatographic-tandem mass spectrometric determination of selected sulphonamides in milk 960(2002)121

Analysis of phenoxy herbicides in bovine milk by means of liquid–liquid–liquid microextraction with a hollow-fiber membrane 963(2002)335

Separation and quantification of the major casein fractions by reverse-phase high-performance liquid chromatography and urea-polyacrylamide gel electrophoresis. Detection of milk adulterations 967(2002)209

Development and validation of a liquid chromatographic electrospray tandem mass spectrometric multiresidue method for anthelmintics in milk 976(2002)181

Pervaporation–gas chromatography coupling for slurry samples. Determination of acetaldehyde and acetone in food 976(2002)399

Determination of enrofloxacin and its metabolite ciprofloxacin in goat milk by high-performance liquid chromatography with diode-array detection. Optimization and validation 987(2003)221

Validation of a high-performance liquid chromatography method for the determination of oxytetracycline, tetracycline, chlortetracycline and doxycycline in bovine milk and muscle 987(2003)227

Separation and determination of denatured α_{s1} -, α_{s2} -, β - and κ -caseins by hydrophobic interaction chromatography in cows', ewes' and goats' milk, milk mixtures and cheeses 994(2003)59

Mine detection

On-line coupling of supercritical fluid extraction with highperformance liquid chromatography for the determination of explosives in vapour phases 963(2002)73

Miniaturization

Recent developments in ion chromatography (Review) 956(2002)3

Polymer-coated synthetic fibers designed for miniaturized sample preparation process 975(2002)105

Miniaturized sample preparation combined with liquid phase separations (Review) 1000(2003)53

Mixed-mode separations

Mixed-mode reversed-phase and ion-exchange separations of cationic analytes on polybutadiene-coated zirconia 968(2002)17

Analysis and critical comparison of the reversed-phase and ionexchange contributions to retention on polybutadiene coated zirconia and octadecyl silane bonded silica phases 996(2003)13

Mixed-mode electrokinetic chromatography of aromatic bases with two pseudo-stationary phases and pH control 997(2003)207

Mobile phase composition

see also Chiral selectors

Immobilized artificial membrane liquid chromatography: proposed guidelines for technical optimization of retention measurements 953(2002)39

Dynamic chelation ion chromatography of transition and heavy metal ions using a mobile phase containing 4-chlorodipicolinic acid 953(2002)141

Change of mobile phase pH during gradient reversed-phase chromatography with 2,2,2-trifluoroethanol-water as mobile phase and its effect on the chromatographic hydrophobicity index determination 954(2002)77

Ethylenediamine as eluent component in cation chromatography. Predictive and comparative study for analysis of alkaline earth ions 955(2002)1

Studies on separation of rare earth elements on various types of anion-exchangers in the $C_3H_7OH-7\ M\ HNO_3$ systems 955(2002)257

New suppressor technology improves trace level anion analysis with carbonate-hydrogenearbonate mobile phases 956(2002)47

Solving complex anion separation problems with a carbonate-hydrogenearbonate gradient 956(2002)71

Simultaneous separation of common mono- and divalent cations on a calcinated silica gel column by ion chromatography with indirect photometric detection and aromatic monoamines—oxalic acid, containing crown ethers, used as eluent 956(2002)147

Retention behavior of common mono- and divalent cations on calcinated silica gel columns in ion chromatography with conductimetric detection and the use of nitric acid, containing crown ethers, as eluents 956(2002)159

Simultaneous separation of common mono- and divalent cations on an acid-treated silica gel column by ion chromatography with indirect photometric detection and tyramine—oxalic acid, containing 18-crown-6 as eluent 956(2002)173

Non-linear calibration functions in ion chromatography with suppressed conductivity detection using hydroxide eluents 957(2002)99

On-line pH modification of carbonate eluents using an electrolytic potassium hydroxide generator for ion chromatography 957(2002)165

Effect of the mobile phase composition on the separation and detection of intact proteins by reversed-phase liquid chromatography-electrospray mass spectrometry 957(2002)187

Effect of molecular interactions on retention and selectivity in reversed-phase liquid chromatography 960(2002)69

New model of surface diffusion in reversed-phase liquid chromatography 961(2002)23

Column selectivity in reversed-phase liquid chromatography. II. Effect of a change in conditions 961(2002)195

Retention of ionizable compounds in high-performance liquid chromatography. 14. Acid-base pK values in acetonitrile-water mobile phases 964(2002)55

Organic modifiers for the separation of organic acids and bases by liquid chromatography 964(2002)91

Analysis of ergosteroids. VIII: Enhancement of signal response of neutral steroidal compounds in liquid chromatographic—electrospray ionization mass spectrometric analysis by mobile phase additives 964(2002)137

Size-exclusion chromatography in 1,1,1,3,3,3-hexafluoro-2-propanol 964(2002)169

Gradient elution in normal-phase high-performance liquid chromatographic systems 965(2002)239

Mixed-mode reversed-phase and ion-exchange separations of cationic analytes on polybutadiene-coated zirconia 968(2002)17

New equations describing the combined effect of pH and organic modifier concentration on the retention in reversed-phase liquid chromatography 971(2002)47

Chromatographic shape selectivity with carbon dioxide—acetonitrile mobile phases. Effect of mobile phase composition and density 971(2002)61

Detection of multiple anions by thin-layer chromatography 973(2002)159

Interaction mechanisms on octadecyl packed columns in subcritical fluid chromatography with CO₂-modifier mobile phases 975(2002)335

Determination of ethanol in alcoholic beverages by highperformance liquid chromatography—flame ionization detection using pure water as mobile phase 976(2002)387

Separation and enantioseparation of derivatized amino acids and biogenic amines by high-performance liquid chromatography with reversed and chiral stationary phases 979(2002)191

Separation and determination of nitrobenzenes by micellar electrokinetic chromatography and high-performance liquid chromatography 979(2002)439

Influence of mobile phase acid-base equilibria on the chromatographic behaviour of protolytic compounds (Review) 982(2002)1

Co-eluent effect in partition chromatography. Rhamnose-xylose separation with strong and weak cation-exchangers in aqueous ethanol 982(2002)69

Determination of minor conformational changes of a doxorubicin–peptide conjugate under chromatographic conditions 983(2003)73

Comparison of separation conditions and ionization methods for the liquid chromatography-mass spectrometric determination of sulfonamides 984(2003)153

Micellar liquid chromatography determination of B vitamins with direct injection and ultraviolet absorbance detection 984(2003)223

Studies on the separation of hydronium ion using surfactant-modified reversed-phase stationary phases and eluents containing an acidified electrolyte 986(2003)263

Mass spectrometry-compatible ICH (International Conference on Harmonization) impurity analysis with a high-pH mobile phase. Advantages and pitfalls 987(2003)283

Elution behavior of polyethylene in polar mobile phases on a non-polar sorbent 988(2003)69

Lowering the molecular mass limit of thermal field-flow fractionation for polymer separations 988(2003)285

Chemical compositional separation of styrene—methyl methacrylate copolymers using high-performance liquid chromatography with liquefied carbon dioxide as eluent 991(2003)197

Determination of uracil in 5-fluorouracil substance by highperformance liquid chromatography 994(2003)221

Effect of the mobile phase composition on the isotherm parameters and the high concentration band profiles in reversed-phase liquid chromatography 995(2003)37

True or apparent reversal of elution order during chiral highperformance liquid chromatography monitored by a polarimetric detector under different mobile phase conditions 995(2003)79

Selectivity behaviour of a bonded phosphonate-carboxylate polymeric ion exchanger for metal cations with varying eluent compositions 997(2003)3

Ion-exclusion chromatographic behavior of aliphatic carboxylic acids and benzenecarboxylic acids on a sulfonated styrene—divinylbenzene co-polymer resin column with sulfuric acid containing various alcohols as eluent 997(2003)95

Ion-exclusion chromatographic separations of C_1 – C_6 aliphatic carboxylic acids on a sulfonated styrene–divinylbenzene copolymer resin column with 5-methylhexanoic acid as eluent 997(2003)107

Ion-exclusion chromatography with conductimetric detection of aliphatic carboxylic acids on a weakly acidic cation-exchange resin by elution with benzoic acid- β -cyclodextrin 997(2003)127

Some factors affecting separation and detection of amino acids by high-performance anion-exchange chromatography with integrated pulsed amperometric detection 997(2003)145

Mobile phase recycling

Zwitterionic ion chromatography using a dynamically coated column and mobile phase recycling 973(2002)103

Mobile zone

Band dispersion in chromatography—a universal expression for the contribution from the mobile zone 960(2002)7

Models of chromatography

Preparative liquid chromatography (Review) 965(2002)129

Modified Gaussian model

Parabolic-Lorentzian modified Gaussian model for describing and deconvolving chromatographic peaks 954(2002)59

Modulation

Theoretical study of incomplete sampling of the first dimension in comprehensive two-dimensional chromatography 962(2002)21

Comprehensive two-dimensional gas chromatography: a powerful and versatile analytical tool 1000(2003)69

Molar excess volumes

Quantitative accuracy in the gas chromatographic analysis of solvent mixtures 985(2003)21

Molar internal energy

Thermodynamics and kinetics of solute transfer in reversedphase liquid chromatography 987(2003)3

Molar volume

Thermodynamics and kinetics of solute transfer in reversedphase liquid chromatography 987(2003)3

Molecular biomarkers

Pressurized liquid extraction of selected molecular biomarkers in deep sea sediments used as proxies in paleoceanography 989(2003)197

Molecular descriptors

Simultaneous modeling of the Kovats retention indices on OV-1 and SE-54 stationary phases using artificial neural networks 955(2002)273

Characterization of crude oils by inverse gas chromatography 969(2002)207

Prediction of electrophoretic mobilities of alkyl- and alkenylpyridines in capillary electrophoresis using artificial neural networks 971(2002)207

Predictive approaches to gradient retention based on analyte structural descriptors from calculation chemistry 987(2003)29

Classification and regression tree analysis for molecular descriptor selection and retention prediction in chromatographic quantitative structure–retention relationship studies 988(2003)261

Two-step multivariate adaptive regression splines for modeling a quantitative relationship between gas chromatography retention indices and molecular descriptors 998(2003)155

Molecular dynamics

Effects of solvent density on retention in gas-liquid chromatography. II. Polar solutes in poly(ethylene glycol) stationary phases 989(2003)265

Molecular imprinting

Chromatographic characteristics of cholesterol-imprinted polymers prepared by covalent and non-covalent imprinting methods 962(2002)69

Non-covalent and semi-covalent molecularly imprinted polymers for selective on-line solid-phase extraction of 4-nitrophenol from water samples 963(2002)169

Energetic heterogeneity of the surface of a molecularly imprinted polymer studied by high-performance liquid chromatography 964(2002)99

Effect of solvents on the selectivity of terbutylazine imprinted polymer sorbents used in solid-phase extraction 973(2002)1

Extraction of clenbuterol from calf urine using a molecularly imprinted polymer followed by quantitation by high-performance liquid chromatography with UV detection 975(2002)157

On-line solid-phase extraction of ceramides from yeast with ceramide III imprinted monolith 984(2003)173

Molecularly imprinted monolithic stationary phases for liquid chromatographic separation of enantiomers and diastereomers 984(2003)273

Preparation of a molecularly imprinted polymer for the solidphase extraction of scopolamine with hyoscyamine as a dummy template molecule 987(2003)103

On-column concentration of bisphenol A with one-step removal of humic acids in water 987(2003)389

Selective separation of active inhibitors of epidermal growth factor receptor from Caragana Jubata by molecularly imprinted solid-phase extraction 991(2003)151

On-line solid-phase extraction with molecularly imprinted polymers to selectively extract substituted 4-chlorophenols and 4-nitrophenol from water 995(2003)233

Optimization of the class-selective extraction of triazines from aqueous samples using a molecularly imprinted polymer by a comprehensive approach of the retention mechanism 999(2003)23

Before the injection—modern methods of sample preparation for separation techniques (Review) 1000(2003)3

Immuno-based sample preparation for trace analysis (Review) 1000(2003)29

Molecular interactions

Effect of molecular interactions on retention and selectivity in reversed-phase liquid chromatography 960(2002)69

Molecular mass dependence

Study on the concentration effects in size exclusion chromatography. VII. A quantitative verification for the model theory of concentration and molecular mass dependences of hydrodynamic volumes for polydisperse polymers 961(2002)155

Molecular mass determination

Determining the molar mass of a plasma substitute succinylated gelatin by size exclusion chromatography—multi-angle laser light scattering, sedimentation equilibrium and conventional size exclusion chromatography 957(2002)139

Characterization of the refolding and reassembly of an integral membrane protein OmpF porin by low-angle laser light scattering photometry coupled with high-performance gel chromatography 961(2002)137

Molecular mass characterization of polymers with strongly interacting groups using gel permeation chromatography-light scattering detection 976(2002)155

Molecular mass determination of polyamic acid ionic salt by size-exclusion chromatography 977(2002)207

Molecular mass distribution

Contribution of the polymer standards' polydispersity to the observed band broadening in size-exclusion chromatography 986(2003)1

Molecular mass limit

Lowering the molecular mass limit of thermal field-flow fractionation for polymer separations 988(2003)285

Molecular modelling

Galactosyl-biomimetic dye-ligands for the purification of *Dactylium dendroides* galactose oxidase 954(2002)137

Molecular modelling of chain end effects in separating oligomers by reversed-phase gradient polymer elution chromatography; adsorption transition as revealed by a self-consistent-field theory for polymer adsorption 959(2002)37

The application of molecular modelling to the interpretation of inverse gas chromatography data 969(2002)49

Chiral separation of γ -butyrolactone derivatives by gas chromatography on 2,3-di-O-methyl-6-O-tert.-butyldimethylsilyl- β -cyclodextrin 985(2003)321

Predictive approaches to gradient retention based on analyte structural descriptors from calculation chemistry 987(2003)29

Experimental comparison of three monoclonal antibodies for the class-selective immunoextraction of triazines. Correlation with molecular modeling and principal component analysis studies 999(2003)3

Molecular recognition

Utilization of synergetic effect of weak interactions in the design of polymeric sorbents with high sorption selectivity 952(2002)71

Moment analysis

Comparison of the capability of peak functions in describing real chromatographic peaks 952(2002)63

Moment bias

Determining and correcting "moment bias" in gradient polymer elution chromatography 996(2003)45

Monolithic columns

see also Sol-gel

Monolithic silica columns for high-efficiency separations by high-performance liquid chromatography 960(2002)85

Trace determination of priority pesticides in water by means of high-speed on-line solid-phase extraction—liquid chromatography—tandem mass spectrometry using turbulent-flow chromatography columns for enrichment and a short monolithic column for fast liquid chromatographic separation 960(2002)109

Monolithic stationary phases for liquid chromatography and capillary electrochromatography (Review) 954(2002)5

Adsorption equilibria of butyl- and amylbenzene on monolithic silica-based columns 957(2002)111

Micropreparative fractionation of DNA fragments on metathesisbased monoliths: influence of stoichiometry on separation 959(2002)121

Repeatability and reproducibility of retention data and band profiles on six batches of monolithic columns 960(2002)19

Monolithic silica columns for high-efficiency separations by high-performance liquid chromatography 960(2002)85

Effect of preparatory conditions on the performance of photopolymerized sol-gel monoliths for capillary electrochromatography 961(2002)45

Monolithic silica columns with various skeleton sizes and through-pore sizes for capillary liquid chromatography 961(2002)53

Monolithic silica columns for high-efficiency chromatographic separations (Review) 965(2002)35

Comparison of conventional microparticulate and a monolithic reversed-phase column for high-efficiency fast liquid chromatography of basic compounds 965(2002)51

Analysis of wine phenolics by high-performance liquid chromatography using a monolithic type column 973(2002)221

Determination of the porosities of monolithic columns by inverse size-exclusion chromatography 975(2002)275

Comparison of the adsorption equilibrium of a few low-molecular mass compounds on a monolithic and a packed column in reversed-phase liquid chromatograph 978(2002)81

Study of the mass transfer kinetics in a monolithic column 983(2003)51

Electrochromatography with a 2.7 mm inner diameter monolithic column 983(2003)255

Protein proteolysis and the multi-dimensional electrochromatographic separation of histidine-containing peptide fragments on a chip 984(2003)97

On-line solid-phase extraction of ceramides from yeast with ceramide III imprinted monolith 984(2003)173

Monolithic silica column for in-tube solid-phase microextraction coupled to high-performance liquid chromatography 985(2003)351

Temperature influence on the dynamic binding capacity of a monolithic ion-exchange column 987(2003)159

Influence of the particle porosity on chromatographic band profiles 989(2003)207

Automated microgradient system for capillary electrochromatography 990(2003)3

Comparison of enantioseparations using Cu(II) complexes with L-amino acid amides as chiral selectors or chiral stationary phases by capillary electrophoresis, capillary electrochromatography and micro liquid chromatography 990(2003)75

Computational fluid dynamics simulations yielding guidelines for the ideal internal structure of monolithic liquid chromatography columns 991(2003)169

Rapid separation of chlorophylls a and b and their demetallated and dephytylated derivatives using a monolithic silica C_{18} column and a pyridine-containing mobile phase 994(2003)85

Rapid identification and quantitation of compounds with forensic interest using fast liquid chromatography-ion trap mass spectrometry and library searching 994(2003)93

Monolithic octadecylsilyl-silica gel column for the high-speed ion chromatographic determination of acidity 997(2003)183

Silica gel-based monoliths prepared by the sol-gel method: Facts and figures (Review) 1000(2003)801

Monolithic disks

In vitro comparison of complementary interactions between synthetic linear/branched oligo/poly-L-lysines and tissue plasminogen activator by means of high-performance monolithic-disk affinity chromatography 992(2003)109

Moving boundary system

Investigations on factors that influence the moving neutralization reaction boundary method for capillary electrophoresis and isoelectric focusing 952(2002)29

Improving separation efficiency of capillary zone electrophoresis of tryptophan and phenylalanine with the transient moving chemical reaction boundary method 952(2002)39

Moving chemical reaction boundary

Investigations on factors that influence the moving neutralization reaction boundary method for capillary electrophoresis and isoelectric focusing 952(2002)29

Improving separation efficiency of capillary zone electrophoresis of tryptophan and phenylalanine with the transient moving chemical reaction boundary method 952(2002)39

Multi-channel optical detection

Fiber optic multi-channel protein detector for use in preparative continuous annular chromatography 967(2002)183

Multidimensional liquid phase based separation techniquesAnalysis of food proteins and peptides by chromatography and mass spectrometry (Review) 1000(2003)609

Multidimensional techniques

Different multidimensional chromatographic approaches applied to the study of wine malolactic fermentation 995(2003)161

Multilayer adsorption

Measurement and modeling of the equilibrium behavior of the Tröger's base enantiomers on an amylose-based chiral stationary phase 955(2002)35

MultiSimplex optimization

MultiSimplex optimisation of the solid-phase microextraction—gas chromatographic—mass spectrometric determination of polycyclic aromatic hydrocarbons, polychlorinated biphenyls and phthalates from water samples 978(2002)165

Multisorbent adsorption

Measurement of toxic volatile organic compounds in indoor air of semiconductor foundries using multisorbent adsorption/thermal desorption coupled with gas chromatography-mass spectrometry 996(2003)225

Multistep fractionation

Sequential fractionation procedure for the identification of potentially cytochrome P4501A-inducing compounds 986(2003)55

Erratum to "Sequential fractionation procedure for the identification of potentially cytochrome P4501A-inducing compounds". [J. Chromatogr. A, 986 (2003) 55–66] 993(2003)223

Multivariate adaptive regression splines

Two-step multivariate adaptive regression splines for modeling a quantitative relationship between gas chromatography retention indices and molecular descriptors 998(2003)155

Mytilus galloprovincialis

Direct detection of yessotoxin and its analogues by liquid chromatography coupled with electrospray ion trap mass spectrometry 968(2002)61



Nebulization

Capillary electrophoresis-inductively coupled plasma-mass spectrometry: an attractive complementary technique for elemental speciation analysis (Review) 975(2002)245

Glass nebulizer interface for capillary electrophoresis-Fourier transform infrared spectrometry 976(2002)19

Negligible depletion sampling

Capillary extractors for "negligible depletion" sampling of benzene, toluene, ethylbenzene and xylenes by in-tube solid-phase microextraction 985(2003)85

Net analyte signal

Net analyte signal as a deconvolution-oriented resolution criterion in the optimisation of chromatographic techniques 991(2003)47

Neural networks, artificial

Simultaneous modeling of the Kovats retention indices on OV-1 and SE-54 stationary phases using artificial neural networks 955(2002)273

Prediction of electrophoretic mobilities of alkyl- and alkenylpyridines in capillary electrophoresis using artificial neural networks 971(2002)207

Optimization of artificial neural networks used for retention modelling in ion chromatography 973(2002)47

Evaluation of calibration data in capillary electrophoresis using artificial neural networks to increase precision of analysis 979(2002)59

Mixed-mode electrokinetic chromatography of aromatic bases with two pseudo-stationary phases and pH control 997(2003)207

Nicotiana tabacum

Comprehensive chemical derivatization for gas chromatography—mass spectrometry-based multi-targeted profiling of the major phytohormones 993(2003)89

Non-aqueous capillary electrophoresis

Optimization of the separation of *Vinca* alkaloids by nonaqueous capillary electrophoresis 968(2002)241

Application of 1-alkyl-3-methylimidazolium-based ionic liquids in non-aqueous capillary electrophoresis 979(2002)27

Analysis of active chemical species generated by electrolysis using non-aqueous capillary electrophoresis. Detection of the anion radical and the divalent anion of tetracyanoguinodimethane 979(2002)91

Analysis of catecholamines by capillary electrophoresis and capillary electrophoresis—nanospray mass spectrometry. Use of aqueous and non-aqueous solutions compared with physical parameters 979(2002)179

Potential of formamide and *N*-methylformamide in nonaqueous capillary electrophoresis coupled to electrospray ionization mass spectrometry. Application to the analysis of β -blockers 979(2002)389

Chiral separation of amines with *N*-benzoxycarbonylglycyl-*L*-proline as selector in non-aqueous capillary electrophoresis using methanol and 1,2-dichloroethane in the background electrolyte 984(2003)261

Development of a chiral non-aqueous capillary electrophoretic system using the partial filling technique with UV and mass spectrometric detection 986(2003)143

Enantiomer separation of *N*-protected amino acids by non-aqueous capillary electrophoresis and high-performance liquid chromatography with *tert*.-butyl carbamoylated quinine in either the background electrolyte or the stationary phase 987(2003)421

Non-aqueous capillary electrophoresis of the positional isomers of a sulfated monosaccharide 987(2003)467

Nonaqueous-based microchip separation of toxic metal ions using 2-(5-bromo-2-pyridylazo)-5-(*N*-propyl-*N*-sulfopropylamino)phenol 989(2003)311

Separation of polyphenolic compounds extracted from plant matrices using capillary electrophoresis 990(2003)225

Non-covalent imprinting

Chromatographic characteristics of cholesterol-imprinted polymers prepared by covalent and non-covalent imprinting methods 962(2002)69

Non-covalent interactions

The potential of organic (electrospray- and atmospheric pressure chemical ionisation) mass spectrometric techniques coupled to liquid-phase separation for speciation analysis (Review) 1000(2003)841

Nonlinear calibration

Non-linear calibration functions in ion chromatography with suppressed conductivity detection using hydroxide eluents 957(2002)99

Nonlinear chromatography

Preparative liquid chromatography (Review) 965(2002)129

Determination of dependencies between the specific retention volumes and the parameters characterising adsorbent properties 969(2002)87

Influence of pressure on the chromatographic behavior of insulin variants under nonlinear conditions 988(2003)205

Nonlinear fitting

Quantitative approach for the screening of cyclodextrins by nuclear magnetic resonance spectroscopy in support of chiral separations in liquid chromatography and capillary electrophoresis. Enantioseparation of norgestrel with α -, β - and γ -cyclodextrins 961(2002)257

Nonlinear peaks

Influence of the particle porosity on chromatographic band profiles 989(2003)207

Nuclear magnetic resonance spectrometry

Use of on-line liquid chromatography-nuclear magnetic resonance spectroscopy for the rapid investigation of flavonoids from *Sorocea bomplandii* 953(2002)287

A comparative study of commercial liquid chromatographic detectors for the analysis of underivatized amino acids 961(2002)9

Quantitative approach for the screening of cyclodextrins by nuclear magnetic resonance spectroscopy in support of chiral separations in liquid chromatography and capillary electrophoresis. Enantioseparation of norgestrel with α -, β - and γ -cyclodextrins 961(2002)257

On-line liquid-chromatography-nuclear magnetic resonance spectroscopy-mass spectrometry coupling for the separation and characterization of secoisolariciresinol diglucoside isomers in flaxseed 972(2002)195

Mechanistic study of enantiomeric recognition with native γ -cyclodextrin by capillary electrophoresis, reversed-phase liquid chromatography, nuclear magnetic resonance spectroscopy, electrospray mass spectrometry and circular dichroism techniques 987(2003)409

Analysis of a ginger extract by high-performance liquid chromatography coupled to nuclear magnetic resonance spectroscopy using superheated deuterium oxide as the mobile phase 991(2003)143

Hyphenation and hypernation. The practice and prospects of multiple hyphenation (Review) 1000(2003)325

Liquid chromatography with ultraviolet absorbance–mass spectrometric detection and with nuclear magnetic resonance spectrometry: a powerful combination for the on-line structural investigation of plant metabolites (Review) 1000(2003)437

Hyphenation of capillary separations with nuclear magnetic resonance spectroscopy (Review) 1000(2003)819

Nucleotide metabolism

Fast, efficient capillary electrophoresis method for measuring nucleotide degradation and metabolism 952(2002)275



Obituary

A.J.P. Martin (1910–2002) (Obituary) 972(2002)131

Objective function

Net analyte signal as a deconvolution-oriented resolution criterion in the optimisation of chromatographic techniques 991(2003)47

Octadecyl-poly(vinyl alcohol) columns

Method for measuring the logarithm of the octanol-water partition coefficient by using short octadecyl-poly(vinyl alcohol) high-performance liquid chromatography columns 952(2002)47

Octanol-water partition coefficients

see also Partition coefficients

Method for measuring the logarithm of the octanol—water partition coefficient by using short octadecyl—poly(vinyl alcohol) high-performance liquid chromatography columns 952(2002)47

Separation and enantioseparation of derivatized amino acids and biogenic amines by high-performance liquid chromatography with reversed and chiral stationary phases 979(2002)191

pH dependence of the hydrophobicity of β -blocker amine compounds measured by counter-current chromatography 995(2003)55

Solid-phase microextraction fibre—water distribution constants of more hydrophobic organic compounds and their correlations with octanol—water partition coefficients 999(2003)35

Odour concentration

Gas chromatography—mass spectrometry as a tool for estimating odour concentrations of biofilter effluents at aerobic composting and rendering plants 970(2002)259

Off-flavor compounds

Development of a headspace solid-phase microextraction—gas chromatography—mass spectrometry method for the identification of odour-causing volatile compounds in packaging materials 963(2002)381

Oils

see also Essential oils, Olive oil, Petroleum and Vegetable oils

Development of a high-performance liquid chromatography carbon column based method for the fractionation of dioxin-like polychlorinated biphenyls 962(2002)79

Inverse gas chromatography and other chromatographic techniques in the examination of engine oils 969(2002)181

Characterization of crude oils by inverse gas chromatography 969(2002)207

Characterization and source identification of hydrocarbons in water samples using multiple analytical techniques 971(2002)173

Gas chromatographic methods for oil analysis (Review) 972(2002)137

Gas chromatographic determination of fatty acids contained in different lipid classes after their separation by solid-phase extraction 976(2002)47

Sensitive and accurate quantitation of monoepoxy fatty acids in thermoxidized oils by gas-liquid chromatography 982(2002)145

Application of inverse gas chromatography to the examination of annealing processes of semi-synthetic base oils 982(2002)245

Headspace microdrop analysis—an alternative test method for gasoline diluent and benzene, toluene, ethylbenzene and xylenes in used engine oils 983(2003)205

Solid-phase extraction-thin-layer chromatography-gas chromatography method for the detection of hazelnut oil in olive oils by determination of esterified sterols 985(2003)211

Determination of the disproportionation products of limonene used for the catalytic hydrogenation of castor oil 985(2003)313

Solid-phase clean-up in the liquid chromatographic determination of polycyclic aromatic hydrocarbons in edible oils 988(2003)33

Optimized conditions for hydrocarbon group type analysis of base oils by thin-layer chromatography—flame ionisation detection 991(2003)255

Retention index calculation without *n*-alkanes—the virtual carbon number 993(2003)187

Comments on the early history of gas chromatographic methods for oil analysis 993 (2003) 217

Reply to "Comments to the early history of gas chromatographic methods for oil analysis" by L.S. Ettre 993(2003)221

Identification of aroma active compounds in orange essence oil using gas chromatography-olfactometry and gas chromatography-mass spectrometry 998(2003)201

Comprehensive two-dimensional liquid chromatography×gas chromatography: evaluation of the applicability for the analysis of edible oils and fats (Review) 1000(2003)385

Olfactometry

Gas chromatography-mass spectrometry as a tool for estimating odour concentrations of biofilter effluents at aerobic composting and rendering plants 970(2002)259

Identification of aroma active compounds in orange essence oil using gas chromatography-olfactometry and gas chromatography-mass spectrometry 998(2003)201

Oligosaccharide mapping

Structural analysis of a glycoprotein by liquid chromatography—mass spectrometry and liquid chromatography with tandem mass spectrometry. Application to recombinant human thrombomodulin 978(2002)141

Olive oil

Analysis of virgin olive oil volatile compounds by headspace solid-phase microextraction coupled to gas chromatography with mass spectrometric and flame ionization detection 983(2003)19

Simultaneous determination of long-chain aliphatic aldehydes and waxes in olive oils 983(2003)283

Solid-phase extraction-thin-layer chromatography-gas chromatography method for the detection of hazelnut oil in olive oils by determination of esterified sterols 985(2003)211

Liquid-liquid and solid-phase extractions of phenols from virgin olive oil and their separation by chromatographic and electrophoretic methods 985(2003)425

On-column focusing

Determination of rotenone in river water utilizing packed capillary column switching liquid chromatography with UV and time-of-flight mass spectrometric detection 983(2003)43

On-column injector

Role of the retaining precolumn in large-volume on-column injections of volatiles to gas chromatography 975(2002)95

One-dimensional chromatography

Peak deconvolution in one-dimensional chromatography using a two-way data approach 958(2002)35

One-site mixed-mode model

Analysis and critical comparison of the reversed-phase and ionexchange contributions to retention on polybutadiene coated zirconia and octadecyl silane bonded silica phases 996(2003)13

Onions

Aroma analysis of fresh and preserved onions and leek by dual solid-phase microextraction-liquid extraction and gas chromatography-mass spectrometry 963(2002)89

Open-cap vials

Optimisation of solid-phase microextraction of volatiles 960(2002)159

Open tubular capillary electrochromatography

Evaluation of extended light path capillary and etched capillary for use in open tubular capillary electrochromatography 961(2002)285

Ophthalmic solutions

Development and validation of a capillary zone electrophoresis method for the determination of benzalkonium chlorides in ophthalmic solutions 976(2002)207

Optical sensors

Chemically facilitated chromium(VI) transport throughout an anion-exchange membrane. Application to an optical sensor for chromium(VI) monitoring 963(2002)205

OPTICS color map

Determining orthogonal chromatographic systems prior to the development of methods to characterise impurities in drug substances 988(2003)77

Optimization

Determination of hexavalent chromium at the level of the California Public Health Goal by ion chromatography 956(2002)255

Analysis of the *Cinchona* alkaloids by high-performance liquid chromatography and other separation techniques (Review) 967(2002)1

Optimization of artificial neural networks used for retention modelling in ion chromatography 973(2002)47

Use of experimental design for the purge-and-trap-gas chromatography-mass spectrometry determination of methyl *tert.*-butyl ether, *tert.*-butyl alcohol and BTEX in groundwater at trace level 975(2002)113

MultiSimplex optimisation of the solid-phase microextraction—gas chromatographic—mass spectrometric determination of polycyclic aromatic hydrocarbons, polychlorinated biphenyls and phthalates from water samples 978(2002)165

Optimisation by experimental design of a capillary electrophoretic method for the separation of several inhibitors of angiotensin-converting enzyme using alkylsulphonates 978(2002)231

Optimization and validation of a micellar electrokinetic chromatographic method for the analysis of several angiotensin-II-receptor antagonists 984(2003)135

Comprehensive two-dimensional gas chromatography: metrics, potentials, limits 985(2003)29

Evaluation of chromatographic versus electrophoretic behaviour of a series of therapeutical peptide hormones 985(2003)411

Multiobjective optimization of simulated moving bed and Varicol processes using a genetic algorithm 989(2003)95

Development of a capillary zone electrophoresis—electrospray ionisation tandem mass spectrometry method for the analysis of fluoroquinolone antibiotics 990(2003)259

Net analyte signal as a deconvolution-oriented resolution criterion in the optimisation of chromatographic techniques 991(2003)47

Computer-assisted method development and optimization in HPLC 991(2003)281

Multivariate optimisation of a cyclodextrin-assisted-capillary zone electrophoretic method for the separation of torasemide and its metabolites 990(2003)271

Simultaneous determination of neutral and acidic pharmaceuticals in wastewater by high-performance liquid chromatography-post-column photochemically induced fluorimetry 993(2003)29

Optimization, validation and comparison of various extraction techniques for the trace determination of polycyclic aromatic hydrocarbons in sewage sludges by liquid chromatography coupled to diode-array and fluorescence detection 995(2003)87

Analysis of 35 priority semivolatile compounds in water by stir bar sorptive extraction-thermal desorption-gas chromatography-mass spectrometry. I. Method optimisation 999(2003)91

Oroxylum indicum

Isolation and identification of four flavonoid constituents from the seeds of *Oroxylum indicum* by high-speed counter-current chromatography 988(2003)95

Orthogonal array designs

Optimization of the headspace solid-phase microextraction for determination of glycol ethers by orthogonal array designs 977(2002)9

Orthogonal chromatographic systems

Determining orthogonal chromatographic systems prior to the development of methods to characterise impurities in drug substances 988(2003)77

Comprehensive two-dimensional gas chromatography: a powerful and versatile analytical tool 1000(2003)69

Overpressured-layer chromatography

Progress in forced-flow planar chromatography (Review) 1000(2003)985

Oxidation

Monitoring and characterization of ink vehicle autoxidation by inverse gas chromatography 969(2002)313



Packaging materials

Application of solid-phase microextraction combined with gas chromatography-mass spectrometry to the determination of butylated hydroxytoluene in bottled drinking water 963(2002)179

Development of a headspace solid-phase microextraction—gas chromatography—mass spectrometry method for the identification of odour-causing volatile compounds in packaging materials 963(2002)381

Determination of primary aromatic amines in water food simulant using solid-phase analytical derivatization followed by gas chromatography coupled with mass spectrometry 983(2003)35

Direct quantitation of volatile organic compounds in packaging materials by headspace solid-phase microextraction-gas chromatography-mass spectrometry 985(2003)247

Multiple headspace solid-phase microextraction for the quantitative determination of volatile organic compounds in multilayer packagings 999(2003)155

Packed capillary columns

see also Capillary columns

Determination of rotenone in river water utilizing packed capillary column switching liquid chromatography with UV and time-of-flight mass spectrometric detection 983(2003)43

Packed columns

Axial and radial diffusion coefficients in a liquid chromatography column and bed heterogeneity 994(2003)1

Packing density

Axial and radial diffusion coefficients in a liquid chromatography column and bed heterogeneity 994(2003)1

Packing structure

Packing structure and self-heating in capillary electrochromatography 986(2003)297

Paints

Ion chromatography characterization of polysaccharides in ancient wall paintings 968(2002)79

Papaver somniferum

Use of dynamically coated capillaries with added cyclodextrins for the analysis of opium using capillary electrophoresis 984(2003)109

Paper

Determination of toxic compounds in paper-recycling process waters by gas chromatography-mass spectrometry and liquid chromatography-mass spectrometry 963(2002)265

Inverse gas chromatography study on partially esterified paper fiber 969(2002)301

Effects of dehydration on the apolar surface energetics of inorganic paper fillers 972(2002)241

Paper mill

Comparison of gas chromatography-mass spectrometry and liquid chromatography-mass spectrometry for the determination of fatty and resin acids in paper mill process waters 991(2003)205

Paper recycling

Monitoring and characterization of ink vehicle autoxidation by inverse gas chromatography 969(2002)313

PARAFAC modelling

Chromatographic alignment by warping and dynamic programming as a pre-processing tool for PARAFAC modelling of liquid chromatography—mass spectrometry data 961(2002)237

Parallel diffusion

Analysis of diffusion models for protein adsorption to porous anion-exchange adsorbent 962(2002)29

Parallel factor analysis

Chromatographic alignment by warping and dynamic programming as a pre-processing tool for PARAFAC modelling of liquid chromatography—mass spectrometry data 961(2002)237

Parcel model

Parcel model for peak shapes in chromatography. Numerical verification of the temporal distortion effect to peak asymmetry 988(2003)233

Partial filling capillary electrophoresis

Development of a chiral non-aqueous capillary electrophoretic system using the partial filling technique with UV and mass spectrometric detection 986(2003)143

Partial filling electrophoretically mediated microanalysis Inhibition study of rhodanese by means of electrophoretically mediated microanalysis 990(2003)189

Partial filling micellar electrokinetic chromatography

Study of flow profile distortions and efficiency in counter pressure moderated partial filling micellar electrokinetic chromatography in relation to the relative buffer zone lengths 960(2002)209

Particle retention

Practical implications of ionic strength effects on particle retention in thermal field-flow fractionation 984(2003)67

Particle suspension matrix

Thin-layer chromatography-matrix-assisted laser desorption ionisation-time-of-flight mass spectrometry using particle suspension matrices 958(2002)249

Partition coefficients

see also Octanol-water partition coefficients

Effects of solvent density on retention in gas-liquid chromatography. I. Alkanes solutes in polyethylene glycol stationary phases 953(2002)151

Stochastic simulation of the partition mechanism with a heterogeneous surface phase 959(2002)49

Rapid estimation of octanol-water partition coefficients using synthesized vesicles in electrokinetic chromatography 962(2002)207

Recovery, enrichment and selectivity in liquid-phase microextraction. Comparison with conventional liquid-liquid extraction 963(2002)3

Estimation of soil organic partition coefficients: from retention factors measured by soil column chromatography with water as eluent 968(2002)7

Using different types of capillary chromatographic columns as denudation traps: a comparison of sorption properties 977(2002)115

Determination of siloxane-water partition coefficients by capillary extraction-high-resolution gas chromatography. Study of aromatic solvents 985(2003)39

Effects of solvent density on retention in gas-liquid chromatography. II. Polar solutes in poly(ethylene glycol) stationary phases 989(2003)265

pH dependence of the hydrophobicity of β -blocker amine compounds measured by counter-current chromatography 995(2003)55

Lipophilicity of vinpocetine and related compounds characterized by reversed-phase thin-layer chromatography 996(2003)195

Passiflora spp.

Fast supercritical fluid extraction and high-resolution gas chromatography with electron-capture and flame photometric detection for multiresidue screening of organochlorine and organophosphorus pesticides in Brazil's medicinal plants 985(2003)159

Peak asymmetry

Analysis of peak asymmetry in chromatography 953(2002)31

Peak compression

Peak compression effects in capillary electrochromatography of basic drug substances using a strong cation-exchanger 979(2002)335

Peak deconvolution

Peak deconvolution in one-dimensional chromatography using a two-way data approach 958(2002)35

Net analyte signal as a deconvolution-oriented resolution criterion in the optimisation of chromatographic techniques 991(2003)47

Peak functions

Comparison of the capability of peak functions in describing real chromatographic peaks 952(2002)63

Peak matching algorithm

High-speed peak matching algorithm for retention time alignment of gas chromatographic data for chemometric analysis 996(2003)141

Peak modelling

Comparison of the capability of peak functions in describing real chromatographic peaks 952(2002)63

Parabolic-Lorentzian modified Gaussian model for describing and deconvolving chromatographic peaks 954(2002)59

Peak purity

Applicability of mass spectrometry to detect coeluting impurities in high-performance liquid chromatography 971(2002)159

Peak recognition

Computer-assisted automatic peak recognition and result evaluation for analysis of chlorinated hydrocarbons in environmental samples 957(2002)37

Peak shape

see also Band broadening and Band profiles

Increase of sample load without peak deterioration by careful selection of electrolyte in capillary zone electrophoresis 953(2002)227

Electromigration dispersion in capillary zone electrophoresis. Experimental validation of use of the Haarhoff-Van der Linde function 959(2002)229

Effects of temperature and flow regulated carbon dioxide cooling in longitudinally modulated cryogenic systems for comprehensive two-dimensional gas chromatography 962(2002)127

Relations between the separation coefficient, longitudinal displacement and peak broadening in size exclusion chromatography of macromolecules 978(2002)109

Sample matrix influence on the choice of background electrolyte for the analysis of bases with capillary zone electrophoresis 979(2002)11

Comparison of peak shapes obtained with volatile (mass spectrometry-compatible) buffers and conventional buffers in reversed-phase high-performance liquid chromatography of bases on particulate and monolithic columns 987(2003)17

Prediction of the plate height of capillary columns operated at any inlet pressure of the carrier gas by using few retention data measured under isobaric conditions 994(2003)103

Parcel model for peak shapes in chromatography. Numerical verification of the temporal distortion effect to peak asymmetry 988(2003)233

Pedicularis spp.

Separation and determination of phenylpropanoid glycosides from *Pedicularis* species by capillary electrophoresis 986(2003)163

Penicillium

Determination of *Penicillium* mycotoxins in foods and feeds using liquid chromatography-mass spectrometry 964(2002)189

Penicillium roqueforti

Monitoring and fast detection of mycotoxin-producing fungi based on headspace solid-phase microextraction and headspace sorptive extraction of the volatile metabolites 985(2003)127

Peptide mapping

Characterisation of botulinum toxins type A and B, by matrixassisted laser desorption ionisation and electrospray mass spectrometry 970(2002)95 Structural analysis of a glycoprotein by liquid chromatography—mass spectrometry and liquid chromatography with tandem mass spectrometry. Application to recombinant human thrombomodulin 978(2002)141

Miniaturized on-line proteolysis-capillary liquid chromatography-mass spectrometry for peptide mapping of lactate dehydrogenase 998(2003)83

Peptide-RNA interactions

Structural requirements for conserved Arg⁵² residue for interaction of the human immunodeficiency virus type 1 transactivation responsive element with trans-activator of transcription protein (49–57). Capillary electrophoresis mobility shift assay 968(2002)211

Perfusion chromatography

Analysis of food proteins and peptides by chromatography and mass spectrometry (Review) 1000(2003)609

Permeability

Evaluation of protein-A chromatography media 989(2003)139

Perturbation chromatography

Study of the mass transfer kinetics in a monolithic column 983(2003)51

Influence of the particle porosity on chromatographic band profiles 989(2003)207

Perturbation method

Theoretical and experimental study of binary perturbation peaks with focus on peculiar retention behaviour and vanishing peaks in chiral liquid chromatography 991(2003)31

Pervaporation

Pervaporation-gas chromatography coupling for slurry samples. Determination of acetaldehyde and acetone in food 976(2002)399

Petroleum

see also Oils

Nordic laboratory intercomparison of supercritical fluid extraction for the determination of total petroleum hydrocarbon, polychlorinated biphenyls and polycyclic aromatic hydrocarbons in soil 958(2002)239

Determination of total petroleum hydrocarbons in soil by dynamic on-line supercritical fluid extraction with infrared photometric detection 986(2003)319

Optimized conditions for hydrocarbon group type analysis of base oils by thin-layer chromatography—flame ionisation detection 991(2003)255

Pharmaceutical analysis

Initial purification of recombinant botulinum neurotoxin fragments for pharmaceutical production using hydrophobic charge induction chromatography 952(2002)99

Determination of etoposide phosphate intermediates by gradient liquid chromatography using postcolumn derivatization with cuprammonium hydroxide 952(2002)283

Analysis of spectinomycin by liquid chromatography with pulsed electrochemical detection 953(2002)123

Continuous fractionation of enantiomer pairs in free solution using an electrophoretic analog of simulated moving bed chromatography 953(2002)263

Determination of khellin and visnagin in *Ammi visnaga* fruits by capillary electrophoresis 954(2002)291

Ion chromatographic determination of trace hydroxylamine in waste streams generated by a pharmaceutical reaction process 956(2002)261

Development of a validated capillary electrophoresis method for enantiomeric purity testing of dexchlorpheniramine maleate 958(2002)291

Comparison of capillary electrophoresis and reversed-phase liquid chromatography for determination of the enantiomeric purity of an M3 antagonist 959(2002)299

Identification and determination of geniposide contained in *Gardenia jasminoides* and in two preparations of mixed traditional Chinese medicines 961(2002)83

Immobilized liposome chromatography to study drug-membrane interactions. Correlation with drug absorption in humans 961(2002)113

Capillary electrophoresis with amperometric detection of curcumin in Chinese herbal medicine pretreated by solid-phase extraction 962(2002)117

Effect of the counter-anion type and concentration on the liquid chromatography retention of β -blockers 964(2002)179

Comparison of conventional microparticulate and a monolithic reversed-phase column for high-efficiency fast liquid chromatography of basic compounds 965(2002)51

Quantification of sugars and organic acids in hygroscopic pharmaceutical herbal dry extracts 968(2002)101

Optimization of the separation of *Vinca* alkaloids by nonaqueous capillary electrophoresis 968(2002)241

Application of pressurized liquid extraction technology to pharmaceutical solid dosage form analysis 968(2002)257

Applicability of mass spectrometry to detect coeluting impurities in high-performance liquid chromatography 971(2002)159

Enantioseparation of phenothiazines in cyclodextrin-modified micellar electrokinetic chromatography 971(2002)261

Capillary electrophoresis of baclofen with argon-ion laser-induced fluorescence detection 972(2002)289

Determination of five toxic alkaloids in two common herbal medicines with capillary electrophoresis 973(2002)243

Liquid chromatography-ion trap tandem mass spectrometry for the characterization of polypeptide antibiotics of the colistin series in commercial samples 976(2002)65

Evaluation of calibration data in capillary electrophoresis using artificial neural networks to increase precision of analysis 979(2002)59

Application of micellar electrokinetic chromatography to the determination of sultamicillin in oral pharmaceutical preparations 979(2002)315

Optimization and validation of a capillary zone electrophoretic method for the analysis of several angiotensin-II-receptor antagonists 979(2002)323

Peak compression effects in capillary electrochromatography of basic drug substances using a strong cation-exchanger 979(2002)335

Rapid screening of pK_a values of pharmaceuticals by pressureassisted capillary electrophoresis combined with short-end injection 979(2002)369

Erratum to "Effect of the counter-anion type and concentration on the liquid chromatography regention of β -blockers" [J. Chromatogr. A, 964 (2002) 179–187] 982(2002)313

Optimization and validation of a micellar electrokinetic chromatographic method for the analysis of several angiotensin-II-receptor antagonists 984(2003)135

Fast supercritical fluid extraction and high-resolution gas chromatography with electron-capture and flame photometric detection for multiresidue screening of organochlorine and organophosphorus pesticides in Brazil's medicinal plants 985(2003)159

Gas chromatography with mass spectrometric, atomic emission and Fourier transform infrared spectroscopic detection as complementary analytical techniques for the identification of unknown impurities in pharmaceuticals 985(2003)275

Determination of the distribution of molecular masses of sodium hyaluronate by high-performance anion-exchange chromatography 986(2003)67

Simultaneous determination of water-soluble vitamins in a vitamin-enriched drink by an in-capillary enzyme reaction method 986(2003)153

Separation and determination of phenylpropanoid glycosides from *Pedicularis* species by capillary electrophoresis 986(2003)163

Validation of high-performance liquid chromatography methods for pharmaceutical analysis. Understanding the differences and similarities between validation requirements of the US Food and Drug Administration, the US Pharmacopeia and the International Conference on Harmonization 987(2003)57

Mass spectrometry-compatible ICH (International Conference on Harmonization) impurity analysis with a high-pH mobile phase. Advantages and pitfalls 987(2003)283

Quantitation of the enantiomers of ofloxacin by capillary electrophoresis in the parts per billion concentration range for in vitro drug absorption studies 988(2003)135

Systematic development and validation of stability indicating micellar electrokinetic chromatography methods for early stage drug candidates 988(2003)297

Rapid and simultaneous analysis of some bioactive components in *Eucommia ulmoides* by capillary electrophoresis 989(2003)303

Enantioseparation of basic pharmaceutical compounds by capillary electrophoresis using sulfated cyclodextrins.

Application to E-6006, a novel antidepressant 990(2003)91

Analysis of the active components of silymarin 990(2003)239

Selective separation of active inhibitors of epidermal growth factor receptor from Caragana Jubata by molecularly imprinted solid-phase extraction 991(2003)151

Comparing micellar electrokinetic chromatography and microemulsion electrokinetic chromatography for the analysis of preservatives in pharmaceutical and cosmetic products 993(2003)153

Development of a capillary electrophoretic method for the analysis of amino acids containing tablets 993(2003)165

Enantiomeric separation of acidic compounds of pharmaceutical interest by capillary electrochromatography employing glycopeptide antibiotic stationary phases 994(2003)227

Development and validation of an improved method for the analysis of vancomycin by liquid chromatography. Selectivity of reversed-phase columns towards vancomycin components 996(2003)115

Development and validation of a capillary electrophoresis—indirect photometric detection method for the determination of the non-UV-absorbing 1,4-dideoxy-1,4-imino-p-arabinitol in active pharmaceutical ingredients, solutions and tablets using an internal standard 996(2003)213

Use of solid-phase microextraction coupled with gas chromatography for the determination of residual solvents in pharmaceutical products 999(2003)195

Pharmacokinetics

Pharmacokinetic study of free mangiferin in rats by microdialysis coupled with microbore high-performance liquid chromatography and tandem mass spectrometry 987(2003)367

Phase fluctuation chromatography

Composition analysis of poly(ethylene glycol)–poly(L-lactide) diblock copolymer studied by two-dimensional column chromatography 966(2002)41

Phaseolus spp.

Characterisation of legumes by enzymatic hydrolysis, microdialysis sampling, and micro-high-performance anion-exchange chromatography with electrospray ionisation mass spectrometry 992(2003)67

Phase ratio

Evaluation of extended light path capillary and etched capillary for use in open tubular capillary electrochromatography 961(2002)285

Phase-transfer catalysis

Phase-transfer catalytic determination of phenols as methylated derivatives by gas chromatography with flame ionization and mass-selective detection 983(2003)215

pH effects

Method for measuring the logarithm of the octanol-water partition coefficient by using short octadecyl-poly(vinyl alcohol) high-performance liquid chromatography columns 952(2002)47

Change of mobile phase pH during gradient reversed-phase chromatography with 2,2,2-trifluoroethanol-water as mobile phase and its effect on the chromatographic hydrophobicity index determination 954(2002)77

On-line pH modification of carbonate eluents using an electrolytic potassium hydroxide generator for ion chromatography 957(2002)165

Dual gradient ion-exchange chromatography improved refolding yield of lysozyme 959(2002)113

Study on protein adsorption kinetics to a dye-ligand adsorbent by the pore diffusion model 964(2002)35

Retention of alkali, alkaline earth and transition metals on an itaconic acid cation-exchange column. Eluent pH, ionic strength and temperature effects upon selectivity 964(2002)113

New equations describing the combined effect of pH and organic modifier concentration on the retention in reversed-phase liquid chromatography 971(2002)47

Influence of mobile phase acid—base equilibria on the chromatographic behaviour of protolytic compounds (Review) 982(2002)1

Ammonium hydrogencarbonate, an excellent buffer for the analysis of basic drugs by liquid chromatography-mass spectrometry at high pH 987(2003)211

Mass spectrometry-compatible ICH (International Conference on Harmonization) impurity analysis with a high-pH mobile phase. Advantages and pitfalls 987(2003)283

Capillary electrophoretic separation of enantiomers in a high-pH background electrolyte by means of the single-isomer chiral resolving agent octa(6-*O*-sulfo)-γ-cyclodextrin 987(2003)459

Influencing electroosmotic flow and selectivity in open tubular electrochromatography by tetrakis(pentafluorophenyl)porphyrin as capillary wall modifier 990(2003)111

Pheochromocytoma cell line

Direct monitoring of the expression of the green fluorescent protein—extracellular signal-regulated kinase 2 fusion protein in transfected cells using capillary electrophoresis with laser-induced fluorescence detection 976(2002)87

pH gradients

High-performance cation-exchange chromatofocusing of proteins 991(2003)117

pH measurements

Immobilized artificial membrane liquid chromatography: proposed guidelines for technical optimization of retention measurements 953(2002)39

Phenol-formaldehyde resins

Pyrolysis-gas chromatography-mass spectrometry of cured phenolic resins 993(2003)131

Phosphatidylcholine stationary phases

Creation and characteristics of phosphatidylcholine stationary phases for the chromatographic separation of inorganic anions 997(2003)237

Photocatalysis

Ion trap tandem mass spectrometric identification of thiabendazole phototransformation products on titanium dioxide 984(2003)59

Photochemical reactors

Use of an on-line, precolumn photochemical reactor in highperformance liquid chromatography of naphthodianthrones in *Hypericum perforatum* preparations 987(2003)181

Photochemically induced fluorimetric detection

Simultaneous determination of neutral and acidic pharmaceuticals in wastewater by high-performance liquid chromatography—post-column photochemically induced fluorimetry 993(2003)29

Photodegradation

Photolysis of polychlorinated biphenyls by solid-phase microextraction. "On-fibre" versus aqueous photodegradation 963(2002)37

On-fiber photodegradation after solid-phase microextraction of p,p'-DDT and two of its major photoproducts, p,p'-DDE and p,p'-DDD 985(2003)175

Photolysis

Photolysis of polychlorinated biphenyls by solid-phase microextraction. "On-fibre" versus aqueous photodegradation 963(2002)37

Phototransformation

Aquatic phototransformation study of the antifouling agent Sea-Nine 211: identification of byproducts and the reaction pathway by gas chromatography—mass spectroscopy 959(2002)215

Phytochemical analysis

Chemical analysis of *Ginkgo biloba* leaves and extracts (Review) 967(2002)21

Phytoremediation

New procedure for selective extraction of polycyclic aromatic hydrocarbons in plants for gas chromatographic-mass spectrometric analysis 958(2002)1

Pichia pastoris

Initial purification of recombinant botulinum neurotoxin fragments for pharmaceutical production using hydrophobic charge induction chromatography 952(2002)99

Pine sapwood

Analyses of the wood preservative component *N*-cyclohexyl-diazeniumdioxide in impregnated pine sapwood by direct thermal desorption–gas chromatography–mass spectrometry 953(2002)199

Piper guineense

Aroma compound analysis of *Piper nigrum* and *Piper guineense* essential oils from Cameroon using solid-phase microextraction—gas chromatography, solid-phase microextraction—gas chromatography—mass spectrometry and olfactometry 976(2002)265

Piper nigrum

Aroma compound analysis of *Piper nigrum* and *Piper guineense* essential oils from Cameroon using solid-phase microextraction—gas chromatography, solid-phase microextraction—gas chromatography—mass spectrometry and olfactometry 976(2002)265

Planar chromatography

see also Thin-layer chromatography

Rotation planar extraction and rotation planar chromatography of oak (*Quercus robur* L.) bark 991(2003)267

Thin-layer chromatography: challenges and opportunities (Review) 1000(2003)963

Progress in forced-flow planar chromatography (Review) 1000(2003)985

Planar electrochromatography

Role of buffer concentration and applied voltage in obtaining a good separation in planar electrochromatography 983(2003)247

Planar extraction

Rotation planar extraction and rotation planar chromatography of oak (*Quercus robur* L.) bark 991(2003)267

Planarity selectivity

Chromatographic shape selectivity with carbon dioxide—acetonitrile mobile phases. Effect of mobile phase composition and density 971(2002)61

Plant materials

see also Special Issue Index

Capillary electrophoretic separation of phenolic diterpenes from rosemary 953(2002)251

Determination of khellin and visnagin in *Ammi visnaga* fruits by capillary electrophoresis 954(2002)291

Screening of *Catharanthus roseus* secondary metabolites by high-performance liquid chromatography 955(2002)87

On-line coupling of capillary isotachophoresis and capillary zone electrophoresis for the determination of flavonoids in methanolic extracts of *Hypericum perforatum* leaves or flowers 958(2002)261

Volatile components from Anthriscus sylvestris (L.) Hoffm. 966(2002)233

Sample handling strategies for the determination of biophenols in food and plants (Review) 975(2002)71

Aroma compound analysis of *Piper nigrum* and *Piper guineense* essential oils from Cameroon using solid-phase microextraction—gas chromatography, solid-phase microextraction—gas chromatography—mass spectrometry and olfactometry 976(2002)265

Monitoring polychlorinated biphenyls in pine needles using supercritical fluid extraction as a pretreatment method 976(2002)393

Analysis of anthraquinones in *Rubia tinctorum* L. by liquid chromatography coupled with diode-array UV and mass spectrometric detection 978(2002)119

Separation of andrographolide and neoandrographolide from the leaves of *Andrographis paniculata* using high-speed countercurrent chromatography 984(2003)147

Fast supercritical fluid extraction and high-resolution gas chromatography with electron-capture and flame photometric detection for multiresidue screening of organochlorine and organophosphorus pesticides in Brazil's medicinal plants 985(2003)159 Simultaneous analysis of caffeic acid derivatives and alkamides in roots and extracts of *Echinacea purpurea* by high-performance liquid chromatography-photodiode array detection-electrospray mass spectrometry 986(2003)73

Isolation and identification of four flavonoid constituents from the seeds of *Oroxylum indicum* by high-speed counter-current chromatography 988(2003)95

Development and optimization of a method for the analysis of low-molecular-mass organic acids in plants by capillary electrophoresis with indirect UV detection 989(2003)285

Rapid and simultaneous analysis of some bioactive components in *Eucommia ulmoides* by capillary electrophoresis 989(2003)303

Erratum to "Reproducibility of the high-performance liquid chromatographic fingerprints obtained from two soybean cultivars and a selected progeny". [J. Chromatogr. A, 915 (2001) 61–74] 989(2003)317

Analysis of catechins in extracts of *Cistus* species by microemulsion electrokinetic chromatography 990(2003)215

Separation of polyphenolic compounds extracted from plant matrices using capillary electrophoresis 990(2003)225

Rotation planar extraction and rotation planar chromatography of oak (*Quercus robur* L.) bark 991(2003)267

Preparative isolation and purification of two isoflavones from *Astragalus membranaceus* Bge. var. *mongholicus* (Bge.) Hsiao by high-speed counter-current chromatography 992(2003)193

Rapid analytical method for the determination of pesticide residues in sunflower seeds based on focused microwave-assisted Soxhlet extraction prior to gas chromatography-tandem mass spectrometry 993(2003)121

Identification of acylated xanthone glycosides by liquid chromatography-atmospheric pressure chemical ionization mass spectrometry in positive and negative modes from the lichen *Umbilicaria proboscidea* 995(2003)109

Extraction and quantitative analysis of 1-aminocyclopropane-1-carboxylic acid in plant tissue by gas chromatography coupled to mass spectrometry 993(2003)79

Separation and purification of glucosinolates from crude plant homogenates by high-speed counter-current chromatography 996(2003)85

Liquid chromatography with ultraviolet absorbance–mass spectrometric detection and with nuclear magnetic resonance spectrometry: a powerful combination for the on-line structural investigation of plant metabolites (Review) 1000(2003)437

Strategies for the determination of bioactive phenols in plants, fruit and vegetables (Review) 1000(2003)657

Plasma substitute

Determining the molar mass of a plasma substitute succinylated gelatin by size exclusion chromatography—multi-angle laser light scattering, sedimentation equilibrium and conventional size exclusion chromatography 957(2002)139

Plate height

Expressions for the C-term in the presence of pore flow 965(2002)75

Novel general expressions that describe the behavior of the height equivalent to a theoretical plate in chromatographic systems involving electrically-driven and pressure-driven flows 979(2002)447

Experimental Van Deemter plots of shear-driven liquid chromatographic separations in disposable microchannels 987(2003)39

Separation of vanadium isotopes by ion-exchange chromatography 989(2003)175

Prediction of the plate height of capillary columns operated at any inlet pressure of the carrier gas by using few retention data measured under isobaric conditions 994(2003)103

Platinum digestion

Reproducible digestion method for ion-chromatographic analysis of anions in 30% hydrogen peroxide 956(2002)23

Poisson distribution

Contribution of the polymer standards' polydispersity to the observed band broadening in size-exclusion chromatography 986(2003)1

Polar-embedded phases

Characterization and comparison of the chromatographic performance of conventional, polar-embedded, and polar-endcapped reversed-phase liquid chromatography stationary phases 957(2002)149

Polar-endcapped phases

Characterization and comparison of the chromatographic performance of conventional, polar-embedded, and polar-endcapped reversed-phase liquid chromatography stationary phases 957(2002)149

Polarimetric detection

True or apparent reversal of elution order during chiral highperformance liquid chromatography monitored by a polarimetric detector under different mobile phase conditions 995(2003)79

Polarity measurements

Prediction of the retention in reversed-phase liquid chromatography using solute-mobile phase-stationary phase polarity parameters 955(2002)19

Pollen

Analysis of water extracts from airborne dust samples by capillary isotachophoresis 990(2003)303

Use of solid-phase micro-extraction as a sampling technique in the determination of volatiles emitted by flowers, isolated flower parts and pollen 998(2003)229

Polyarylamide fibers

Characterization of polyarylamide fibers by inverse gas chromatography 962(2002)153

Polybutadiene-silica stationary phases

Preparation of a polybutadiene stationary phase immobilized by γ radiation for reversed-phase high-performance liquid chromatography 987(2003)77

Polydispersity

Relations between the separation coefficient, longitudinal displacement and peak broadening in size exclusion chromatography of macromolecules 978(2002)109

Contribution of the polymer standards' polydispersity to the observed band broadening in size-exclusion chromatography 986(2003)1

Polyimide coating

Improvement of the long-term stability of polyimide-coated fused-silica capillaries used in capillary electrophoresis and capillary electrochromatography 961(2002)35

Polymer brush

Solvent effect on protein binding by polymer brush grafted onto porous membranes 953(2002)101

Polymer-coated synthetic fibres

Polymer-coated synthetic fibers designed for miniaturized sample preparation process 975(2002)105

Polymeric networks

Hypercross-linked polystyrene and its potentials for liquid chromatography: a mini-review (Review) 965(2002)65

Polymeric separation media

Copolymer solutions as separation media for DNA capillary electrophoresis (Review) 966(2002)1

Polymeric sorbents

Utilization of synergetic effect of weak interactions in the design of polymeric sorbents with high sorption selectivity 952(2002)71

Protein adsorption on novel acrylamido-based polymeric ionexchangers. IV. Effects of protein size on adsorption capacity and rate 971(2002)105

Polymer-filler interactions

Characterization of the interactions in polymer-filler systems by inverse gas chromatography 969(2002)255

Polymer-solvent interactions

Polymer–solvent interaction parameters in polymer solutions at high polymer concentrations 969(2002)245

Poly(methyloctylsiloxane) silica stationary phases

High-performance liquid chromatographic stationary phases based on poly(methyloctylsiloxane) immobilized on silica. III. Stability evaluations 987(2003)93

Polynomial model

Evaluation of size-exclusion chromatography and size-exclusion electrochromatography calibration curves 957(2002)127

Polysaccharide stationary phases

Screening approach for chiral separation of pharmaceuticals. Part II. Reversed-phase liquid chromatography 966(2002)119

Polystyrene stationary phases

Hypercrosslinked polystyrene as a novel type of highperformance liquid chromatography column packing material. Mechanisms of retention 987(2003)67

Pore diffusion

Analysis of diffusion models for protein adsorption to porous anion-exchange adsorbent 962(2002)29

Study on protein adsorption kinetics to a dye-ligand adsorbent by the pore diffusion model 964(2002)35

Influence of pressure on the chromatographic behavior of insulin variants under nonlinear conditions 988(2003)205

Pore flow

Expressions for the C-term in the presence of pore flow 965(2002)75

Pore size distribution

Novel general expressions that describe the behavior of the height equivalent to a theoretical plate in chromatographic systems involving electrically-driven and pressure-driven flows 979(2002)447

Porosity

Adsorption equilibria of butyl- and amylbenzene on monolithic silica-based columns 957(2002)111

Determination of the porosities of monolithic columns by inverse size-exclusion chromatography 975(2002)275

Influence of the particle porosity on chromatographic band profiles 989(2003)207

Porous graphitized carbon

Role of the Na⁺ ion on phenol derivatives/hydroxypropyl-β-cyclodextrin complex formation on porous graphitic carbon phase 955(2002)197

Study of polar and nonpolar substituted benzenes and aromatic isomers on carbon-coated zirconia and alkyl bonded phases 958(2002)121

On-line coupling of supercritical fluid extraction with highperformance liquid chromatography for the determination of explosives in vapour phases 963(2002)73 Simultaneous microanalysis of *N*-linked oligosaccharides in a glycoprotein using microbore graphitized carbon column liquid chromatography—mass spectrometry 968(2002)89

Eluotropic strength in non-aqueous liquid chromatography with porous graphitic carbon 973(2002)61

Structure-retention diagrams of ceramides established for their identification 973(2002)69

Ability of porous graphitic carbon to support electroosmotic flow in capillary electrochromatography 973(2002)177

Retention characteristics and practical applications of carbon sorbents (Review) 975(2002)229

Positional isomers

Separation of conjugated trienoic fatty acid isomers by capillary electrophoresis 985(2003)471

Non-aqueous capillary electrophoresis of the positional isomers of a sulfated monosaccharide 987(2003)467

Analysis of naphthalenesulfonate compounds by cyclodextrinmediated capillary electrophoresis with sample stacking 996(2003)205

Post-column reactors

Simple method for the quantitative examination of extra column band broadening in microchromatographic systems 986(2003)247

Potassium hydroxide generator

On-line pH modification of carbonate eluents using an electrolytic potassium hydroxide generator for ion chromatography 957(2002)165

Potentiometric detection

see also Electrochemical detection

Potentiometric detection of exogenic beta-adrenergic substances in liquid chromatography 973(2002)85

Precision

Evaluation of calibration data in capillary electrophoresis using artificial neural networks to increase precision of analysis 979(2002)59

Determination of recombinant hirudin structural deviants by capillary zone electrophoresis augmented with buffer additives 979(2002)217

Prediction of measurement precision of apparatus using a chemometric tool in electrochemical detection of high-performance liquid chromatography 986(2003)239

Precolumns

Role of the retaining precolumn in large-volume on-column injections of volatiles to gas chromatography 975(2002)95

Preconcentration

see also Clean-up methods, Extraction methods, Sample handling, Sample preparation and Special Issue Index

Acid-induced cloud point extraction and preconcentration of polycyclic aromatic hydrocarbons from environmental solid samples 962(2002)1

Sweeping: concentration mechanism and applications to highsensitivity analysis in capillary electrophoresis (Review) 965(2002)357

Preparative chromatography

see also Special Issue Index

Experimental investigation of the behavior of gas phase simulated moving beds 957(2002)211

Displacement chromatography of isomers and therapeutic compounds 959(2002)85

Preparative isolation and purification of calycosin from Astragalus membranaceus Bge. var. mongholicus (Bge.) Hsiao by high-speed counter-current chromatography 962(2002)243

Preparative isolation of polyphenolic compounds from *Vitis vinifera* by centrifugal partition chromatography 964(2002)123

Preparative liquid chromatography (Review) 965(2002)129

Preparative separation of isomeric sulfophthalic acids by conventional and pH-zone-refining counter-current chromatography 966(2002)111

Fiber optic multi-channel protein detector for use in preparative continuous annular chromatography 967(2002)183

Hydrophobic interaction ligand selection and scale-up of an expanded bed separation of an intracellular enzyme from *Saccharomyces cerevisiae* 968(2002)121

Preparative reversed-phase liquid chromatography of peptides. Isocratic two-step elution system for high loads on analytical columns 972(2002)87

Preparative reversed-phase liquid chromatography of proteins from rabbit skeletal troponin, a multi-protein complex 972(2002)101

Continuous purification of a clotting factor IX concentrate and continuous regeneration by preparative annular chromatography 972(2002)115

Purification of (+)-dihydromyricetin from leaves extract of *Ampelopsis grossedentata* using high-speed countercurrent chromatograph with scale-up triple columns 973(2002)217

Structure characterization of hyperbranched poly(ether amide)s. I. Preparative fractionation 976(2002)171

Enhancement of anion-exchange chromatography of DNA using compaction agents 984(2003)215

Preliminary characterization of anhydrous ethanol used in Brazil as automotive fuel 985(2003)367

Sequential fractionation procedure for the identification of potentially cytochrome P4501A-inducing compounds 986(2003)55

Modeling of preparative chromatography processes with slow intraparticle mass transport kinetics 988(2003)219

Comparison of preparative characteristics of micro open parallel plate separators and microbore columns for concentration of trace species by displacement chromatography 989(2003)3

Use of synthetic adsorbents in preparative normal-phase liquid chromatography 989(2003)19

Linear two-step gradient counter-current chromatography. Analysis based on a recursive solution of an equilibrium stage model 989(2003)31

Use of ultrasound to monitor the packing of large scale columns, the monitoring of medium compression and the passage of molecules, such as monoclonal antibodies, through the column bed during chromatography 989(2003)79

Multiobjective optimization of simulated moving bed and Varicol processes using a genetic algorithm 989(2003)95

Direct enzyme adsorption from an unclarified microbial feedstock using suspended bed chromatography 989(2003)109

Evaluation of protein-A chromatography media 989(2003)139

Reproducible preparative liquid chromatography columns 992(2003)41

Use of liquid chromatography-diode-array detection and mass spectrometry for rapid product identification in biotechnological synthesis of a hydroxyprogesterone 992(2003)85

Preparative isolation and purification of two isoflavones from *Astragalus membranaceus* Bge. var. *mongholicus* (Bge.) Hsiao by high-speed counter-current chromatography 992(2003)193

Erratum to "Sequential fractionation procedure for the identification of potentially cytochrome P4501A-inducing compounds". [J. Chromatogr. A, 986 (2003) 55–66] 993(2003)223

Scale-up study of high osmotic pressure chromatography for separation of $poly(\varepsilon-caprolactone)$ 996(2003)71

Optimization of a preparative capillary gas chromatography—mass spectrometry system for the isolation and harvesting of individual polycyclic aromatic hydrocarbons 996(2003)163

Preparative electrophoresis

Continuous fractionation of enantiomer pairs in free solution using an electrophoretic analog of simulated moving bed chromatography 953(2002)263

Effect of feed zone width on product purity in preparative-scale, continuous free-flow isoelectric focusing separation of enantiomers 979(2002)123

Preparative-scale isoelectric trapping separations using a modified Gradiflow unit 979(2002)155

Design of a new, twelve-channel electrophoretic apparatus based on the Gradiflow technology 989(2003)65

Preparative-scale isoelectric trapping enantiomer separations 989(2003)73

Pressure-assisted capillary electrophoresis

Rapid screening of pK_a values of pharmaceuticals by pressureassisted capillary electrophoresis combined with short-end injection 979(2002)369

Pressure-induced retention

Influence of pressure on the chromatographic behavior of insulin variants under nonlinear conditions 988(2003)205

Pressure programming

Prediction of the plate height of capillary columns operated at any inlet pressure of the carrier gas by using few retention data measured under isobaric conditions 994(2003)103

Pressure-tunable selectivity

Practical approaches to fast gas chromatography-mass spectrometry (Review) 1000(2003)153

Pressurized capillary electrochromatography

Separation of peptides by pressurized capillary electrochromatography 987(2003)453

Pressurized liquid extraction

New sample preparation technique for the determination of avoparcin in pressurized hot water extracts from kidney samples 954(2002)41

Some aspects of the analysis of environmental pollutants in sediments using pressurized liquid extraction and gas chromatography-mass spectrometry 957(2002)59

Analysis of Metribuzin and transformation products in soil by pressurized liquid extraction and liquid chromatographic-tandem mass spectrometry 957(2002)79

Online coupling of pressurized liquid extraction, solid-phase extraction and high-performance liquid chromatography for automated analysis of proanthocyanidins in malt 958(2002)9

Pressurized liquid extraction followed by liquid chromatography—mass spectrometry for the determination of alkylphenolic compounds in river sediment 959(2002)15

In-line pressurized-fluid extraction–solid-phase extraction for determining phenolic compounds in grapes 968(2002)1

Application of pressurized liquid extraction technology to pharmaceutical solid dosage form analysis 968(2002)257

Current use of pressurised liquid extraction and subcritical water extraction in environmental analysis (Review) 975(2002)3

Static extraction with modified pressurized liquid and on-line fluorescence monitoring. Independent matrix approach for the removal of polycyclic aromatic hydrocarbons from environmental solid samples 978(2002)49

Pressurized liquid extraction of active ingredients (ginsenosides) from medicinal plants using non-ionic surfactant solutions 983(2003)153

Pressurized liquid extraction of selected molecular biomarkers in deep sea sediments used as proxies in paleoceanography 989(2003)197

Pressurized mobilisation

Determination of electroosmotic flow mobility with a pressuremediated dual-ion technique for capillary electrophoresis with conductivity detection using organic solvents 960(2002)199

Principal component analysis

Minimal number of chromatographic test parameters for the characterisation of reversed-phase liquid chromatographic stationary phases 954(2002)99

Chemometric detection of thermally degraded samples in the analysis of drugs of abuse with gas chromatography–Fourier-transform infrared spectroscopy 962(2002)161

Comparison of methods for characterization of reversed-phase liquid chromatographic selectivity 965(2002)301

Comparison of various extraction techniques for the determination of polycyclic aromatic hydrocarbons in worms 975(2002)165

Chemometric comparison of recent chromatographic and electrophoretic methods in a quantitative structure-retention and retention-activity relationship context 986(2003)227

Hypercrosslinked polystyrene as a novel type of highperformance liquid chromatography column packing material. Mechanisms of retention 987(2003)67

Binding of environmental pollutants to the corn protein zein studied by high-performance liquid chromatography 987(2003)403

Chromatographic classification and comparison of commercially available reversed-phase liquid chromatographic columns using principal component analysis 994(2003)13

High-speed peak matching algorithm for retention time alignment of gas chromatographic data for chemometric analysis 996(2003)141

Experimental comparison of three monoclonal antibodies for the class-selective immunoextraction of triazines. Correlation with molecular modeling and principal component analysis studies 999(2003)3

Probability-plot regression

How to estimate moments and quantiles of environmental data sets with non-detected observations? A case study on volatile organic compounds in marine water samples 975(2002)123

Process monitoring

Applications of ion chromatography in cane sugar research and process problems 956(2002)187

Process monitoring of anaerobic azo dye degradation by highperformance liquid chromatography—diode array detection continuously coupled to membrane filtration sampling modules 987(2003)395

Production rate

Evaluation of protein-A chromatography media 989(2003)139

Programmed-temperature ...

see also Temperature programming

Programmed-temperature vaporiser

Large-volume programmed-temperature vaporiser injection for fast gas chromatography with electron capture and mass specrometric detection of polybrominated diphenyl ethers 991(2003)241

Determination of endocrine-disrupting compounds in water samples by on-line solid-phase extraction-programmed-temperature vaporisation-gas chromatography-mass spectrometry 998(2003)41

Protein adsorption

Analysis of diffusion models for protein adsorption to porous anion-exchange adsorbent 962(2002)29

Protein binding

Solvent effect on protein binding by polymer brush grafted onto porous membranes 953(2002)101

Protein database searches

Investigating the effects of protein patterns on microorganism identification by high-performance liquid chromatography-mass spectrometry and protein database searches 976(2002)103

Protein folding

Dual gradient ion-exchange chromatography improved refolding yield of lysozyme 959(2002)113

Characterization of the refolding and reassembly of an integral membrane protein OmpF porin by low-angle laser light scattering photometry coupled with high-performance gel chromatography 961(2002)137

Protein partitioning

Protein partitioning in thermoseparating systems of a charged hydrophobically modified ethylene oxide polymer 983(2003)133

Proteolysis

Miniaturized on-line proteolysis-capillary liquid chromatography-mass spectrometry for peptide mapping of lactate dehydrogenase 998(2003)83

Proteomics

Automated nanoflow liquid chromatography-tandem mass spectrometry for a differential display proteomic study on *Xenopus laevis* neuroendocrine cells 976(2002)113

Microcolumns with self-assembled particle frits for proteomics 979(2002)233

Protein proteolysis and the multi-dimensional electrochromatographic separation of histidine-containing peptide fragments on a chip 984(2003)97

Recent liquid chromatographic—(tandem) mass spectrometric applications in proteomics (Review) 1000(2003)589

Pseudomona aeruginosa

Capillary electrophoresis study of outer membrane proteins of *Pseudomonas* strains upon antibiotic treatment 979(2002)277

Pseudo-stationary phases

Novel alkyl-modified anionic siloxanes as pseudostationary phases for electrokinetic chromatography. III. Performance in organic-modified buffers 959(2002)255

Separation of opiate alkaloids by electrokinetic chromatography with sulfated-cyclodextrin as a pseudo-stationary phase 985(2003)493

Mixed-mode electrokinetic chromatography of aromatic bases with two pseudo-stationary phases and pH control 997(2003)207

Pulsed amperometric detection

see also Electrochemical detection

Use of disposable gold working electrodes for cation chromatography-integrated pulsed amperometric detection of sulfur-containing amino acids 997(2003)73

Some factors affecting separation and detection of amino acids by high-performance anion-exchange chromatography with integrated pulsed amperometric detection 997(2003)145

Pulse-discharge helium detection

Application of a pulse-discharge helium detector to the determination of neon in air and water 968(2002)263

Pumps

Safety concerns in ultrahigh pressure capillary liquid chromatography using air-driven pumps 991(2003)189

Purge-and-trap methods

Use of experimental design for the purge-and-trap-gas chromatography—mass spectrometry determination of methyl *tert.*-butyl ether, *tert.*-butyl alcohol and BTEX in groundwater at trace level 975(2002)113

Comparison of solid-phase microextraction and purge-and-trap methods for the analysis of the volatile fraction of butter 985(2003)117

Simultaneous determination of methyl *tert.*-butyl ether and its degradation products, other gasoline oxygenates and benzene, toluene, ethylbenzene and xylenes in Catalonian groundwater by purge-and-trap-gas chromatography–mass spectrometry 995(2003)171

Determination of methyl *tert.*-butyl ether and *tert.*-butyl alcohol in seawater samples using purge-and-trap enrichment coupled to gas chromatography with atomic emission and mass spectrometric detection 999(2003)81

Pyrolysis

Simple off-line flash pyrolysis procedure with in situ silylation for the analysis of hydroxybenzenes in humic acids and coals 967(2002)235

Pyrolysis-gas chromatography-mass spectrometry of cured phenolic resins 993(2003)131



Quality control

 $\begin{array}{lll} C_2 - C_8 & Hydrocarbon \ measurement \ and \ quality \ control \\ procedures \ at \ the \ Global \ Atmosphere \ Watch \ Observatory \\ Hohenpeissenberg & 953(2002)175 \end{array}$

Computerized design of separation strategies by reversed-phase liquid chromatography: development of DryLab software (Review) 965(2002)175

Therapeutic drug monitoring of lamotrigine using capillary electrophoresis. Evaluation of assay performance and quality assurance over a 4-year period in the routine arena 979(2002)353

Determination of the dissociation constants (pK_a) of basic acetylcholinesterase inhibitors by reversed-phase liquid chromatography 958(2002)59

Quantitative structure-retention relationships

see Structure-retention relationships

Quercus ilex

Relaxed eddy accumulation, a new technique for measuring emission and deposition fluxes of volatile organic compounds by capillary gas chromatography and mass spectrometry 985(2003)283

Ouercus robur

Rotation planar extraction and rotation planar chromatography of oak (*Quercus robur* L.) bark 991(2003)267



Radiocarbon dating

Rapid isolation of biomarkers for compound specific radiocarbon dating using high-performance liquid chromatography and flow injection analysis—atmospheric pressure chemical ionisation mass spectrometry 978(2002)129

Rate constants

Thermodynamics and kinetics of solute transfer in reversedphase liquid chromatography 987(2003)3

Monitoring dediazoniation product formation by highperformance liquid chromatography after derivatization 989(2003)221

Rauvolfia serpentina

High-performance liquid chromatographic, capillary electrophoretic and capillary electrophoretic-electrospray ionisation mass spectrometric analysis of selected alkaloid groups (Review) 967(2002)85

Reaction monitoring

Quantitation and test of enantiomeric purity of the Lketohexoses by liquid chromatography with dual refractive index and laser-based chiroptical detection 987(2003)439

Reduced pressure steam distillation

Comparison of different extraction methods for the analysis of fragrances from Lavandula species by gas chromatography—mass spectrometry 982(2002)31

Reference materials

The role of chromatography in the hunt for red tide toxins (Review) 1000(2003)527

Refractive index detection

A comparative study of commercial liquid chromatographic detectors for the analysis of underivatized amino acids 961(2002)9

Regression analysis

Simultaneous modeling of the Kovats retention indices on OV-1 and SE-54 stationary phases using artificial neural networks 955(2002)273

Non-linear calibration functions in ion chromatography with suppressed conductivity detection using hydroxide eluents 957(2002)99

Combination of linear solvent strength model and quantitative structure–retention relationships as a comprehensive procedure of approximate prediction of retention in gradient liquid chromatography 962(2002)41

Prediction of electrophoretic mobilities of alkyland alkenylpyridines in capillary electrophoresis using artificial neural networks 971(2002)207

Classification and regression tree analysis for molecular descriptor selection and retention prediction in chromatographic quantitative structure–retention relationship studies 988(2003)261

Advances in methodology for the validation of methods according to the International Organization for Standardization. Application to the determination of benzoic and sorbic acids in soft drinks by high-performance liquid chromatography 992(2003)11

Determination of lanthanides in synthetic standards by reversedphase high-performance liquid chromatography with the aid of a weighted least-squares regression model. Estimation of method sensitivities and detection limits 997(2003)171

Two-step multivariate adaptive regression splines for modeling a quantitative relationship between gas chromatography retention indices and molecular descriptors 998(2003)155

Relative buffer zone length

Study of flow profile distortions and efficiency in counter pressure moderated partial filling micellar electrokinetic chromatography in relation to the relative buffer zone lengths 960(2002)209

Relative humidity

The application of molecular modelling to the interpretation of inverse gas chromatography data 969(2002)49

Use of inverse gas chromatography to characterize cotton fabrics and their interactions with fragrance molecules at controlled relative humidity 969(2002)103

Relaxed eddy accumulation

Relaxed eddy accumulation, a new technique for measuring emission and deposition fluxes of volatile organic compounds by capillary gas chromatography and mass spectrometry 985(2003)283

Reproducibility

Retention time reproducibility in comprehensive twodimensional gas chromatography using cryogenic modulation. An intralaboratory study 968(2002)161

Reproducible preparative liquid chromatography columns 992(2003)41

Resolution

Computerized design of separation strategies by reversed-phase liquid chromatography: development of DryLab software (Review) 965(2002)175

Net analyte signal as a deconvolution-oriented resolution criterion in the optimisation of chromatographic techniques 991(2003)47

Resolution map

Computerized design of separation strategies by reversed-phase liquid chromatography: development of DryLab software (Review) 965(2002)175

Response stability

Alternative calibration approaches to compensate the effect of co-extracted matrix components in liquid chromatography– electrospray ionisation tandem mass spectrometry analysis of pesticide residues in plant materials 973(2002)13

Response surface

Prediction of internal standards in reversed-phase liquid chromatography. II. Selectivity optimization and internal standard prediction for the quantitation of estradiol and levonorgestrel in a transdermal drug delivery formulation based on the linear solvation energy relationships 954(2002)159

Response surface modelling

New equations describing the combined effect of pH and organic modifier concentration on the retention in reversed-phase liquid chromatography 971(2002)47

Restricted access media

Bio-compatible in-tube solid-phase microextraction capillary for the direct extraction and high-performance liquid chromatographic determination of drugs in human serum 963(2002)325 Column-switching system with restricted access pre-column packing for an integrated sample cleanup and liquid chromatographic—mass spectrometric analysis of alkylphenolic compounds and steroid sex hormones in sediment 971(2002)37

Determination of amoxycillin in human plasma by direct injection and coupled-column high-performance liquid chromatography 987(2003)235

Retention

Effect of molecular interactions on retention and selectivity in reversed-phase liquid chromatography 960(2002)69

Column selectivity from the perspective of the solvation parameter model (Review) 965(2002)263

Study of tryptophan enantiomer binding to a teicoplanin-based stationary phase using the perturbation technique. Investigation of the role of sodium perchlorate in solute retention and enantioselectivity 986(2003)45

Modeling of adsorption in hydrophobic interaction chromatography systems using a preferential interaction quadratic isotherm 989(2003)47

Retention behaviour

Systematic characterisation of long-chain aliphatic esters of wool wax by gas chromatography-electron impact ionisation mass spectrometry 952(2002)193

Retention behavior of common mono- and divalent cations on calcinated silica gel columns in ion chromatography with conductimetric detection and the use of nitric acid, containing crown ethers, as eluents 956(2002)159

Effects of temperature on retention of chiral compounds on a ristocetin A chiral stationary phase 958(2002)89

Modeling of retention behavior in capillary electrochromatography from chromatographic and electrophoretic data 959(2002)241

Retention of ionizable compounds in high-performance liquid chromatography. 14. Acid-base pK values in acetonitrile—water mobile phases 964(2002)55

Gradient elution in normal-phase high-performance liquid chromatographic systems 965(2002)239

Retention behaviour of polystyrene oligomers in reversed-phase liquid chromatography 967(2002)173

Structure-retention diagrams of ceramides established for their identification 973(2002)69

Application of the reversed-phase liquid chromatographic model to describe the retention behaviour of polydisperse macromolecules in gradient and isocratic liquid chromatography 988(2003)53

Theoretical and experimental study of binary perturbation peaks with focus on peculiar retention behaviour and vanishing peaks in chiral liquid chromatography 991(2003)31

Retention-activity relationships

Chemometric comparison of recent chromatographic and electrophoretic methods in a quantitative structure-retention and retention-activity relationship context 986(2003)227

Retention characteristics

Retention characteristics and practical applications of carbon sorbents (Review) 975(2002)229

Retention data

Repeatability and reproducibility of retention data and band profiles on six batches of monolithic columns 960(2002)19

Retention factors

Immobilized artificial membrane liquid chromatography: proposed guidelines for technical optimization of retention measurements 953(2002)39

Estimation of soil organic partition coefficients: from retention factors measured by soil column chromatography with water as eluent 968(2002)7

New equations describing the combined effect of pH and organic modifier concentration on the retention in reversed-phase liquid chromatography 971(2002)47

Comparison of monomeric and polymeric chiral stationary phases 987(2003)111

Behavior of neutral solutes in pressurized flow driven electrochromatography using a mixed stationary phase of ODS and anion-exchange 995(2003)209

Retention increment

Extraordinary chiral discrimination in inclusion gas chromatography. Thermodynamics of enantioselectivity between a racemic perfluorodiether and a modified γ -cyclodextrin (Review) 1000(2003)311

Retention indices

Temperature effects on the retention of *n*-alkanes and arenes in helium–squalane gas–liquid chromatography. Experiment and molecular simulation 954(2002)181

Gas chromatographic determination of vapour pressure and related thermodynamic properties of monoterpenes and biogenically related compounds 955(2002)105

Simultaneous modeling of the Kovats retention indices on OV-1 and SE-54 stationary phases using artificial neural networks 955(2002)273

Temperature dependence of Kováts indices in gas chromatography revisited 973(2002)135

Minimum in the temperature dependence of the Kováts retention indices of nitroalkanes and alkanenitriles on an apolar phase 985(2003)11

Retention index calculation without *n*-alkanes—the virtual carbon number 993(2003)187

Two-step multivariate adaptive regression splines for modeling a quantitative relationship between gas chromatography retention indices and molecular descriptors 998(2003)155

Retention mechanisms

Capillary electrochromatography of peptides on a column packed with tentacular weak cation-exchanger particles 953(2002)239

Chromatographic behaviour of selected steroids and their inclusion complexes with β -cyclodextrin on octadecylsilica stationary phases with different carbon loads 955(2002)71

Extended thermodynamic approach to ion interaction chromatography: a thorough comparison with the electrostatic approach, and further quantitative validation 958(2002)51

Analysis of mono- and diesters of *o*-phthalic acid by solidphase extractions with polystyrene–divinylbenzene-based polymers 963(2002)393

Analysis of the *Cinchona* alkaloids by high-performance liquid chromatography and other separation techniques (Review) 967(2002)1

Interaction mechanisms on octadecyl packed columns in subcritical fluid chromatography with CO₂-modifier mobile phases 975(2002)335

Quantitative structure–retention relationships in comparative studies of behavior of stationary phases under high-performance liquid chromatography and capillary electrochromatography conditions 977(2002)193

Relations between the separation coefficient, longitudinal displacement and peak broadening in size exclusion chromatography of macromolecules 978(2002)109

Retention mechanism of poly(ethylene oxide) in reversed-phase and normal-phase liquid chromatography 986(2003)191

Retention mechanism of fatty alcohol ethoxylates in reversedphase liquid chromatography 986(2003)199

Thermodynamics and kinetics of solute transfer in reversedphase liquid chromatography 987(2003)3

Hypercrosslinked polystyrene as a novel type of highperformance liquid chromatography column packing material. Mechanisms of retention 987(2003)67

Separation of polar compounds using carbon columns (Review) 989(2003)183

Analysis and critical comparison of the reversed-phase and ionexchange contributions to retention on polybutadiene coated zirconia and octadecyl silane bonded silica phases 996(2003)13

Creation and characteristics of phosphatidylcholine stationary phases for the chromatographic separation of inorganic anions 997(2003)237

Retention-mobile phase composition relationships

Correlation of retention parameters of pesticides in normal- and reversed-phase systems and their utilization for the separation of a mixture of 14 triazines and urea herbicides by means of two-dimensional thin-layer chromatography 961(2002)277

Mechanistic molecular model of liquid–solid chromatography. Retention–eluent composition relationships (Review) 965(2002)109

Retention models

Ethylenediamine as eluent component in cation chromatography. Predictive and comparative study for analysis of alkaline earth ions 955(2002)1

Theory of liquid chromatography of mono- and difunctional macromolecules. I. Studies in the critical interaction mode 955(2002)9

Comparative study of the linear solvation energy relationship, linear solvent strength theory, and typical-conditions model for retention prediction in reversed-phase liquid chromatography 965(2002)3

Predicting the behaviour of polydisperse polymers in liquid chromatography under isocratic and gradient conditions 965(2002)93

Optimization of artificial neural networks used for retention modelling in ion chromatography 973(2002)47

Salt effects on the interaction of an amphiphilic model molecule with immobilized phosphatidylcholine monolayers 977(2002)185

Application of the reversed-phase liquid chromatographic model to describe the retention behaviour of polydisperse macromolecules in gradient and isocratic liquid chromatography 988(2003)53

Prediction of the plate height of capillary columns operated at any inlet pressure of the carrier gas by using few retention data measured under isobaric conditions 994(2003)103

Retention prediction

Prediction of the retention in reversed-phase liquid chromatography using solute-mobile phase-stationary phase polarity parameters 955(2002)19

Ion-pair reversed-phase high-performance liquid chromatography analysis of oligonucleotides: Retention prediction 958(2002)167

Column selectivity in reversed-phase liquid chromatography. I. A general quantitative relationship 961(2002)171

Column selectivity in reversed-phase liquid chromatography. II. Effect of a change in conditions 961(2002)195

Combination of linear solvent strength model and quantitative structure–retention relationships as a comprehensive procedure of approximate prediction of retention in gradient liquid chromatography 962(2002)41

Comparative study of the linear solvation energy relationship, linear solvent strength theory, and typical-conditions model for retention prediction in reversed-phase liquid chromatography 965(2002)3

Prediction of chromatographic retention, pK_a values and optimization of the separation of polyphenolic acids in strawberries 975(2002)299

Prediction of internal standards in reversed-phase liquid chromatography. III. Evaluation of an alternative solvation parameter model to correlate and predict the retention of ionizable compounds 982(2002)209

Evaluation of chromatographic versus electrophoretic behaviour of a series of therapeutical peptide hormones 985(2003)411

Predictive approaches to gradient retention based on analyte structural descriptors from calculation chemistry 987(2003)29

Classification and regression tree analysis for molecular descriptor selection and retention prediction in chromatographic quantitative structure–retention relationship studies 988(2003)261

Retention time locking

Multi-residue screening of pesticides in vegetables, fruits and baby food by stir bar sorptive extraction—thermal desorption—capillary gas chromatography—mass spectrometry (Review) 1000(2003)299

Retention time prediction

Mathematical correlations for predicting protein retention times in hydrophobic interaction chromatography 978(2002)71

High-speed peak matching algorithm for retention time alignment of gas chromatographic data for chemometric analysis 996(2003)141

Retention times

Contribution to the time balance in gas-liquid chromatography. New definition equations of the retention times and retention volumes 966(2002)145

Retention time reproducibility in comprehensive twodimensional gas chromatography using cryogenic modulation. An intralaboratory study 968(2002)161

Prediction of the plate height of capillary columns operated at any inlet pressure of the carrier gas by using few retention data measured under isobaric conditions 994(2003)103

Reproducible preparative liquid chromatography columns 992(2003)41

Retention values

Poly[1-(trimethylsilyl)-1-propine] as chromatographic adsorbent and prospects of its application in packed and capillary columns 960(2002)151

Retention volumes

Contribution to the time balance in gas-liquid chromatography. New definition equations of the retention times and retention volumes 966(2002)145

Determination of dependencies between the specific retention volumes and the parameters characterising adsorbent properties 969(2002)87

Reversed-flow gas chromatography

Physicochemical measurements by the reversed-flow version of inverse gas chromatography (Review) 969(2002)3

Heterogeneous catalysis on solids of gases diffusing through a liquid layer, studied by inverse gas chromatography 977(2002)107

Reviews

Modified aluminas as chromatographic supports for highperformance liquid chromatography (Review) 952(2002)1

Protein separation using membrane chromatography: opportunities and challenges (Review) 952(2002)13

Monolithic stationary phases for liquid chromatography and capillary electrochromatography (Review) 954(2002)5

Separation and detection of neuroactive steroids from biological matrices (Review) 955(2002)151

Recent developments in ion chromatography (Review) 956(2002)3

The membrane suppressor: a historical perspective (Review) 956(2002)43

Ultrasensitive chemiluminescence detection in capillary electrophoresis (Review) 959(2002)1

Monolithic silica columns for high-efficiency chromatographic separations (Review) 965(2002)35

Hypercross-linked polystyrene and its potentials for liquid chromatography: a mini-review (Review) 965(2002)65

Mechanistic molecular model of liquid–solid chromatography. Retention–eluent composition relationships (Review) 965(2002)109

Preparative liquid chromatography (Review) 965(2002)129

Perspectives on analyses of nucleic acid constituents: the basis of genomics 965(2002)163

Computerized design of separation strategies by reversed-phase liquid chromatography: development of DryLab software (Review) 965(2002)175

Review temperature selectivity in reversed-phase high performance liquid chromatography (Review) 965(2002)195

The measurement and meaning of void volumes in reversedphase liquid chromatography (Review) 965(2002)219

Column selectivity from the perspective of the solvation parameter model (Review) 965(2002)263

Practice and theory of enantioselective complexation gas chromatography (Review) 965(2002)315

Sweeping: concentration mechanism and applications to highsensitivity analysis in capillary electrophoresis (Review) 965(2002)357

Copolymer solutions as separation media for DNA capillary electrophoresis (Review) 966(2002)1

Analysis of the *Cinchona* alkaloids by high-performance liquid chromatography and other separation techniques (Review) 967(2002)1

Chemical analysis of *Ginkgo biloba* leaves and extracts (Review) 967(2002)21

Polyhydroxy alkaloids: chromatographic analysis (Review) 967(2002)57

Chromatography of the chromone and flavonoid alkaloids (Review) 967(2002)75

High-performance liquid chromatographic, capillary electrophoretic and capillary electrophoretic-electrospray ionisation mass spectrometric analysis of selected alkaloid groups (Review) 967(2002)85

Review of the analytical techniques for sesquiterpenes and sesquiterpene lactones (Review) 967(2002)115

Determination of valepotriates (Review) 967(2002)131

Chromatographic determination of plant saponins (Review) 967(2002)147

Chromatography and electrophoresis in separation and characterization of polysaccharides from lichens (Review) 967(2002)163

Recent advances in the application of mass spectrometry in food-related analysis (Review) 970(2002)3

Laser-based non-fluorescence detection techniques for liquid separation systems (Review) 971(2002)1

Gas chromatographic methods for oil analysis (Review) 972(2002)137

Elemental speciation by chromatographic separation with inductively coupled plasma mass spectrometry detection (Review) 974(2002)1

Recent advances in the mass spectrometric analysis related to endocrine disrupting compounds in aquatic environmental samples (Review) 974(2002)23

Liquid chromatographic-mass spectrometric methods for analyzing antibiotic and antibacterial agents in animal food products (Review) 974(2002)53

Current use of pressurised liquid extraction and subcritical water extraction in environmental analysis (Review) 975(2002)3

Extractions with superheated water (Review) 975(2002)31

Recent applications of sample preparation techniques in food analysis (Review) 975(2002)47

Sample handling strategies for the determination of biophenols in food and plants (Review) 975(2002)71

Retention characteristics and practical applications of carbon sorbents (Review) 975(2002)229

Capillary electrophoresis-inductively coupled plasma-mass spectrometry: an attractive complementary technique for elemental speciation analysis (Review) 975(2002)245

Sulfur and nitrogen chemiluminescence detection in gas chromatographic analysis (Review) 976(2002)3

Hyphenated techniques in anticancer drug monitoring. I. Capillary gas chromatography-mass spectrometry (Review) 976(2002)229

Hyphenated techniques in anticancer drug monitoring. II. Liquid chromatography—mass spectrometry and capillary electrophoresis—mass spectrometry (Review) 976(2002)239

Analysis of tropane and related alkaloids (Review) 978(2002)1

Influence of mobile phase acid-base equilibria on the chromatographic behaviour of protolytic compounds (Review) 982(2002)1

Analytical separation techniques for the determination of chemical warfare agents (Review) 982(2002)177

Separation methods in the chemistry of humic substances (Review) 983(2003)1

Changes in the basic experimental parameters of capillary gas chromatography in the 20th century (Review) 985(2003)3

Quantitation of amino acids and amines in the same matrix by high-performance liquid chromatography, either simultaneously or separately (Review) 987(2003)291

Current and prospective applications of metal ion-protein binding (Review) 988(2003)1

Separation of polar compounds using carbon columns (Review) 989(2003)183

Capillary zone electrophoresis of natural organic matter (Review) 998(2003)1

Solid-phase microextraction for herbicide determination in environmental samples (Review) 999(2003)103

Before the injection—modern methods of sample preparation for separation techniques (Review) 1000(2003)3

Immuno-based sample preparation for trace analysis (Review) 1000(2003)29

Miniaturized sample preparation combined with liquid phase separations (Review) 1000(2003)53

Comprehensive two-dimensional gas chromatography: a powerful and versatile analytical tool (Review) 1000(2003)69

Application of comprehensive two-dimensional gas chromatography to drugs analysis in doping control (Review) 1000(2003)109

Modern developments in gas chromatography-mass spectrometry-based environmental analysis (Review) 1000(2003)125

Practical approaches to fast gas chromatography-mass spectrometry (Review) 1000(2003)153

Matrix effects in (ultra)trace analysis of pesticide residues in food and biotic matrices (Review) 1000(2003)181

Fast gas chromatography and its use in trace analysis (Review) 1000(2003)199

Developments in the use of chromatographic techniques in marine laboratories for the determination of halogenated contaminants and polycyclic aromatic hydrocarbons (Review) 1000(2003)223

Derivatisation reactions in the chromatographic analysis of chemical warfare agents and their degradation products (Review) 1000(2003)253

State-of-the-art of gas chromatography-based methods for analysis of anthropogenic volatile organic compounds in estuarine waters, illustrated with the river Scheldt as an example (Review) 1000(2003)283

Hyphenation and hypernation. The practice and prospects of multiple hyphenation (Review) 1000(2003)325

On-line coupled liquid chromatography—gas chromatography (Review) 1000(2003)357

Measurement of endogenous estrogens: analytical challenges and recent advances (Review) 1000(2003)401

Progress in liquid chromatography-mass spectrometry instrumentation and its impact on high-throughput screening (Review) 1000(2003)413

Liquid chromatography with ultraviolet absorbance—mass spectrometric detection and with nuclear magnetic resonance spectrometry: a powerful combination for the on-line structural investigation of plant metabolites (Review) 1000(2003)437

Liquid chromatography-inductively coupled plasma mass spectrometry (Review) 1000(2003)457

Liquid chromatography-mass spectrometry and strategies for trace-level analysis of polar organic pollutants (Review) 1000(2003)477

Liquid chromatography—(tandem) mass spectrometry of selected emerging pollutants (steroid sex hormones, drugs and alkylphenolic surfactants) in the aquatic environment (Review) 1000(2003)503

The role of chromatography in the hunt for red tide toxins (Review) 1000(2003)527

Strategies for the liquid chromatographic-mass spectrometric analysis of non-polar compounds (Review) 1000(2003)549

Contributions of liquid chromatography-mass spectrometry to "highlights" of biomedical research (Review) 1000(2003)567

Recent liquid chromatographic-(tandem) mass spectrometric applications in proteomics (Review) 1000(2003)589

Analysis of food proteins and peptides by chromatography and mass spectrometry (Review) 1000(2003)609

Evaluation of methods for measuring amino acid hydrophobicities and interactions (Review) 1000(2003)637

Strategies for the determination of bioactive phenols in plants, fruit and vegetables (Review) 1000(2003)657

Evolution of ion-exchange: from Moses to the Manhattan Project to Modern Times (Review) 1000(2003)711

Developments in suppressor technology for inorganic ion analysis by ion chromatography using conductivity detection (Review) 1000(2003)725

High-temperature liquid chromatography (Review) 1000(2003)743

Determination of the interconversion energy barrier of enantiomers by separation methods (Review) 1000(2003)779

Silica gel-based monoliths prepared by the sol-gel method: Facts and figures (Review) 1000(2003)801

Hyphenation of capillary separations with nuclear magnetic resonance spectroscopy (Review) 1000(2003)819

Enantioselective ligand exchange in modern separation techniques (Review) 1000(2003)891

On-line preconcentration strategies for trace analysis of metabolites by capillary electrophoresis (Review) 1000(2003)917

(Micellar) electrokinetic chromatography: an interesting solution for the liquid phase separation dilemma (Review) 1000(2003)935

Thin-layer chromatography: challenges and opportunities (Review) 1000(2003)963

Progress in forced-flow planar chromatography (Review) 1000(2003)985

Rhazya stricta

High-performance liquid chromatographic, capillary electrophoretic and capillary electrophoretic-electrospray ionisation mass spectrometric analysis of selected alkaloid groups (Review) 967(2002)85

Rhodiola crenulata

Separation of salidroside from *Rhodiola crenulata* by highspeed counter-current chromatography 971(2002)237

Rice

Coupled liquid chromatography—gas chromatography for the rapid analysis of $\gamma\text{-}oryz$ anol in rice lipids 985(2003)403

Ring-opening metathesis polymerization

Separation of planar chiral ferrocene derivatives on β -cyclodextrin-based polymer supports prepared via ring-opening metathesis graft-polymerization 973(2002)115

$R_{\rm M}$ values

Lipophilicity of a series of 1,2-benzisothiazol-3(2H)-ones determined by reversed-phase thin-layer chromatography 952(2002)295

RNA-peptide interactions

Structural requirements for conserved Arg⁵² residue for interaction of the human immunodeficiency virus type 1 transactivation responsive element with trans-activator of transcription protein (49–57). Capillary electrophoresis mobility shift assay 968(2002)211

Robust imputation

How to estimate moments and quantiles of environmental data sets with non-detected observations? A case study on volatile organic compounds in marine water samples 975(2002)123

Robust testing

Advances in methodology for the validation of methods according to the International Organization for Standardization. Application to the determination of benzoic and sorbic acids in soft drinks by high-performance liquid chromatography 992(2003)11

Robustness

Gas chromatography for in situ analysis of a cometary nucleus. IV. Study of capillary column robustness for space application 982(2002)303

Rosemary

Capillary electrophoretic separation of phenolic diterpenes from rosemary 953(2002)251

Rosmarinus officinalis

Quantitative determination of phenolic diterpenes in rosemary extracts. Aspects of accurate quantification 995(2003)119

Rubbers

Optimization of parameters for the supercritical fluid extraction in the determination of N-nitrosamines in rubbers 963(2002)419

Rubia tinctorum

Analysis of anthraquinones in *Rubia tinctorum* L. by liquid chromatography coupled with diode-array UV and mass spectrometric detection 978(2002)119

Rutheopsis herbanica

Analysis by gas chromatography-mass spectrometry of the essential oils from the aerial parts of *Rutheopsis herbanica* (Bolle) Hans. & Kunk., gathered in Fuerteventura (Canary Islands) 984(2003)159



Saccharomyces cerevisiae

Improved performance of gravitational field-flow fractionation for screening wine-making yeast varieties 966(2002)135

Hydrophobic interaction ligand selection and scale-up of an expanded bed separation of an intracellular enzyme from Saccharomyces cerevisiae 968(2002)121

Saccharum officinarum

Applications of ion chromatography in cane sugar research and process problems 956(2002)187

Safety concerns

Safety concerns in ultrahigh pressure capillary liquid chromatography using air-driven pumps 991(2003)189

Salt effects

Salt effects on the interaction of an amphiphilic model molecule with immobilized phosphatidylcholine monolayers 977(2002)185

Modeling of adsorption in hydrophobic interaction chromatography systems using a preferential interaction quadratic isotherm 989(2003)47

Modeling of the salt effects on hydrophobic adsorption equilibrium of protein 992(2003)29

Salt gradient

Effect of salt gradients on the separation of dilute mixtures of proteins by ion-exchange in simulated moving beds 952(2002)85

Sample handling

see also Clean-up methods, Extraction methods, Preconcentration, Sample preparation, Sample stacking, Sweeping and Special Issue Index

Improving separation efficiency of capillary zone electrophoresis of tryptophan and phenylalanine with the transient moving chemical reaction boundary method 952(2002)39

Determination of trace level bromate and perchlorate in drinking water by ion chromatography with an evaporative preconcentration technique 956(2002)85

Minimization of water vapor interference in the analysis of nonmethane volatile organic compounds by solid adsorbent sampling 958(2002)219

Sample handling strategies for the determination of biophenols in food and plants (Review) 975(2002)71

Sub-second thermal desorption of a micro-sorbent trap for the analysis of ambient volatile organic compounds 976(2002)39

Determination of tocopherols, tocopherolquinones and tocopherolhydroquinones by gas chromatography—mass spectrometry and preseparation with lipophilic gel chromatography 976(2002)215

Sample pre-concentration by isotachophoresis in microfluidic devices 979(2002)69

On-line sample preconcentration in micellar electrokinetic chromatography using ion-pair reagents 979(2002)131

Needle-type concentrator and its application to the determination of pollutants 985(2003)63

Relaxed eddy accumulation, a new technique for measuring emission and deposition fluxes of volatile organic compounds by capillary gas chromatography and mass spectrometry 985(2003)283

On-line sample preconcentration in micellar electrokinetic chromatography by sweeping with anionic-zwitterionic mixed micelles 985(2003)435

Process monitoring of anaerobic azo dye degradation by highperformance liquid chromatography—diode array detection continuously coupled to membrane filtration sampling modules 987(2003)395

A microfabricated microconcentrator for sensors and gas chromatography 996(2003)1

Sample preparation

see also Clean-up methods, Extraction methods, Preconcentration, Sample handling and Special Issue Index

Initial study of using a laminar fluid diffusion interface for sample preparation in high-performance liquid chromatography 954(2002)33

New sample preparation technique for the determination of avoparcin in pressurized hot water extracts from kidney samples 954(2002)41

Determination of sulfonylurea herbicides by continuous-flow liquid membrane extraction on-line coupled with high-performance liquid chromatography 955(2002)183

Extractions with superheated water (Review) 975(2002)31

Recent applications of sample preparation techniques in food analysis (Review) 975(2002)47

Use of a novel cation-exchange restricted-access material for automated sample clean-up prior to the determination of basic drugs in plasma by liquid chromatography 975(2002)145

On-line automated sample preparation for liquid chromatography using parallel supported liquid membrane extraction and microporous membrane liquid–liquid extraction 975(2002)211

Preconcentration and dansylation of aliphatic amines using C_{18} solid-phase packings. Application to the screening analysis in environmental water samples 978(2002)59

Capillary extractors for "negligible depletion" sampling of benzene, toluene, ethylbenzene and xylenes by in-tube solid-phase microextraction 985(2003)85

Solid-phase microextraction from small volumes of sample in a glass capillary 988(2003)25

Determination of T-2 toxin in cereal grains by liquid chromatography with fluorescence detection after immunoaffinity column clean-up and derivatization with 1-anthroylnitrile 989(2003)257

Efficiency and characteristics of solid-phase (ion-exchange) extraction for removal of Cl⁻ matrix 991(2003)23

Characterisation of legumes by enzymatic hydrolysis, microdialysis sampling, and micro-high-performance anion-exchange chromatography with electrospray ionisation mass spectrometry 992(2003)67

Closed-loop stripping analysis of synthetic musk compounds from fish tissues with measurement by gas chromatography—mass spectrometry with selected-ion monitoring 993(2003)1

Headspace solid-phase microextraction in combination with gas chromatography-mass spectrometry for the rapid screening of organophosphorus insecticide residues in strawberries and cherries 993(2003)197

Determination of endocrine-disrupting compounds in water samples by on-line solid-phase extraction-programmed-temperature vaporisation-gas chromatography-mass spectrometry 998(2003)41

Before the injection—modern methods of sample preparation for separation techniques (Review) 1000(2003)3

Immuno-based sample preparation for trace analysis (Review) 1000(2003)29

Miniaturized sample preparation combined with liquid phase separations (Review) 1000(2003)53

State-of-the-art of gas chromatography-based methods for analysis of anthropogenic volatile organic compounds in estuarine waters, illustrated with the river Scheldt as an example (Review) 1000(2003)283

On-line preconcentration strategies for trace analysis of metabolites by capillary electrophoresis (Review) 1000(2003)917

Sample stacking

see also Field-enhanced sample stacking and Injection methods

Determination of sildenafil citrate and its main metabolite by sample stacking with polarity switching using micellar electrokinetic chromatography 953(2002)279

Analysis of the herbicides paraquat, diquat and difenzoquat in drinking water by micellar electrokinetic chromatography using sweeping and cation selective exhaustive injection 961(2002)65

Determination of nitrate in seawater by capillary zone electrophoresis with chloride-induced sample self-stacking 966(2002)205

Determination of alkylphosphonic acids using micellar electrokinetic chromatography with laser-induced fluorescence detection and high-salt stacking 966(2002)239

On-line concentration of trace proteins by pH junctions in capillary electrophoresis with UV absorption detection 979(2002)261

Solid-phase extraction and sample stacking-micellar electrokinetic capillary chromatography for the determination of multiresidues of herbicides and metabolites 990(2003)291

Analysis of food colorants by capillary electrophoresis with large-volume sample stacking 995(2003)29

Analysis of naphthalenesulfonate compounds by cyclodextrinmediated capillary electrophoresis with sample stacking 996(2003)205

Sampling theory

Theoretical study of incomplete sampling of the first dimension in comprehensive two-dimensional chromatography 962(2002)21

Saturation

Comprehensive two-dimensional gas chromatography: metrics, potentials, limits 985(2003)29

Savory

Thermodynamic and kinetic models for the extraction of essential oil from savory and polycyclic aromatic hydrocarbons from soil with hot (subcritical) water and supercritical ${\rm CO_2}$ 975(2002)175

Scheldt estuary

State-of-the-art of gas chromatography-based methods for analysis of anthropogenic volatile organic compounds in estuarine waters, illustrated with the river Scheldt as an example (Review) 1000(2003)283

Schisandra chinensis

Use of synthetic adsorbents in preparative normal-phase liquid chromatography 989(2003)19

Scientometrics

Changes in the basic experimental parameters of capillary gas chromatography in the 20th century (Review) 985(2003)3

Screening

Screening approach for chiral separation of pharmaceuticals. Part II. Reversed-phase liquid chromatography 966(2002)119

Impact of normal-phase gradient elution in chiral chromatography: a novel, robust, efficient and rapid chiral screening procedure 983(2003)101

Progress in liquid chromatography—mass spectrometry instrumentation and its impact on high-throughput screening (Review) 1000(2003)413

Secondary metabolites

Chemical analysis of *Ginkgo biloba* leaves and extracts (Review) 967(2002)21

Second-order calibration

Using second-order calibration to identify and quantify aromatic sulfonates in water by high-performance liquid chromatography in the presence of coeluting interferences 988(2003)277

Second-order data

Peak deconvolution in one-dimensional chromatography using a two-way data approach 958(2002)35

Second virial coefficients

Study on the concentration effects in size exclusion chromatography. VII. A quantitative verification for the model theory of concentration and molecular mass dependences of hydrodynamic volumes for polydisperse polymers 961(2002)155

Sedimentation equilibrium

Determining the molar mass of a plasma substitute succinylated gelatin by size exclusion chromatography—multi-angle laser light scattering, sedimentation equilibrium and conventional size exclusion chromatography 957(2002)139

Sediments

see also Marine sediments

Some aspects of the analysis of environmental pollutants in sediments using pressurized liquid extraction and gas chromatography-mass spectrometry 957(2002)59

Determination of polycyclic aromatic hydrocarbons and polycylic aromatic sulfur heterocycles by high-performance liquid chromatography with fluorescence and atmospheric pressure chemical ionization mass spectrometry detection in seawater and sediment samples 958(2002)141

Acid-induced cloud point extraction and preconcentration of polycyclic aromatic hydrocarbons from environmental solid samples 962(2002)1

Rapid isolation of biomarkers for compound specific radiocarbon dating using high-performance liquid chromatography and flow injection analysis—atmospheric pressure chemical ionisation mass spectrometry 978(2002)129

Separation and identification of aromatic acids in soil and the Everglades sediment samples using solid-phase microextraction followed by capillary zone electrophoresis 979(2002)417

Methods for selective determination of persistent organochlorine pesticide residues in water and sediments by capillary gas chromatography and electron-capture detection 983(2003)225

Pressurized liquid extraction of selected molecular biomarkers in deep sea sediments used as proxies in paleoceanography 989(2003)197

Selanstrum chaetoceras

At-line gas chromatographic-mass spectrometric analysis of fatty acid profiles of green microalgae using a direct thermal desorption interface 959(2002)191

Selectivity

Prediction of internal standards in reversed-phase liquid chromatography. II. Selectivity optimization and internal standard prediction for the quantitation of estradiol and levonorgestrel in a transdermal drug delivery formulation based on the linear solvation energy relationships 954(2002)159

Simultaneous determination of ketoconazole and formaldehyde in a shampoo: liquid chromatography method developmentand validation 958(2002)191

Variability of column selectivity for reversed-phase highperformance liquid chromatography. Compensation by adjustment of separation conditions 960(2002)51

Effect of molecular interactions on retention and selectivity in reversed-phase liquid chromatography 960(2002)69

Column selectivity in reversed-phase liquid chromatography. I. A general quantitative relationship 961(2002)171

Column selectivity in reversed-phase liquid chromatography. II. Effect of a change in conditions 961(2002)195

Column selectivity in reversed-phase liquid chromatography. III. The physico-chemical basis of selectivity 961(2002)217

Recovery, enrichment and selectivity in liquid-phase microextraction. Comparison with conventional liquid-liquid extraction 963(2002)3

Retention of alkali, alkaline earth and transition metals on an itaconic acid cation-exchange column. Eluent pH, ionic strength and temperature effects upon selectivity 964(2002)113

Column selectivity from the perspective of the solvation parameter model (Review) 965(2002)263

Comparison of methods for characterization of reversed-phase liquid chromatographic selectivity 965(2002)301

Chromatographic shape selectivity with carbon dioxide—acetonitrile mobile phases. Effect of mobile phase composition and density 971(2002)61

Hydrophobic interaction chromatography of proteins. I. Comparison of selectivity 972(2002)3

Novel surface modification of polymer-based separation media controlling separation selectivity, retentivity and generation of electroosmotic flow 979(2002)3

Carrier gas as a new factor influencing the selectivity of the gas-stationary liquid phase chromatographic system 985(2003)57

Influencing electroosmotic flow and selectivity in open tubular electrochromatography by tetrakis(pentafluorophenyl)porphyrin as capillary wall modifier 990(2003)111

Selectivity behaviour of a bonded phosphonate-carboxylate polymeric ion exchanger for metal cations with varying eluent compositions 997(2003)3

Column selectivity in reversed-phase liquid chromatography. IV. Type-B alkyl-silica columns (Review) 1000(2003)757

Self-assembled particles

Microcolumns with self-assembled particle frits for proteomics 979(2002)233

Self-heating

Packing structure and self-heating in capillary electrochromatography 986(2003)297

Semiconductors

Automated trace anion determinations in concentrated electronic grade phosphoric acid by ion chromatography 956(2002)121

Sensitivity

Increase of sample load without peak deterioration by careful selection of electrolyte in capillary zone electrophoresis 953(2002)227

Quantification of the sensitivity increase of a micro-highperformance liquid chromatography-electrospray ionization mass spectrometry system with decreasing column diameter 976(2002)11

Separation capacity

Comprehensive two-dimensional gas chromatography: metrics, potentials, limits 985(2003)29

Separation coefficient

Relations between the separation coefficient, longitudinal displacement and peak broadening in size exclusion chromatography of macromolecules 978(2002)109

Separation factor

Comparison of monomeric and polymeric chiral stationary phases 987(2003)111

Sephadex G-15 column

Potassium and sodium chloride ion pairs are presumed to constitute a complex during elution from a Sephadex G-15 column with sodium phosphate buffer 987(2003)49

Septum-closed vials

Optimisation of solid-phase microextraction of volatiles 960(2002)159

Sewage sludge

Optimization, validation and comparison of various extraction techniques for the trace determination of polycyclic aromatic hydrocarbons in sewage sludges by liquid chromatography coupled to diode-array and fluorescence detection 995(2003)87

Determination of musk compounds in sewage treatment plant sludge samples by solid-phase microextraction 999(2003)185

Shape selectivity

Column selectivity in reversed-phase liquid chromatography. III. The physico-chemical basis of selectivity 961(2002)217

Chromatographic shape selectivity with carbon dioxide—acetonitrile mobile phases. Effect of mobile phase composition and density 971(2002)61

Shear-driven chromatography

Sub-second liquid chromatographic separations by means of shear-driven chromatography 979(2002)33

Experimental Van Deemter plots of shear-driven liquid chromatographic separations in disposable microchannels 987(2003)39

Sheath liquid effects

Performance of capillary gel electrophoretic analysis of oligonucleotides coupled on-line with electrospray mass spectrometry 991(2003)129

Shellfish poisoning

Comparison of solid-phase extraction methods for the determination of azaspiracids in shellfish by liquid chromatography-electrospray mass spectrometry 963(2002)353

Direct detection of yessotoxin and its analogues by liquid chromatography coupled with electrospray ion trap mass spectrometry 968(2002)61

Liquid chromatography with electrospray ion-trap mass spectrometry for the determination of yessotoxins in shellfish 976(2002)329

Liquid chromatography-mass spectrometry of spiroketal stereoisomers of pectenotoxins and the analysis of novel pectenotoxin isomers in the toxic dinoflagellate *Dinophysis acuta* from New Zealand 992(2003)141

Further improvements in the application of high-performance liquid chromatography, capillary electrophoresis and capillary electrochromatography to the analysis of algal toxins in the aquatic environment 992(2003)159

Short-end injection

Chiral separation of amines with *N*-benzoxycarbonylglycyl-*L*-proline as selector in non-aqueous capillary electrophoresis using methanol and 1,2-dichloroethane in the background electrolyte 984(2003)261

Signal processing

Analysis of peak asymmetry in chromatography 953(2002)31

Silanols

Comparison of the acidity of residual silanol groups in several liquid chromatography columns 986(2003)33

Evaluation of the applicability and the stability of a C_{18} stationary phase containing embedded urea groups 987(2003)139

Silanophilic interactions

Mixed-mode reversed-phase and ion-exchange separations of cationic analytes on polybutadiene-coated zirconia 968(2002)17

Silica

New approach to characterise physicochemical properties of solid substrates by inverse gas chromatography at infinite dilution. II. Study of the transition temperatures of poly(methyl methacrylate) at various tacticities and of poly(methyl methacrylate) adsorbed on alumina and silica 969(2002)27

New approach to characterise physicochemical properties of solid substrates by inverse gas chromatography at infinite dilution. III. Determination of the acid-base properties of some solid substrates (polymers, oxides and carbon fibres): a new model 969(2002)37

Influence of poly(methyl methacrylate) impregnation ratio on the surface properties of fumed silica and on the glassy temperature of poly(methyl methacrylate) using inverse gas chromatographic analysis 969(2002)143

Size-exclusion chromatography of low-molecular-mass polymers using mesoporous silica 973(2002)97

Silica, C₁₈

Determination of the porosities of monolithic columns by inverse size-exclusion chromatography 975(2002)275

Silica, diol-

Cyanogen bromide activation and coupling of ligands to diolcontaining silica for high-performance affinity chromatography. Optimization of conditions 971(2002)95

Comparison of the acidity of residual silanol groups in several liquid chromatography columns 986 (2003) 33

Silica, octadecylsilyl-bonded

Two dimensional reversed-phase–reversed-phase separations. Isomeric separations incorporating C_{18} and carbon clad zirconia stationary phases 975(2002)285

Comparison of the acidity of residual silanol groups in several liquid chromatography columns 986(2003)33

Monolithic octadecylsilyl-silica gel column for the high-speed ion chromatographic determination of acidity 997(2003)183

Silica-based column packings

Atypical silica-based column packings for high-performance liquid chromatography 965(2002)25

Silica dissolution

Explanation for the enhanced dissolution of silica column packing in high pH phosphate and carbonate buffers 988(2003)309

Silica-polypyrrole stationary phase

Characterisation of the chromatographic properties of a silica–polypyrrole composite stationary phase by inverse liquid chromatography 969(2002)167

Siloxane-water partition coefficients

Determination of siloxane—water partition coefficients by capillary extraction—high-resolution gas chromatography. Study of aromatic solvents 985(2003)39

Silver-ion chromatography

Utilisation of reversed-phase high-performance liquid chromatography as an alternative to silver-ion chromatographyfor the separation of *cis*- and *trans*-C18:1 fatty acid isomers 954(2002)285

Silver-ion packed-column supercritical fluid chromatography

Characterization of triglycerides in vegetable oils by silver-ion packed-column supercritical fluid chromatography coupled to mass spectroscopy with atmospheric pressure chemical ionization and coordination ion spray 974(2002)231

Silymarin

Analysis of the active components of silymarin 990(2003)239

Simmondsia chinensis

Simultaneous determination of carbohydrates and simmondsins in jojoba seed meal (*Simmondsia chinensis*) by gas chromatography 977(2002)257

Simulated moving bed chromatography

Effect of salt gradients on the separation of dilute mixtures of proteins by ion-exchange in simulated moving beds 952(2002)85

Continuous fractionation of enantiomer pairs in free solution using an electrophoretic analog of simulated moving bed chromatography 953(2002)263

Experimental investigation of the behavior of gas phase simulated moving beds 957(2002)211

Multiobjective optimization of simulated moving bed and Varicol processes using a genetic algorithm 989(2003)95

Simultaneous steam distillation-solvent extraction

Comparison of different extraction methods for the analysis of fragrances from Lavandula species by gas chromatography-mass spectrometry 982(2002)31

Single-drop microextraction

Application of single-drop microextraction and comparison with solid-phase microextraction and solid-phase extraction for the determination of $\alpha\text{-}$ and $\beta\text{-}$ endosulfan in water samples by gas chromatography-electron-capture detection 984(2003)245

Size distribution

Improved performance of gravitational field-flow fractionation for screening wine-making yeast varieties 966(2002)135

Particle size and density distributions of two dense matrices in an expanded bed system 977(2002)173

Size-exclusion chromatography

Evaluation of size-exclusion chromatography and size-exclusion electrochromatography calibration curves 957(2002)127

Size-exclusion chromatography in 1,1,1,3,3,3-hexafluoro-2-propanol 964(2002)169

Contribution of the polymer standards' polydispersity to the observed band broadening in size-exclusion chromatography 986(2003)1

Size-exclusion electrochromatography

Evaluation of size-exclusion chromatography and size-exclusion electrochromatography calibration curves 957(2002)127

Skewed peaks

Parabolic-Lorentzian modified Gaussian model for describing and deconvolving chromatographic peaks 954(2002)59

Smokeless powders

Gradient reversed-phase liquid chromatographic-electrospray ionization mass spectrometric method for the comparison of smokeless powders 988(2003)107

Snow

Development of capillary electrophoresis for the determination of metal ions using mixed partial and complete complexation techniques 977(2002)135

Snyder-Soczewinski model

Mechanistic molecular model of liquid–solid chromatography. Retention–eluent composition relationships (Review) 965(2002)109

Soft drinks

Advances in methodology for the validation of methods according to the International Organization for Standardization. Application to the determination of benzoic and sorbic acids in soft drinks by high-performance liquid chromatography 992(2003)11

Soft independent modeling of class analogy

Chemometric detection of thermally degraded samples in the analysis of drugs of abuse with gas chromatography–Fourier-transform infrared spectroscopy 962(2002)161

Soil

Study of the feasibility of focused microwave-assisted Soxhlet extraction of *N*-methylcarbamates from soil 953(2002)133

Determination of inorganic cations and ammonium in environmental waters by ion chromatography with a high-capacity cation-exchange column 956(2002)181

Determination of oxanilic and sulfonic acid metabolites of acetochlor in soils by liquid chromatography-electrospray ionisation mass spectrometry 957(2002)69

Analysis of Metribuzin and transformation products in soil by pressurized liquid extraction and liquid chromatographic-tandem mass spectrometry 957(2002)79

Coupling continuous subcritical water extraction, filtration, preconcentration, chromatographic separation and UV detection for the determination of chlorophenoxy acid herbicides in soils 959(2002)25

Liquid chromatographic method development for determination of fungicide epoxiconazole enantiomers by achiral and chiral column switching technique in water and soil 959(2002)143

Analysis of phenoxyalkanoic acid herbicides and their phenolic conversion products in soil by microwave assisted solvent extraction and subsequent analysis of extracts by on-line solid-phase extraction—liquid chromatography 959(2002)153

Acid-induced cloud point extraction and preconcentration of polycyclic aromatic hydrocarbons from environmental solid samples 962(2002)1

Determination of metribuzin and major conversion products in soils by microwave-assisted water extraction followed by liquid chromatographic analysis of extracts 962(2002)9

Development of an analytical methodology for sarin (GB) and soman (GD) in various military-related wastes 962(2002)183

Detection of explosives and their degradation products in soil environments 963(2002)411

Application of headspace solid-phase microextraction and gas chromatography-mass spectrometry for detection of the chemical warfare agent bis(2-chloroethyl) sulfide in soil 971(2002)185

Development of supercritical fluid extraction with a solid-phase trapping for fast estimation of toxic load of polychlorinated dibenzo-p-dioxins-dibenzofurans in sawmill soil 975(2002)189

Multiresidue analysis of fungicides in soil by sonication-assisted extraction in small columns and gas chromatography 976(2002)319

Separation and identification of aromatic acids in soil and the Everglades sediment samples using solid-phase microextraction followed by capillary zone electrophoresis 979(2002)417

Screening method for polycyclic aromatic hydrocarbons in soil using hollow fiber membrane solvent microextraction 982(2002)201

Capillary zone electrophoresis of soil humic acid fractions obtained by coupling size-exclusion chromatography and polyacrylamide gel electrophoresis 983(2003)263

Determination of triazines in soil by microwave-assisted extraction followed by solid-phase microextraction and gas chromatography-mass spectrometry 985(2003)167

Determination of total petroleum hydrocarbons in soil by dynamic on-line supercritical fluid extraction with infrared photometric detection 986(2003)319

Determination of 3-nitrobenzanthrone in surface soil by normalphase high-performance liquid chromatography with fluorescence detection 992(2003)101

Automated fast extraction of nitrated polycyclic aromatic hydrocarbons from soil by focused microwave-assisted Soxhlet extraction prior to gas chromatography–electron-capture detection 994(2003)159

Screening and determination of pesticides in soil using continuous subcritical water extraction and gas chromatography—mass spectrometry 994(2003)169

Extraction of polychlorinated biphenyls from soils by automated focused microwave-assisted Soxhlet extraction 998(2003)21

Continuous ultrasound-assisted extraction coupled to on line filtration—solid-phase extraction—column liquid chromatography—post column derivatisation—fluorescence detection for the determination of *N*-methylcarbamates in soil and food 998(2003)51

Solid-phase microextraction for herbicide determination in environmental samples (Review) 999(2003)103

Solvent extraction of organic molecules of exobiological interest for in situ analysis of the Martian soil 999(2003)165

Soil column chromatography

Estimation of soil organic partition coefficients: from retention factors measured by soil column chromatography with water as eluent 968(2002)7

Solanaceae spp.

Intercalibration of chromatographic methods for auxino phytodrugs in *Solanaceae* 993(2003)111

Sol-gel

see also Monolithic columns

Electroosmotic flow controllable coating on a capillary surface by a sol-gel process for capillary electrophoresis 952(2002)255

Solid-liquid extraction

Rotation planar extraction and rotation planar chromatography of oak (*Quercus robur* L.) bark 991(2003)267

Solvent extraction of organic molecules of exobiological interest for in situ analysis of the Martian soil 999(2003)165

Solid-phase analytical derivatization

Determination of primary aromatic amines in water food simulant using solid-phase analytical derivatization followed by gas chromatography coupled with mass spectrometry 983(2003)35

Solid-phase dynamic extraction

Automated headspace solid-phase dynamic extraction for the determination of amphetamines and synthetic designer drugs in hair samples 958(2002)231

Solid-phase extraction

see also Extraction methods

Determination of benzylsuccinic acid in gasoline-contaminated groundwater by solid-phase extraction coupled with gas chromatography-mass spectrometry 953(2002)215

New procedure for selective extraction of polycyclic aromatic hydrocarbons in plants for gas chromatographic–mass spectrometric analysis 958(2002)1

Online coupling of pressurized liquid extraction, solid-phase extraction and high-performance liquid chromatography for automated analysis of proanthocyanidins in malt 958(2002)9

Liquid chromatography-electrospray ionization isotope dilution mass spectrometry analysis of paraquat and diquat using conventional and multilayer solid-phase extraction cartridges 958(2002)25

Dynamic versus static sampling for the quantitative analysis of volatile organic compounds in air with polydimethylsiloxane—Carboxen solid-phase microextraction fibers 963(2002)49

Non-covalent and semi-covalent molecularly imprinted polymers for selective on-line solid-phase extraction of 4-nitrophenol from water samples 963(2002)169

Solid-phase extraction for the simultaneous preconcentration of organic (selenocystine) and inorganic [Se(IV), Se(VI)] selenium in natural waters 963(2002)185

Comparison of solid-phase extraction methods for the determination of azaspiracids in shellfish by liquid chromatography-electrospray mass spectrometry 963(2002)353

Dynamic microwave-assisted extraction coupled on-line with solid-phase extraction: determination of polycyclic aromatic hydrocarbons in sediment and soil 964(2002)11

Hypercross-linked polystyrene and its potentials for liquid chromatography: a mini-review (Review) 965(2002)65

Determination of chlormequat and mepiquat in pear, tomato, and wheat flour using on-line solid-phase extraction (Prospekt) coupled with liquid chromatography-electrospray ionization tandem mass spectrometry 966(2002)15

In-line pressurized-fluid extraction—solid-phase extraction for determining phenolic compounds in grapes 968(2002)1

Determination of phenols in landfill leachate-contaminated groundwaters by solid-phase extraction 972(2002)175

Effect of solvents on the selectivity of terbutylazine imprinted polymer sorbents used in solid-phase extraction 973(2002)1

Solid phase extraction sorbent consisting of alkyltrimethylammonium surfactants immobilized onto strong cation-exchange polystyrene resin 975(2002)135

Extraction of clenbuterol from calf urine using a molecularly imprinted polymer followed by quantitation by high-performance liquid chromatography with UV detection 975(2002)157

Combination of supported liquid membrane and solid-phase extraction for sample pretreatment of triazine herbicides in juice prior to capillary electrophoresis determination 975(2002)219

On-line solid-phase extraction of ceramides from yeast with ceramide III imprinted monolith 984(2003)173

Conductive polymers as new media for solid-phase extraction: Isolation of chlorophenols from water sample 986(2003)111

Preparation of a molecularly imprinted polymer for the solidphase extraction of scopolamine with hyoscyamine as a dummy template molecule 987(2003)103

Selective extraction of salbutamol from human plasma with the use of phenylboronic acid 987(2003)257

Solid-phase clean-up in the liquid chromatographic determination of polycyclic aromatic hydrocarbons in edible oils 988(2003)33

Efficiency and characteristics of solid-phase (ion-exchange) extraction for removal of Cl^- matrix 991(2003)23

Selective separation of active inhibitors of epidermal growth factor receptor from Caragana Jubata by molecularly imprinted solid-phase extraction 991(2003)151

Microscale solid-phase extraction system for explosives 991(2003)159

On-line solid-phase extraction with molecularly imprinted polymers to selectively extract substituted 4-chlorophenols and 4-nitrophenol from water 995(2003)233

Determination of aromatic amine mutagens, PBTA-1 and PBTA-2, in river water by solid-phase extraction followed by liquid chromatography-tandem mass spectrometry 995(2003)239

Considerations on ultra trace analysis of carbamates in water samples 996(2003)133

Experimental comparison of three monoclonal antibodies for the class-selective immunoextraction of triazines. Correlation with molecular modeling and principal component analysis studies 999(2003)3

Optimization of the class-selective extraction of triazines from aqueous samples using a molecularly imprinted polymer by a comprehensive approach of the retention mechanism 999(2003)23

Before the injection—modern methods of sample preparation for separation techniques (Review) 1000(2003)3

Immuno-based sample preparation for trace analysis (Review) 1000(2003)29

Analytical method for the determination of the aminoglycoside gentamicin in hospital wastewater via LC-electrospray-tandem MS (Review) 1000(2003)583

Solid-phase microextraction

see also Extraction methods

Analysis of antifouling biocides Irgarol 1051 and Sea Nine 211 in environmental water samples using solid-phase microextraction and gas chromatography 952(2002)215

Headspace solid-phase microextraction analysis of 3-alkyl-2-methoxypyrazines in wines 953(2002)1

Optimisation of headspace solid-phase microextraction for analysis of aromatic compounds in vinegar 953(2002)7

Solid-phase microextraction coupled to high-performance liquid chromatography to determine phenolic compounds in water samples 953(2002)79

Headspace solid-phase microextraction of higher fatty acid ethyl esters in white rum aroma 954(2002)51

Time-weighted average sampling of airborne *n*-valeraldehyde by a solid-phase microextration device 954(2002)191

Selective stationary phase for solid-phase microextraction analysis of sarin (GB) 954(2002)217

Gas chromatographic determination of glutaraldehyde in the workplace atmosphere after derivatization with *O*-(2,3,4,5,6-pentafluorobenzyl)hydroxylamine on a solid-phase microextraction fibre 955(2002)117

Optimisation of solid-phase microextraction of volatiles 960(2002)159

Comparison of three different poly(dimethylsiloxane) divinylbenzene fibres for the analysis of pesticide multiresidues in water samples: structure and efficiency 963(2002)19

Photolysis of polychlorinated biphenyls by solid-phase microextraction. "On-fibre" versus aqueous photodegradation 963(2002)37

Monitoring volatile compounds during dry-cured ham ripening by solid-phase microextraction coupled to a new direct-extraction device 963(2002)83

Comparison of different coatings in solid-phase microextraction for the determination of organochlorine pesticides in ground water 963(2002)95

Optimization of a derivatization-solid-phase microextraction method for the analysis of thirty phenolic pollutants in water samples 963(2002)137

Development of a solid-phase microextraction method for the determination of short-ethoxy-chain nonylphenols and their brominated analogs in raw and treated water 963(2002)159

Determination of esters in dry and sweet white wines by headspace solid-phase microextraction and gas chromatography 963(2002)213

Optimization of headspace solid-phase microextraction by means of an experimental design for the determination of methyl *tert.*-butyl ether in water by gas chromatography–flame ionization detection 963(2002)259

Optimisation of a solid-phase microextraction method for synthetic musk compounds in water 963(2002)277

Analysis of anatoxin-a in aqueous samples by solid-phase microextraction coupled to high-performance liquid chromatography with fluorescence detection and on-fiber derivatization 963(2002)295

Methylmercury determination in biological samples by derivatization, solid-phase microextraction and gas chromatography with microwave-induced plasma atomic emission spectrometry 963(2002)313

Bio-compatible in-tube solid-phase microextraction capillary for the direct extraction and high-performance liquid chromatographic determination of drugs in human serum 963(2002)325

Development of a headspace solid-phase microextraction—gas chromatography—mass spectrometry method for the identification of odour-causing volatile compounds in packaging materials 963(2002)381

Determination of organochlorine pesticides in ground water using solid-phase microextraction followed by dual-column gas chromatography with electron-capture detection 964(2002)21

Gas chromatographic determination of 2-hydroxy-4-methoxybenzophenone and octyldimethyl-*p*-aminobenzoic acid sunscreen agents in swimming pool and bathing waters by solid-phase microextraction 967(2002)243

Headspace solid-phase microextraction analysis of aroma compounds in vinegar. Validation study 967(2002)261

Multiresidue method for the simultaneous determination of four groups of pesticides in ground and drinking waters, using solid-phase microextraction—gas chromatography with electron-capture and thermionic specific detection 968(2002)177

Application of headspace solid-phase microextraction and gas chromatography-mass spectrometry for detection of the chemical warfare agent bis(2-chloroethyl) sulfide in soil 971(2002)185

Determination of atrazine and four organophosphorus pesticides in ground water using solid phase microextraction (SPME) followed by gas chromatography with selected-ion monitoring 972(2002)183

Direct determination of chlorophenols in landfill leachates by solid-phase micro-extraction—gas chromatography—mass spectrometry 975(2002)267

Determination of 4-ethylguaiacol and 4-ethylphenol in red wines using headspace-solid-phase microextraction-gas chromatography 975(2002)349

Determination of pyrimethanil and kresoxim-methyl in green groceries by headspace solid-phase microextraction and gas chromatography-mass spectrometry 975(2002)355

Determination of 2,4,6-trichloroanisole in wines by headspace solid-phase microextraction and gas chromatography-electron-capture detection 977(2002)1

Optimization of the headspace solid-phase microextraction for determination of glycol ethers by orthogonal array designs 977(2002)9

Hydroxyfullerene as a novel coating for solid-phase microextraction fiber with sol-gel technology 978(2002)37

Separation and identification of aromatic acids in soil and the Everglades sediment samples using solid-phase microextraction followed by capillary zone electrophoresis 979(2002)417

Comparison of different extraction methods for the analysis of fragrances from Lavandula species by gas chromatography-mass spectrometry 982(2002)31

Analysis of virgin olive oil volatile compounds by headspace solid-phase microextraction coupled to gas chromatography with mass spectrometric and flame ionization detection 983(2003)19

Solid-phase microextraction for the analysis of short-chain chlorinated paraffins in water samples 984(2003)1

Determination of siloxane—water partition coefficients by capillary extraction—high-resolution gas chromatography. Study of aromatic solvents 985(2003)39

Comparison of solid-phase microextraction and purge-and-trap methods for the analysis of the volatile fraction of butter 985(2003)117

Monitoring and fast detection of mycotoxin-producing fungi based on headspace solid-phase microextraction and headspace sorptive extraction of the volatile metabolites 985(2003)127

On-fiber photodegradation after solid-phase microextraction of p, p'-DDT and two of its major photoproducts, p, p'-DDE and p, p'-DDD 985(2003)175

Analysis of volatiles of malt whisky by solid-phase microextraction and stir bar sorptive extraction 985(2003)221

Monolithic silica column for in-tube solid-phase microextraction coupled to high-performance liquid chromatography 985(2003)351

Determination of daidzein and genistein in soybean foods by automated on-line in-tube solid-phase microextraction coupled to high-performance liquid chromatography 986(2003)169

Solid-phase microextraction from small volumes of sample in a glass capillary 988(2003)25

Trace analysis of technical nonylphenol, bisphenol A and 17α -ethinylestradiol in wastewater using solid-phase microextraction and gas chromatography—mass spectrometry 988(2003)41

"Cold" solid-phase microextraction method for the determination of volatile halocarbons present in the atmosphere at ultra-trace levels 988(2003)167

Competitive extraction of multi-component contaminants in water by Carboxen-polydimethylsiloxane fiber during solid-phase microextraction 988(2003)177

Determination of ethylene oxide by solid-phase microextraction device with on-fiber derivatization 991(2003)1

Determination of major compounds in sweet wines by headspace solid-phase microextraction and gas chromatography 991(2003)13

Detection of VX contamination in soil through solid-phase microextraction sampling and gas chromatography/mass spectrometry of the VX degradation product bis(diisopropylaminoethyl)disulfide 992(2003)1

Systematic error in automated in-tube solid-phase microextraction 995(2003)1

Use of solid-phase micro-extraction as a sampling technique in the determination of volatiles emitted by flowers, isolated flower parts and pollen 998(2003)229

Solid-phase microextraction fibre—water distribution constants of more hydrophobic organic compounds and their correlations with octanol—water partition coefficients 999(2003)35

On-site calibration method based on stepwise solid-phase microextraction 999(2003)43

Physico-chemical approach to study organotin sorption desorption during solid-phase microextraction 999(2003)61

Development of a quantification method for the analysis of malodorous sulphur compounds in gaseous industrial effluents by solid-phase microextraction and gas chromatography-pulsed flame photometric detection 999(2003)71

Solid-phase microextraction for herbicide determination in environmental samples (Review) 999(2003)103

Simultaneous determination of "earthy-musty" odorous haloanisoles and their corresponding halophenols in water samples using solid-phase microextraction coupled to gas chromatography with electron-capture detection 999(2003)135

Multiple headspace solid-phase microextraction for the quantitative determination of volatile organic compounds in multilayer packagings 999(2003)155

Determination of musk compounds in sewage treatment plant sludge samples by solid-phase microextraction 999(2003)185

Use of solid-phase microextraction coupled with gas chromatography for the determination of residual solvents in pharmaceutical products 999(2003)195

Before the injection—modern methods of sample preparation for separation techniques (Review) 1000(2003)3

Miniaturized sample preparation combined with liquid phase separations (Review) 1000(2003)53

Solid-phase trapping

Development of supercritical fluid extraction with a solid-phase trapping for fast estimation of toxic load of polychlorinated dibenzo-p-dioxins-dibenzofurans in sawmill soil 975(2002)189

Solid-phase trapping solvent extraction

Comparison of different extraction methods for the analysis of fragrances from Lavandula species by gas chromatography-mass spectrometry 982(2002)31

Solubility

Column selectivity in reversed-phase liquid chromatography. III. The physico-chemical basis of selectivity 961(2002)217

Inverse gas chromatographic measurement of solubility parameters in liquid crystalline systems 964(2002)199

Characterization of crude oils by inverse gas chromatography 969(2002)207

Determination of the solubility of inorganic salts by headspace gas chromatography 996(2003)157

Solute transfer

Thermodynamics and kinetics of solute transfer in reversedphase liquid chromatography 987(2003)3

Solvation

Effect of the counter-anion type and concentration on the liquid chromatography retention of β -blockers 964(2002)179

Characterization of solvation properties of lipid bilayer membranes in liposome electrokinetic chromatography 973(2002)167

Erratum to "Effect of the counter-anion type and concentration on the liquid chromatography regention of β -blockers" [J. Chromatogr. A, 964 (2002) 179–187] 982(2002)313

Solvation parameter model

Column selectivity from the perspective of the solvation parameter model (Review) 965(2002)263

Prediction of internal standards in reversed-phase liquid chromatography. III. Evaluation of an alternative solvation parameter model to correlate and predict the retention of ionizable compounds 982(2002)209

Solvent extraction

Recent applications of sample preparation techniques in food analysis (Review) 975(2002)47

Before the injection—modern methods of sample preparation for separation techniques (Review) 1000(2003)3

Solvent microextraction

Analytical characteristics of the determination of benzene, toluene, ethylbenzene and xylenes in water by headspace solvent microextraction 977(2002)143

Screening method for polycyclic aromatic hydrocarbons in soil using hollow fiber membrane solvent microextraction 982(2002)201

Headspace microdrop analysis—an alternative test method for gasoline diluent and benzene, toluene, ethylbenzene and xylenes in used engine oils 983(2003)205

Solvent-plug peak

Breakthrough of polymers in interactive liquid chromatography 982(2002)55

Effect of preparatory conditions on the performance of photopolymerized sol-gel monoliths for capillary electrochromatography 961(2002)45

Control of electroosmotic flow in zirconia-coated capillaries 971(2002)199

Hydroxyfullerene as a novel coating for solid-phase microextraction fiber with sol-gel technology 978(2002)37

Evaluation of a sol-gel derived carbon composite electrode as an amperometric detector for capillary electrophoresis 991(2003)109

Silica gel-based monoliths prepared by the sol-gel method: Facts and figures (Review) 1000(2003)801

Solvent uptake

Gradient elution in normal-phase high-performance liquid chromatographic systems 965(2002)239

Sonication-assisted extraction

Dynamic sonication-assisted solvent extraction of organophosphate esters in air samples 957(2002)227

Multiresidue analysis of fungicides in soil by sonication-assisted extraction in small columns and gas chromatography 976(2002)319

Determination of organophosphate esters in air samples by dynamic sonication-assisted solvent extraction coupled on-line with large-volume injection gas chromatography utilizing a programmed-temperature vaporizer 993(2003)103

Sorbent extraction

Recent applications of sample preparation techniques in food analysis (Review) 975(2002)47

Sorbents

see also Adsorbents

Retention characteristics and practical applications of carbon sorbents (Review) 975(2002)229

Nickel and copper complexes of a chelating methacrylate sorbent in the purification of chitinases and specific immunoglobulin G₁ by immobilized metal ion affinity chromatography 983(2003)125

Application of new high-performance liquid chromatography and solid-phase extraction materials to the analysis of pesticides in human urine 987(2003)381

Sorocea bomplandii

Use of on-line liquid chromatography-nuclear magnetic resonance spectroscopy for the rapid investigation of flavonoids from *Sorocea bomplandii* 953(2002)287

Sorption properties

Using different types of capillary chromatographic columns as denudation traps: a comparison of sorption properties 977(2002)115

Soy sauce

Sensitive method for the determination of 1,3-dichloropropan-2ol and 3-chloropropane-1,2-diol in soy sauce by capillary gas chromatography with mass spectrometric detection 952(2002)185

Soybean

Determination of daidzein and genistein in soybean foods by automated on-line in-tube solid-phase microextraction coupled to high-performance liquid chromatography 986(2003)169

Erratum to "Reproducibility of the high-performance liquid chromatographic fingerprints obtained from two soybean cultivars and a selected progeny". [J. Chromatogr. A, 915 (2001) 61–74] 989(2003)317

Identification of flavone aglycones and glycosides in soybean pods by liquid chromatography-tandem mass spectrometry 991(2003)61

Speciation

Capillary electrophoresis-inductively coupled plasma-mass spectrometry: an attractive complementary technique for elemental speciation analysis (Review) 975(2002)245

The potential of organic (electrospray- and atmospheric pressure chemical ionisation) mass spectrometric techniques coupled to liquid-phase separation for speciation analysis (Review) 1000(2003)841

Stability constants

Indirect capillary electrophoresis with 8-anilino-1-naphthalenesulfonic acid as a fluorescence probe for determining the apparent stability constant of an inclusion complex formed between a cyclodextrin and a solute 987(2003)485

Isotachophoretic determination of stability constants of Ho and Y complexes with diethylenetriaminepentaacetic acid and 1,4,7,10-tetraazadodecane-N,N',N",N"'-tetraacetic acid 990(2003)311

Stability studies

Deferred standards, an on-line qualification, validation and system stability probe for chromatographic assay 958(2002)79

Improvement of the long-term stability of polyimide-coated fused-silica capillaries used in capillary electrophoresis and capillary electrochromatography 961(2002)35

Determination of recombinant hirudin structural deviants by capillary zone electrophoresis augmented with buffer additives 979(2002)217

High-performance liquid chromatographic stationary phases based on poly(methyloctylsiloxane) immobilized on silica. III. Stability evaluations 987(2003)93

Systematic development and validation of stability indicating micellar electrokinetic chromatography methods for early stage drug candidates 988(2003)297

Studies on the long-term thermal stability of stationary phases in subcritical water chromatography 989(2003)55

Stabilizers

Highly sensitive determination of a polymeric hindered amine light stabilizer in polypropylene by reactive thermal desorption—gas chromatography using nitrogen-specific detection 993(2003)137

Standard deviation

How to estimate moments and quantiles of environmental data sets with non-detected observations? A case study on volatile organic compounds in marine water samples 975(2002)123

Stationary phases

see also Adsorbents, Affinity adsorbents, Chiral stationary phases, Ion exchangers and Sorbents

Column selectivity from the perspective of the solvation parameter model (Review) 965(2002)263

Behavior of neutral solutes in pressurized flow driven electrochromatography using a mixed stationary phase of ODS and anion-exchange 995(2003)209

Stationary phases, electrochromatography

Capillary electrochromatography of peptides on a column packed with tentacular weak cation-exchanger particles 953(2002)239

Monolithic stationary phases for liquid chromatography and capillary electrochromatography (Review) 954(2002)5

Effect of preparatory conditions on the performance of photopolymerized sol-gel monoliths for capillary electrochromatography 961(2002)45

Capillary electrochromatography of proteins with polymer-based strong-cation-exchanger microspheres 965(2002)83

Performance of metal complex substituted polysiloxanes in capillary electrophoresis and capillary electrochromatography 967(2002)289

Polyrotaxane approach for synthesis of continuous beds for capillary electrochromatography 971(2002)225

Quantitative structure–retention relationships in comparative studies of behavior of stationary phases under high-performance liquid chromatography and capillary electrochromatography conditions 977(2002)193

Novel surface modification of polymer-based separation media controlling separation selectivity, retentivity and generation of electroosmotic flow 979(2002)3

Capillary electrochromatographic separation of non-steroidal anti-inflammatory drugs with a histidine bonded phase 982(2002)293

Enantiomeric separation of acidic compounds of pharmaceutical interest by capillary electrochromatography employing glycopeptide antibiotic stationary phases 994(2003)227

Silica gel-based monoliths prepared by the sol-gel method: Facts and figures (Review) 1000(2003)801

Stationary phases, GC

Effects of solvent density on retention in gas-liquid chromatography. I. Alkanes solutes in polyethylene glycol stationary phases 953(2002)151

Gas chromatography for in situ analysis of a cometary nucleus. III. Multi-capillary column system for the cometary sampling and composition experiment of the Rosetta lander probe 953(2002)165

Influence of chromatographic conditions on separation in comprehensive gas chromatography 962(2002)135

Ketoimino groups as silica surface modifiers 969(2002)133

Applications of inverse gas chromatography in the study of liquid crystalline stationary phases 969(2002)193

Wall-coated open-tubular column chromatography on an organo-clay stationary phase 973(2002)143

Gas chromatography for in situ analysis of a cometary nucleus. IV. Study of capillary column robustness for space application 982(2002)303

Carrier gas as a new factor influencing the selectivity of the gas-stationary liquid phase chromatographic system 985(2003)57

Titanium(IV) tungstosilicate and titanium(IV) tungstophosphate: two new inorganic ion exchangers 987(2003)147

Effects of solvent density on retention in gas-liquid chromatography. II. Polar solutes in poly(ethylene glycol) stationary phases 989(2003)265

Changes in the order of elution of some organic compounds in high-resolution gas chromatography on polar columns depending on the injection method and water content in the sample 992(2003)199

Chromatographic properties of tetramethyl-*p*-silphenylene–dimethyl, diphenylsiloxane copolymers as stationary phases for gas—liquid chromatography 993(2003)59

Stationary phases, LC

Modified aluminas as chromatographic supports for highperformance liquid chromatography (Review) 952(2002)1

Protein separation using membrane chromatography: opportunities and challenges (Review) 952(2002)13

Method for measuring the logarithm of the octanol-water partition coefficient by using short octadecyl-poly(vinyl alcohol) high-performance liquid chromatography columns 952(2002)47

Evaluation of *n*-valeraldehyde modified chitosan as a matrix for hydrophobic interaction chromatography 952(2002)79

Immobilized artificial membrane liquid chromatography: proposed guidelines for technical optimization of retention measurements 953(2002)39

Evaluation of the stability and selectivity for various adjustable stationary phases using zirconium oxide supports in high-performance liquid chromatography 953(2002)67

Fast ion chromatography of common inorganic anions on a short ODS column permanently coated with didodecyldimethylammonium bromide 953(2002)299

Monolithic stationary phases for liquid chromatography and capillary electrochromatography (Review) 954(2002)5

Minimal number of chromatographic test parameters for the characterisation of reversed-phase liquid chromatographic stationary phases 954(2002)99

Purification of the specific immunoglobulin G_1 by immobilized metal ion affinity chromatography using nickel complexes of chelating porous and nonporous polymeric sorbents based on poly(methacrylic esters). Effect of polymer structure 954(2002)115

Stationary phase effects on the dynamic affinity of low-molecular-mass displacers 954(2002)127

Galactosyl-biomimetic dye-ligands for the purification of *Dactylium dendroides* galactose oxidase 954(2002)137

Chromatographic behaviour of selected steroids and their inclusion complexes with β -cyclodextrin on octadecylsilica stationary phases with different carbon loads 955(2002)71

Ion-exchange separation of proteins by polyallylamine-grafted cellulose gel 955(2002)191

Recent developments in ion chromatography (Review) 956(2002)3

Adjustable-capacity anion-exchange separator 956(2002)35

Determination of total acidity and of divalent cations by ion chromatography with n-hexadecylphosphocholine as the stationary phase 956(2002)139

Simultaneous separation of common mono- and divalent cations on a calcinated silica gel column by ion chromatography with indirect photometric detection and aromatic monoamines—oxalic acid, containing crown ethers, used as eluent 956(2002)147

Retention behavior of common mono- and divalent cations on calcinated silica gel columns in ion chromatography with conductimetric detection and the use of nitric acid, containing crown ethers, as eluents 956(2002)159

Simultaneous separation of common mono- and divalent cations on an acid-treated silica gel column by ion chromatography with indirect photometric detection and tyramine—oxalic acid, containing 18-crown-6 as eluent 956(2002)173

Adsorption equilibria of butyl- and amylbenzene on monolithic silica-based columns 957(2002)111

Characterization and comparison of the chromatographic performance of conventional, polar-embedded, and polar-endcapped reversed-phase liquid chromatography stationary phases 957(2002)149

Aqueous chromatography utilizing hydrophobicity-modified anionic temperature-responsive hydrogel for stationary phases 958(2002)109

Study of polar and nonpolar substituted benzenes and aromatic isomers on carbon-coated zirconia and alkyl bonded phases 958(2002)121

Surface and pore diffusion in macroporous and gel-filled gigaporous stationary phases for protein chromatography 959(2002)65

Micropreparative fractionation of DNA fragments on metathesisbased monoliths: influence of stoichiometry on separation 959(2002)121

Effect of molecular interactions on retention and selectivity in reversed-phase liquid chromatography 960(2002)69

Monolithic silica columns for high-efficiency separations by high-performance liquid chromatography 960(2002)85

Monolithic silica columns with various skeleton sizes and through-pore sizes for capillary liquid chromatography 961(2002)53

High-performance liquid chromatographic separation of carbohydrates on a stationary phase prepared from polystyrene-based resin and novel amines 961(2002)89

Column selectivity in reversed-phase liquid chromatography. I. A general quantitative relationship 961(2002)171

Column selectivity in reversed-phase liquid chromatography. II. Effect of a change in conditions 961(2002)195

Column selectivity in reversed-phase liquid chromatography. III. The physico-chemical basis of selectivity 961(2002)217

Chromatographic characteristics of cholesterol-imprinted polymers prepared by covalent and non-covalent imprinting methods 962(2002)69

Characterisation of reversed-phase stationary phases for the liquid chromatographic analysis of basic pharmaceuticals by thermodynamic data 964(2002)67

Organic modifiers for the separation of organic acids and bases by liquid chromatography 964(2002)91

Retention of alkali, alkaline earth and transition metals on an itaconic acid cation-exchange column. Eluent pH, ionic strength and temperature effects upon selectivity 964(2002)113

Atypical silica-based column packings for high-performance liquid chromatography 965(2002)25

Monolithic silica columns for high-efficiency chromatographic separations (Review) 965(2002)35

Comparison of conventional microparticulate and a monolithic reversed-phase column for high-efficiency fast liquid chromatography of basic compounds 965(2002)51

Hypercross-linked polystyrene and its potentials for liquid chromatography: a mini-review (Review) 965(2002)65

Analysis of the *Cinchona* alkaloids by high-performance liquid chromatography and other separation techniques (Review) 967(2002)1

Preparation of immunoaffinity columns for direct enantiomeric separation of amphetamine and/or methamphetamine 967(2002)191

Mixed-mode reversed-phase and ion-exchange separations of cationic analytes on polybutadiene-coated zirconia 968(2002)17

Characterisation of the chromatographic properties of a silicapolypyrrole composite stationary phase by inverse liquid chromatography 969(2002)167

DNA-induced inter-particle cross-linking during expanded bed adsorption chromatography. Impact on future support design 971(2002)73

Synthesis, characterization and liquid chromatographic behaviours of a new chemically bonded liquid crystal 971(2002)87

Protein adsorption on novel acrylamido-based polymeric ionexchangers. IV. Effects of protein size on adsorption capacity and rate 971(2002)105 Hydrophobic interaction chromatography of proteins. I. Comparison of selectivity 972(2002)3

Evaluation and applications of a new dye affinity adsorbent 972(2002)21

Eluotropic strength in non-aqueous liquid chromatography with porous graphitic carbon 973(2002)61

Size-exclusion chromatography of low-molecular-mass polymers using mesoporous silica 973(2002)97

Use of a novel cation-exchange restricted-access material for automated sample clean-up prior to the determination of basic drugs in plasma by liquid chromatography 975(2002)145

Retention characteristics and practical applications of carbon sorbents (Review) 975(2002)229

Two dimensional reversed-phase–reversed-phase separations. Isomeric separations incorporating C_{18} and carbon clad zirconia stationary phases 975(2002)285

Evaluation of high-performance liquid chromatography column retentivity using macromolecular probes. II. Silanophilic interactivity traced by highly polar polymers 976(2002)27

Chromatography of microbial cells using continuous supermacroporous affinity and ion-exchange columns 977(2002)27

Characterisation of reversed-phase liquid chromatographic columns by chromatographic tests. Evaluation of 36 test parameters: repeatability, reproducibility and correlation 977(2002)39

Blue Chitin columns for the extraction of heterocyclic amines from cooked meat 977(2002)97

Quantitative structure–retention relationships in comparative studies of behavior of stationary phases under high-performance liquid chromatography and capillary electrochromatography conditions 977(2002)193

Visualization of bed compression in an axial compression liquid chromatography column 977(2002)213

Novel surface modification of polymer-based separation media controlling separation selectivity, retentivity and generation of electroosmotic flow 979(2002)3

Surface area determination of a polystyrene-divinylbenzene chromatographic packing material via ionic amphiphile adsorption from aqueous mobile phases and application of Gouy-Chapman theory 982(2002)49

Column chromatographic separation of uranium(VI) and other elements using poly(dibenzo-18-crown-6) and ascorbic acid medium 983(2003)277

In flow activation of diol-silica with cyanogen bromide and triethylamine for preparing high-performance affinity chromatographic columns 984(2003)9

Comparison of model monomeric and polymeric alkyl stationary phases on silica using sum-frequency spectroscopy 984(2003)19

On-line solid-phase extraction of ceramides from yeast with ceramide III imprinted monolith 984(2003)173

Molecularly imprinted monolithic stationary phases for liquid chromatographic separation of enantiomers and diastereomers 984(2003)273

Ion chromatography on reversed-phase materials coated with mixed cationic and nonionic surfactants 985(2003)359

Capillary-channeled polymer fibers as stationary phases in liquid chromatography separations 986(2003)17

Comparison of the acidity of residual silanol groups in several liquid chromatography columns 986(2003)33

Study of tryptophan enantiomer binding to a teicoplanin-based stationary phase using the perturbation technique. Investigation of the role of sodium perchlorate in solute retention and enantioselectivity 986(2003)45

Cholesterol bonded phase as a separation medium in liquid chromatography. Evaluation of properties and applications 986(2003)253

Studies on the separation of hydronium ion using surfactantmodified reversed-phase stationary phases and eluents containing an acidified electrolyte 986(2003)263

Comparison of peak shapes obtained with volatile (mass spectrometry-compatible) buffers and conventional buffers in reversed-phase high-performance liquid chromatography of bases on particulate and monolithic columns 987(2003)17

Hypercrosslinked polystyrene as a novel type of highperformance liquid chromatography column packing material. Mechanisms of retention 987(2003)67

Preparation of a polybutadiene stationary phase immobilized by γ radiation for reversed-phase high-performance liquid chromatography 987(2003)77

Chromatographic evaluation of self-immobilized stationary phases for reversed-phase liquid chromatography 987(2003)87

High-performance liquid chromatographic stationary phases based on poly(methyloctylsiloxane) immobilized on silica. III. Stability evaluations 987(2003)93

Characterization of a novel diol column for high-performance liquid chromatography 987(2003)119

New generation of sterically protected C_{18} stationary phases containing embedded urea groups for use in high-performance liquid chromatography 987(2003)127

Evaluation of the applicability and the stability of a C_{18} stationary phase containing embedded urea groups 987(2003)139

Titanium(IV) tungstosilicate and titanium(IV) tungstophosphate: two new inorganic ion exchangers 987(2003)147

Separation of proteins on polymeric stationary phases grafted with various amine groups 987(2003)323

Application of new high-performance liquid chromatography and solid-phase extraction materials to the analysis of pesticides in human urine 987(2003)381

Binding of environmental pollutants to the corn protein zein studied by high-performance liquid chromatography 987(2003)403

Enantiomeric resolution of a series of chiral sulfoxides by highperformance liquid chromatography on polysaccharide-based columns with multimodal elution 987(2003)445

Determining orthogonal chromatographic systems prior to the development of methods to characterise impurities in drug substances 988(2003)77

Studies on the long-term thermal stability of stationary phases in subcritical water chromatography 989(2003)55

Influence of the particle porosity on chromatographic band profiles 989(2003)207

Reproducible preparative liquid chromatography columns 992(2003)41

Synthesis and evaluation of a C_8 stationary phase on a silical hydride surface by hydrosilation of 1-octyne 992(2003)57

Axial and radial diffusion coefficients in a liquid chromatography column and bed heterogeneity 994(2003)1

Chromatographic classification and comparison of commercially available reversed-phase liquid chromatographic columns using principal component analysis 994(2003)13

Fractal calibration in size-exclusion chromatography. I. An introduction 996(2003)33

Development and validation of an improved method for the analysis of vancomycin by liquid chromatography. Selectivity of reversed-phase columns towards vancomycin components 996(2003)115

Environmental applications of a cryptand adjustable-capacity anion-exchange separator 997(2003)33

Separation of aliphatic carboxylic acids and benzenecarboxylic acids by ion-exclusion chromatography with various cation-exchange resin columns and sulfuric acid as eluent 997(2003)117

Monolithic octadecylsilyl-silica gel column for the high-speed ion chromatographic determination of acidity 997(2003)183

Creation and characteristics of phosphatidylcholine stationary phases for the chromatographic separation of inorganic anions 997(2003)237

Column selectivity in reversed-phase liquid chromatography. IV. Type-B alkyl-silica columns (Review) 1000(2003)757

Silica gel-based monoliths prepared by the sol-gel method: Facts and figures (Review) 1000(2003)801

Stationary phases, SFC

Interaction mechanisms on octadecyl packed columns in subcritical fluid chromatography with CO₂-modifier mobile phases 975(2002)335

Super/subcritical fluid chromatography chiral separations with macrocyclic glycopeptide stationary phases 978(2002)185

Statistical analysis

Reproducible digestion method for ion-chromatographic analysis of anions in 30% hydrogen peroxide 956(2002)23

Determination of chloride and sulfate in semiconductor-grade etchants comprised of acetic acid, nitric acid and phosphoric acid 997(2003)269

Stepwise solid-phase microextraction

On-site calibration method based on stepwise solid-phase microextraction 999(2003)43

Stereoisomers

Separation of stereoisomers of several furan derivatives by capillary gas chromatography-mass spectrometry, supercritical fluid chromatography, and liquid chromatography using chiral stationary phases 977(2002)125

Liquid chromatography-mass spectrometry of spiroketal stereoisomers of pectenotoxins and the analysis of novel pectenotoxin isomers in the toxic dinoflagellate *Dinophysis acuta* from New Zealand 992(2003)141

Steric factors

Enantiomeric separations using poly(L-valine) and poly(L-leucine) surfactants. Investigation of steric factors near the chiral center 966(2002)179

Steric hindrance

Coupling of inverse gas chromatography at infinite dilution (IGC-ID) with a controlled modification of a solid surface 969(2002)93

Steric inversion diameter

Practical implications of ionic strength effects on particle retention in thermal field-flow fractionation 984(2003)67

Steric mass action

Steric mass-action model for dye-ligand affinity adsorption of protein 957(2002)89

Steric selectivity

Column selectivity in reversed-phase liquid chromatography. III. The physico-chemical basis of selectivity 961(2002)217

Column selectivity in reversed-phase liquid chromatography. IV. Type-B alkyl-silica columns (Review) 1000(2003)757

Stir bar sorptive extraction

Application of stir bar sorptive extraction to the determination of polycyclic aromatic hydrocarbons in aqueous samples 963(2002)225

Comparison of microextraction procedures to determine pesticides in oranges by liquid chromatography-mass spectrometry 970(2002)201

Analysis of volatiles of malt whisky by solid-phase microextraction and stir bar sorptive extraction 985(2003)221

Determination of stale-flavor carbonyl compounds in beer by stir bar sorptive extraction with in-situ derivatization and thermal desorption—gas chromatography—mass spectrometry 986(2003)101

Analysis of 35 priority semivolatile compounds in water by stir bar sorptive extraction-thermal desorption-gas chromatographymass spectrometry. I. Method optimisation 999(2003)91

Multi-residue screening of pesticides in vegetables, fruits and baby food by stir bar sorptive extraction—thermal desorption—capillary gas chromatography—mass spectrometry (Review) 1000(2003)299

St. John's Wort

Use of an on-line, precolumn photochemical reactor in highperformance liquid chromatography of naphthodianthrones in *Hypericum perforatum* preparations 987(2003)181

Stochastic simulation

Stochastic simulation of the partition mechanism with a heterogeneous surface phase 959(2002)49

Strawberry

Prediction of chromatographic retention, pK_a values and optimization of the separation of polyphenolic acids in strawberries 975(2002)299

Streamline particles

Particle size and density distributions of two dense matrices in an expanded bed system 977(2002)173

Structural elucidation

Structural elucidation of metabolites of ritonavir and indinavir by liquid chromatography-mass spectrometry 974(2002)91

Structural investigation

Liquid chromatography with ultraviolet absorbance—mass spectrometric detection and with nuclear magnetic resonance spectrometry: a powerful combination for the on-line structural investigation of plant metabolites (Review) 1000(2003)437

Structure-activity relationships

Prediction of electrophoretic mobilities of alkyl- and alkenylpyridines in capillary electrophoresis using artificial neural networks 971(2002)207

Potentiometric detection of exogenic beta-adrenergic substances in liquid chromatography 973(2002)85

Structure-property relationships

Simultaneous modeling of the Kovats retention indices on OV-1 and SE-54 stationary phases using artificial neural networks 955(2002)273

Structure-retention relationships

Combination of linear solvent strength model and quantitative structure–retention relationships as a comprehensive procedure of approximate prediction of retention in gradient liquid chromatography 962(2002)41

Silver ion liquid-chromatographic mobility of plant diacylglycerols as a function of their composition and spatial arrangement 967(2002)269

Structure-retention diagrams of ceramides established for their identification 973(2002)69

Quantitative structure–retention relationships in comparative studies of behavior of stationary phases under high-performance liquid chromatography and capillary electrochromatography conditions 977(2002)193

Quantitative structure-retention relationships of phenolic compounds without Hammett's equations 985(2003)343

Chemometric comparison of recent chromatographic and electrophoretic methods in a quantitative structure-retention and retention-activity relationship context 986(2003)227

Predictive approaches to gradient retention based on analyte structural descriptors from calculation chemistry 987(2003)29

Classification and regression tree analysis for molecular descriptor selection and retention prediction in chromatographic quantitative structure–retention relationship studies 988(2003)261

Sub-ambient pressure gas chromatography-mass spectrometry

Complete characterisation of lanolin steryl esters by sub-ambient pressure gas chromatography—mass spectrometry in the electron impact and chemical ionisation modes 970(2002)249

Subcritical fluid chromatography

Interaction mechanisms on octadecyl packed columns in subcritical fluid chromatography with CO₂-modifier mobile phases 975(2002)335

Subcritical mobile phase

Super/subcritical fluid chromatography chiral separations with macrocyclic glycopeptide stationary phases 978(2002)185

Subcritical water chromatography

Studies on the long-term thermal stability of stationary phases in subcritical water chromatography 989(2003)55

Subcritical water extraction

New sample preparation technique for the determination of avoparcin in pressurized hot water extracts from kidney samples 954(2002)41

Coupling continuous subcritical water extraction, filtration, preconcentration, chromatographic separation and UV detection for the determination of chlorophenoxy acid herbicides in soils 959(2002)25

Current use of pressurised liquid extraction and subcritical water extraction in environmental analysis (Review) 975(2002)3

Screening and determination of pesticides in soil using continuous subcritical water extraction and gas chromatographymass spectrometry 994(2003)169

Substituent effects

Evaluation of a penicillin G acylase-based chiral stationary phase towards a series of 2-aryloxyalkanoic acids, isosteric analogs and 2-arylpropionic acids 958(2002)131

Sugar cane

Applications of ion chromatography in cane sugar research and process problems 956(2002)187

Sum-frequency spectroscopy

Comparison of model monomeric and polymeric alkyl stationary phases on silica using sum-frequency spectroscopy 984(2003)19

Sunscreens

Gas chromatographic determination of 2-hydroxy-4-methoxybenzophenone and octyldimethyl-*p*-aminobenzoic acid sunscreen agents in swimming pool and bathing waters by solid-phase microextraction 967(2002)243

Determination of water-soluble UV-filters in sunscreen sprays by liquid chromatography 977(2002)277

Determination of benzophenones in a cosmetic matrix by supercritical fluid extraction and capillary electrophoresis 987(2003)269

Supercritical fluid chromatography

Chromatographic shape selectivity with carbon dioxide—acetonitrile mobile phases. Effect of mobile phase composition and density 971(2002)61

Characterization of triglycerides in vegetable oils by silver-ion packed-column supercritical fluid chromatography coupled to mass spectroscopy with atmospheric pressure chemical ionization and coordination ion spray 974(2002)231

Super/subcritical fluid chromatography chiral separations with macrocyclic glycopeptide stationary phases 978(2002)185

Anomalous effects of helium head pressure carbon dioxide in supercritical fluid chromatography and extraction 986(2003)129

Separation of triadimefon and triadimenol enantiomers and diastereoisomers by supercritical fluid chromatography 986(2003)135

Analysis of long-chain polyprenols using supercritical fluid chromatography and matrix-assisted laser desorption ionization time-of-flight mass spectrometry 995(2003)203

Supercritical fluid extraction

see also Extraction methods

Harmful azo colorants in leather. Determination based on their cleavage and extraction of corresponding carcinogenic aromatic amines using modern extraction techniques 955(2002)215

Nordic laboratory intercomparison of supercritical fluid extraction for the determination of total petroleum hydrocarbon, polychlorinated biphenyls and polycyclic aromatic hydrocarbons in soil 958(2002)239

On-line coupling of supercritical fluid extraction with highperformance liquid chromatography for the determination of explosives in vapour phases 963(2002)73

Optimization of parameters for the supercritical fluid extraction in the determination of N-nitrosamines in rubbers 963(2002)419

Optimization of the extraction of azo colorants used in toy products 963(2002)427

Supercritical fluid extraction for the detection of 2-dodecylcyclobutanone in low dose irradiated plant foods 968(2002)251

Thermodynamic and kinetic models for the extraction of essential oil from savory and polycyclic aromatic hydrocarbons from soil with hot (subcritical) water and supercritical ${\rm CO_2}$ 975(2002)175

Development of supercritical fluid extraction with a solid-phase trapping for fast estimation of toxic load of polychlorinated dibenzo-p-dioxins-dibenzofurans in sawmill soil 975(2002)189

Determination of *N*-nitrosamines in latex by sequential supercritical fluid extraction and derivatization 976(2002)301

Monitoring polychlorinated biphenyls in pine needles using supercritical fluid extraction as a pretreatment method 976(2002)393

Fast supercritical fluid extraction and high-resolution gas chromatography with electron-capture and flame photometric detection for multiresidue screening of organochlorine and organophosphorus pesticides in Brazil's medicinal plants 985(2003)159

Anomalous effects of helium head pressure carbon dioxide in supercritical fluid chromatography and extraction 986(2003)129

Determination of total petroleum hydrocarbons in soil by dynamic on-line supercritical fluid extraction with infrared photometric detection 986(2003)319

Determination of benzophenones in a cosmetic matrix by supercritical fluid extraction and capillary electrophoresis 987(2003)269

Separation of polyphenolic compounds extracted from plant matrices using capillary electrophoresis 990(2003)225

Feasibility of supercritical fluid extraction with on-line coupling of reversed-phase liquid chromatography for quantitative analysis of polymer additives 995(2003)227

Before the injection—modern methods of sample preparation for separation techniques (Review) 1000(2003)3

Superheated water chromatography

Analysis of a ginger extract by high-performance liquid chromatography coupled to nuclear magnetic resonance spectroscopy using superheated deuterium oxide as the mobile phase 991(2003)143

Superheated water extraction

Extractions with superheated water (Review) 975(2002)31

Supersonic GC-MS

Fast, high-sensitivity, multipesticide analysis of complex mixtures with supersonic gas chromatography-mass spectrometry 974(2002)185

Extending the range of compounds amenable for gas chromatography—mass spectometric analysis 991(2003)217

Support design

DNA-induced inter-particle cross-linking during expanded bed adsorption chromatography. Impact on future support design 971(2002)73

Supports

Modified aluminas as chromatographic supports for highperformance liquid chromatography (Review) 952(2002)1

Suppressors

Recent advances in ion chromatography suppressor improve anion separation and detection 956(2002)15

Ion chromatographic system with a novel switching suppression device 956(2002)53

Developments in suppressor technology for inorganic ion analysis by ion chromatography using conductivity detection (Review) 1000(2003)725

Surface area

Characterization of polyarylamide fibers by inverse gas chromatography 962(2002)153

New approach to characterise physicochemical properties of solid substrates by inverse gas chromatography at infinite dilution. I. Some new methods to determine the surface areas of some molecules adsorbed on solid surfaces 969(2002)17

Surface area determination

Surface area determination of a polystyrene-divinylbenzene chromatographic packing material via ionic amphiphile adsorption from aqueous mobile phases and application of Gouy-Chapman theory 982(2002)49

Surface characteristics

Acid-base and surface energy characterization of grafted polyethylene using inverse gas chromatography 969(2002)73

Coupling of inverse gas chromatography at infinite dilution (IGC-ID) with a controlled modification of a solid surface 969(2002)93

Characterisation of the surface Lewis acid-base properties of poly(butylene terephthalate) by inverse gas chromatography 969(2002)111

Influence of poly(methyl methacrylate) impregnation ratio on the surface properties of fumed silica and on the glassy temperature of poly(methyl methacrylate) using inverse gas chromatographic analysis 969(2002)143

Surface heterogeneity and surface area from linear inverse gas chromatography. Application to glass fibers 969(2002)153

Surface and thermodynamic characterization of conducting polymers by inverse gas chromatography. I. Polyaniline 969(2002)229

Determination of surface heterogeneity profiles on graphite by finite concentration inverse gas chromatography 969(2002)323

Surface charge

Behavior of neutral solutes in pressurized flow driven electrochromatography using a mixed stationary phase of ODS and anion-exchange 995(2003)209

Surface charge density

Aqueous chromatography utilizing hydrophobicity-modified anionic temperature-responsive hydrogel for stationary phases 958(2002)109

Surface diffusion

New model of surface diffusion in reversed-phase liquid chromatography 961(2002)23

Analysis of diffusion models for protein adsorption to porous anion-exchange adsorbent 962(2002)29

Time-resolved determination of surface diffusion coefficients for physically adsorbed or chemisorbed species on heterogeneous surfaces, by inverse gas chromatography 983(2003)177

Modeling of preparative chromatography processes with slow intraparticle mass transport kinetics 988(2003)219

Surface energy

New approach to characterise physicochemical properties of solid substrates by inverse gas chromatography at infinite dilution. I. Some new methods to determine the surface areas of some molecules adsorbed on solid surfaces 969(2002)17

Surface energy characteristics of toner particles by automated inverse gas chromatography 969(2002)215

Surface free energy

The application of molecular modelling to the interpretation of inverse gas chromatography data 969(2002)49

Effect of moisture on the surface free energy and acid-base properties of mineral oxides 969(2002)59

Effects of dehydration on the apolar surface energetics of inorganic paper fillers 972(2002)241

Surface grafting

Comparison of monomeric and polymeric chiral stationary phases 987(2003)111

Surface homogeneity

Energetic heterogeneity of the surface of a molecularly imprinted polymer studied by high-performance liquid chromatography 964(2002)99

Surface modification

Modified aluminas as chromatographic supports for highperformance liquid chromatography (Review) 952(2002)1

Novel surface modification of polymer-based separation media controlling separation selectivity, retentivity and generation of electroosmotic flow 979(2002)3

Surfactants

see Compound Index

Suspended bed chromatography

Direct enzyme adsorption from an unclarified microbial feedstock using suspended bed chromatography 989(2003)109

Sweeping

Analysis of the herbicides paraquat, diquat and difenzoquat in drinking water by micellar electrokinetic chromatography using sweeping and cation selective exhaustive injection 961(2002)65

Sweeping: concentration mechanism and applications to highsensitivity analysis in capillary electrophoresis (Review) 965(2002)357

On-line sample preconcentration in micellar electrokinetic chromatography using ion-pair reagents 979(2002)131

Separation and on-line concentration of bisphenol A and alkylphenols by micellar electrokinetic chromatography with cationic surfactant 979(2002)425

On-line sample preconcentration in micellar electrokinetic chromatography by sweeping with anionic-zwitterionic mixed micelles 985(2003)435

Determination of pyridine and adenine nucleotide metabolites in *Bacillus subtilis* cell extract by sweeping borate complexation capillary electrophoresis 989(2003)293

On-line preconcentration strategies for trace analysis of metabolites by capillary electrophoresis (Review) 1000(2003)917

Switching valve

Ion chromatographic system with a novel switching suppression device 956(2002)53

Comprehensive two-dimensional liquid chromatography of polymers (Review) 1000(2003)693

Synergetic effect

Utilization of synergetic effect of weak interactions in the design of polymeric sorbents with high sorption selectivity 952(2002)71

Systematic errors

Systematic error in automated in-tube solid-phase microextraction 995(2003)1

System characteristics

Theoretical and experimental study of recycle capillary gas chromatography with carrier gas propelled by a peristaltic pump 993(2003)47

System eigenpeaks

Position and intensity of system (eigen) peaks in capillary zone electrophoresis 960(2002)175

Eigenmobilities in background electrolytes for capillary zone electrophoresis. I. System eigenpeaks and resonance in systems with strong electrolytes 960(2002)187



Tacticity

New approach to characterise physicochemical properties of solid substrates by inverse gas chromatography at infinite dilution. II. Study of the transition temperatures of poly(methyl methacrylate) at various tacticities and of poly(methyl methacrylate) adsorbed on alumina and silica 969(2002)27

Talc

Coupling of inverse gas chromatography at infinite dilution (IGC-ID) with a controlled modification of a solid surface 969(2002)93

Effects of dehydration on the apolar surface energetics of inorganic paper fillers 972(2002)241

Tandem mass spectrometry

see also Mass spectrometry

Analysis of acidic drugs in the effluents of sewage treatment plants using liquid chromatography-electrospray ionization tandem mass spectrometry 952(2002)139

Liquid chromatographic-tandem mass spectrometric determination of selected sulphonamides in milk 960(2002)121

Liquid chromatographic-tandem mass spectrometric determination of nonylphenol polyethoxylates and nonylphenol carboxylic acids in surface water 961(2002)245

Tea

Direct determination of free amino acids and sugars in green tea by anion-exchange chromatography with integrated pulsed amperometric detection 982(2002)237

Temperature effects

Investigations on factors that influence the moving neutralization reaction boundary method for capillary electrophoresis and isoelectric focusing 952(2002)29

Temperature effects on the retention of *n*-alkanes and arenes in helium–squalane gas–liquid chromatography. Experiment and molecular simulation 954(2002)181

Chromatographic behaviour of selected steroids and their inclusion complexes with β -cyclodextrin on octadecylsilica stationary phases with different carbon loads 955(2002)71

Unusual effect of column temperature on chromatographic enantioseparation of dihydropyrimidinone acid and methyl ester on amylose chiral stationary phase 958(2002)69

Effects of temperature on retention of chiral compounds on a ristocetin A chiral stationary phase 958(2002)89

Enantioseparation of various amino acid derivatives on a quinine based chiral anion-exchange selector at variable temperature conditions. Influence of structural parameters of the analytes on the apparent retention and enantioseparation characteristics 960(2002)97

Column selectivity in reversed-phase liquid chromatography. II. Effect of a change in conditions 961(2002)195

Retention of alkali, alkaline earth and transition metals on an itaconic acid cation-exchange column. Eluent pH, ionic strength and temperature effects upon selectivity 964(2002)113

Temperature selectivity in reversed-phase high performance liquid chromatography (Review) 965(2002)195

Simple chamber for temperature-controlled planar chromatography 971(2002)193

Investigations into the chromatographic behavior of a doxorubicin-peptide conjugate 973(2002)27

Temperature dependence of Kováts indices in gas chromatography revisited 973(2002)135

Elevated-temperature ultrahigh-pressure liquid chromatography using very small polybutadiene-coated nonporous zirconia particles 983(2003)83

Protein partitioning in thermoseparating systems of a charged hydrophobically modified ethylene oxide polymer 983(2003)133

Minimum in the temperature dependence of the Kováts retention indices of nitroalkanes and alkanenitriles on an apolar phase 985(2003)11

Retention mechanism of poly(ethylene oxide) in reversed-phase and normal-phase liquid chromatography 986(2003)191

Retention mechanism of fatty alcohol ethoxylates in reversedphase liquid chromatography 986(2003)199

Temperature influence on the dynamic binding capacity of a monolithic ion-exchange column 987(2003)159

Studies on the long-term thermal stability of stationary phases in subcritical water chromatography 989(2003)55

Determination of the absolute mobility and the equivalent ionic conductivity of NpO_2^+ at 25 °C and at infinite dilution by capillary electrophoresis-inductively coupled plasma-mass spectrometry 994(2003)199

Some factors affecting separation and detection of amino acids by high-performance anion-exchange chromatography with integrated pulsed amperometric detection 997(2003)145

High-speed ion chromatographic separation of cations at elevated temperature 997(2003)161

High-temperature liquid chromatography (Review) 1000(2003)743

Temperature gradient

Using temperature gradient gas chromatography to determine or predict vapor pressures and linear solvation energy relationship parameters of highly boiling organic compounds 988(2003)117

Temperature gradient interaction chromatography

Temperature gradient interaction chromatography and matrixassisted laser desorption/ionization time-of-flight mass spectrometry analysis of air terminated polystyryllithium 958(2002)183

Temperature programming

Influence of chromatographic conditions on separation in comprehensive gas chromatography 962(2002)135

Extending the range of compounds amenable for gas chromatography-mass spectometric analysis 991(2003)217

High-temperature liquid chromatography (Review) 1000(2003)743

Temperature selectivity

Temperature selectivity in reversed-phase high performance liquid chromatography (Review) 965(2002)195

Temporal distortion effect

Parcel model for peak shapes in chromatography. Numerical verification of the temporal distortion effect to peak asymmetry 988(2003)233

Test parameters

Minimal number of chromatographic test parameters for the characterisation of reversed-phase liquid chromatographic stationary phases 954(2002)99

Characterisation of reversed-phase liquid chromatographic columns by chromatographic tests. Evaluation of 36 test parameters: repeatability, reproducibility and correlation 977(2002)39

Tetraedron minimum

At-line gas chromatographic-mass spectrometric analysis of fatty acid profiles of green microalgae using a direct thermal desorption interface 959(2002)191

Textiles

Identification of natural dyes in archeological Coptic textiles by liquid chromatography with diode array detection 989(2003)239

Theory of chromatography

Preparative liquid chromatography (Review) 965(2002)129

Thermal degradation

Chemometric detection of thermally degraded samples in the analysis of drugs of abuse with gas chromatography–Fourier-transform infrared spectroscopy 962(2002)161

Thermal desorption

Analyses of the wood preservative component *N*-cyclohexyl-diazeniumdioxide in impregnated pine sapwood by direct thermal desorption–gas chromatography–mass spectrometry 953(2002)199

At-line gas chromatographic-mass spectrometric analysis of fatty acid profiles of green microalgae using a direct thermal desorption interface 959(2002)191

Sensitive indoor air monitoring of monoterpenes using different adsorbents and thermal desorption gas chromatography with mass-selective detection 962(2002)175

Sub-second thermal desorption of a micro-sorbent trap for the analysis of ambient volatile organic compounds 976(2002)39

Determination of volatile organic compounds in ambient air. Comparison of methods 976(2002)369

Determination of dithiocarbamate pesticides in occupational hygiene sampling devices using the isooctane method and comparison with an automatic thermal desorption (ATD) method 984(2003)81

Determination of stale-flavor carbonyl compounds in beer by stir bar sorptive extraction with in-situ derivatization and thermal desorption—gas chromatography—mass spectrometry 986(2003)101

Highly sensitive determination of a polymeric hindered amine light stabilizer in polypropylene by reactive thermal desorption—gas chromatography using nitrogen-specific detection 993(2003)137

Measurement of toxic volatile organic compounds in indoor air of semiconductor foundries using multisorbent adsorption/thermal desorption coupled with gas chromatography-mass spectrometry 996(2003)225

Analysis of 35 priority semivolatile compounds in water by stir bar sorptive extraction-thermal desorption-gas chromatography-mass spectrometry. I. Method optimisation 999(2003)91

Thermal field-flow fractionation

On void time determination in thermal field-flow fractionation 960(2002)165

Retention behavior of metal particle dispersions in aqueous and nonaqueous carriers in thermal field-flow fractionation 983(2003)163

Practical implications of ionic strength effects on particle retention in thermal field-flow fractionation 984(2003)67

Lowering the molecular mass limit of thermal field-flow fractionation for polymer separations 988(2003)285

Thermal lens spectrometry

Microchannel-assisted thermal-lens spectrometry for microchip analysis 987(2003)197

Thermally labile compounds

Extending the range of compounds amenable for gas chromatography—mass spectometric analysis 991(2003)217

Thermodynamic parameters

Erratum to "Characterization of enthalpic events in overloaded ion-exchange chromatography". [J. Chromatogr. A, 944 (2002) 61–68] 952(2002)301

Effects of solvent density on retention in gas-liquid chromatography. I. Alkanes solutes in polyethylene glycol stationary phases 953(2002)151

Temperature effects on the retention of *n*-alkanes and arenes in helium–squalane gas–liquid chromatography. Experiment and molecular simulation 954(2002)181

Gas chromatographic determination of vapour pressure and related thermodynamic properties of monoterpenes and biogenically related compounds 955(2002)105

Extended thermodynamic approach to ion interaction chromatography: a thorough comparison with the electrostatic approach, and further quantitative validation 958(2002)51

New model of surface diffusion in reversed-phase liquid chromatography 961(2002)23

Characterisation of reversed-phase stationary phases for the liquid chromatographic analysis of basic pharmaceuticals by thermodynamic data 964(2002)67

Enthalpic interactions in size exclusion chromatography of pullulan and cellulose in LiCl-*N*,*N*-dimethylacetamide 964(2002)47

Inverse gas chromatographic measurement of solubility parameters in liquid crystalline systems 964(2002)199

Retention behaviour of polystyrene oligomers in reversed-phase liquid chromatography 967(2002)173

Use of inverse gas chromatography to determine thermodynamic parameters of aroma-starch interactions 969(2002)9

New approach to characterise physicochemical properties of solid substrates by inverse gas chromatography at infinite dilution. I. Some new methods to determine the surface areas of some molecules adsorbed on solid surfaces 969(2002)17

New approach to characterise physicochemical properties of solid substrates by inverse gas chromatography at infinite dilution. II. Study of the transition temperatures of poly(methyl methacrylate) at various tacticities and of poly(methyl methacrylate) adsorbed on alumina and silica 969(2002)27

New approach to characterise physicochemical properties of solid substrates by inverse gas chromatography at infinite dilution. III. Determination of the acid-base properties of some solid substrates (polymers, oxides and carbon fibres): a new model 969(2002)37

Effect of moisture on the surface free energy and acid-base properties of mineral oxides 969(2002)59

Acid-base and surface energy characterization of grafted polyethylene using inverse gas chromatography 969(2002)73

Determination of dependencies between the specific retention volumes and the parameters characterising adsorbent properties 969(2002)87

Effect of emulsifiers on surface properties of sucrose by inverse gas chromatography 969(2002)97

Use of inverse gas chromatography to characterize cotton fabrics and their interactions with fragrance molecules at controlled relative humidity 969(2002)103

Characterisation of the surface Lewis acid-base properties of poly(butylene terephthalate) by inverse gas chromatography 969(2002)111

Influence of poly(methyl methacrylate) impregnation ratio on the surface properties of fumed silica and on the glassy temperature of poly(methyl methacrylate) using inverse gas chromatographic analysis 969(2002)143

Surface heterogeneity and surface area from linear inverse gas chromatography. Application to glass fibers 969(2002)153

Surface and thermodynamic characterization of conducting polymers by inverse gas chromatography. I. Polyaniline 969(2002)229

Study of the miscibility of poly(styrene-co-4-vinylbenzoic acid) with poly(ethyl methacrylate) or with poly[ethyl methacrylate-co-(2-N,N-dimethylaminoethyl) methacrylate] by inverse gas chromatography 969(2002)287

Effects of dehydration on the apolar surface energetics of inorganic paper fillers 972(2002)241

Investigations into the chromatographic behavior of a doxorubicin-peptide conjugate 973(2002)27

Temperature dependence of Kováts indices in gas chromatography revisited 973(2002)135

Wall-coated open-tubular column chromatography on an organo-clay stationary phase 973(2002)143

Enthalpy of fuel gas odorants on surrogate soil surfaces by gas chromatography 975(2002)311

Salt effects on the interaction of an amphiphilic model molecule with immobilized phosphatidylcholine monolayers 977(2002)185

Determination of minor conformational changes of a doxorubicin–peptide conjugate under chromatographic conditions 983(2003)73

Minimum in the temperature dependence of the Kováts retention indices of nitroalkanes and alkanenitriles on an apolar phase 985(2003)11

Comparison of the differential isosteric adsorption enthalpies and entropies calculated from chromatographic data 986(2003)89

Thermodynamics and kinetics of solute transfer in reversedphase liquid chromatography 987(2003)3

Interaction of immunoglobulin G with N,N,N',N'-ethylenediaminetetramethylenephosphonic acid-modified zirconia 989(2003)131

Effects of solvent density on retention in gas-liquid chromatography. II. Polar solutes in poly(ethylene glycol) stationary phases 989(2003)265

Prediction of the plate height of capillary columns operated at any inlet pressure of the carrier gas by using few retention data measured under isobaric conditions 994(2003)103

Thermodynamic study of two different chewing-gum bases by inverse gas chromatography 996(2003)189

Thermophoresis

Retention behavior of metal particle dispersions in aqueous and nonaqueous carriers in thermal field-flow fractionation 983(2003)163

Thermoseparation modelling

Protein partitioning in thermoseparating systems of a charged hydrophobically modified ethylene oxide polymer 983(2003)133

Thermoxidation

Sensitive and accurate quantitation of monoepoxy fatty acids in thermoxidized oils by gas-liquid chromatography 982(2002)145

Theta solvent

Scale-up study of high osmotic pressure chromatography for separation of $poly(\varepsilon-caprolactone)$ 996(2003)71

Thin-layer chromatography

see also Planar chromatography

Correlation of retention parameters of pesticides in normal- and reversed-phase systems and their utilization for the separation of a mixture of 14 triazines and urea herbicides by means of two-dimensional thin-layer chromatography 961(2002)277

Thin-layer chromatography: challenges and opportunities (Review) 1000(2003)963

Thraustochytrium ATCC 26185

Preparative separation and purification of squalene from the microalga *Thraustochytrium* ATCC 26185 by high-speed counter-current chromatography 994(2003)37

Time warping algorithm

Chromatographic alignment by warping and dynamic programming as a pre-processing tool for PARAFAC modelling of liquid chromatography—mass spectrometry data 961(2002)237

Time-weighted average sampling

Time-weighted average sampling of airborne *n*-valeraldehyde by a solid-phase microextration device 954(2002)191

Tobacco

see also Cigarette smoke

Determination of pyrethroid residues in tobacco and cigarette smoke by capillary gas chromatography 964(2002)205

Determination of transition metal ions in tobacco as their 2-(2-quinolinylazo)-5-dimethylaminophenol derivatives using reversed-phase liquid chromatography with UV–VIS detection 971(2002)243

Determination of organic acids in tobacco by capillary isotachophoresis 988(2003)161

Tobacco protein separation by aqueous two-phase extraction 989(2003)119

Comprehensive chemical derivatization for gas chromatography—mass spectrometry-based multi-targeted profiling of the major phytohormones 993(2003)89

Toner particles

Surface energy characteristics of toner particles by automated inverse gas chromatography 969(2002)215

Toxaphene

Attempt to unravel the composition of toxaphene by comprehensive two-dimensional gas chromatography with selective detection 994(2003)179

Tovs

Gas chromatography-mass spectrometry determination of the migration of phthalate plasticisers from polyvinyl chloride toys and childcare articles 983(2003)237

Trans-activation responsive element

Structural requirements for conserved Arg⁵² residue for interaction of the human immunodeficiency virus type 1 transactivation responsive element with trans-activator of transcription protein (49–57). Capillary electrophoresis mobility shift assay 968(2002)211

Transdermal drug delivery

Prediction of internal standards in reversed-phase liquid chromatography. II. Selectivity optimization and internal standard prediction for the quantitation of estradiol and levonorgestrel in a transdermal drug delivery formulation based on the linear solvation energy relationships 954(2002)159

Transition temperatures

New approach to characterise physicochemical properties of solid substrates by inverse gas chromatography at infinite dilution. II. Study of the transition temperatures of poly(methyl methacrylate) at various tacticities and of poly(methyl methacrylate) adsorbed on alumina and silica 969(2002)27

Synthesis, characterization and liquid chromatographic behaviours of a new chemically bonded liquid crystal 971(2002)87

Triethylene tetramine hardener

Characterisation of cement pastes by inverse gas chromatography 969(2002)261

Turbulent-flow chromatography

Trace determination of priority pesticides in water by means of high-speed on-line solid-phase extraction—liquid chromatography—tandem mass spectrometry using turbulent-flow chromatography columns for enrichment and a short monolithic column for fast liquid chromatographic separation 960(2002)109

Turmeric

Capillary electrophoresis with amperometric detection of curcumin in Chinese herbal medicine pretreated by solid-phase extraction 962(2002)117

Typical-conditions model

Comparative study of the linear solvation energy relationship, linear solvent strength theory, and typical-conditions model for retention prediction in reversed-phase liquid chromatography 965(2002)3



Ultrafiltration

Liquid chromatographic-tandem mass spectrometric determination of selected sulphonamides in milk 960(2002)121

Process monitoring of anaerobic azo dye degradation by highperformance liquid chromatography—diode array detection continuously coupled to membrane filtration sampling modules 987(2003)395

Ultrahigh-pressure liquid chromatography

Elevated-temperature ultrahigh-pressure liquid chromatography using very small polybutadiene-coated nonporous zirconia particles 983(2003)83

Safety concerns in ultrahigh pressure capillary liquid chromatography using air-driven pumps 991(2003)189

Ultrasound extraction

Ultrasound extraction and thin layer chromatography-flame ionization detection analysis of the lipid fraction in marine mucilage samples 963(2002)363

Ultrasound techniques

Use of ultrasound to monitor the packing of large scale columns, the monitoring of medium compression and the passage of molecules, such as monoclonal antibodies, through the column bed during chromatography 989(2003)79

Umbilicaria proboscidea

Identification of acylated xanthone glycosides by liquid chromatography-atmospheric pressure chemical ionization mass spectrometry in positive and negative modes from the lichen *Umbilicaria proboscidea* 995(2003)109

Urea stationary phases

New generation of sterically protected C_{18} stationary phases containing embedded urea groups for use in high-performance liquid chromatography 987(2003)127

Evaluation of the applicability and the stability of a C_{18} stationary phase containing embedded urea groups 987(2003)139

US Food and Drug Administration

Validation of high-performance liquid chromatography methods for pharmaceutical analysis. Understanding the differences and similarities between validation requirements of the US Food and Drug Administration, the US Pharmacopeia and the International Conference on Harmonization 987(2003)57

US Pharmacopeia

Validation of high-performance liquid chromatography methods for pharmaceutical analysis. Understanding the differences and similarities between validation requirements of the US Food and Drug Administration, the US Pharmacopeia and the International Conference on Harmonization 987(2003)57

UV detection

A comparative study of commercial liquid chromatographic detectors for the analysis of underivatized amino acids 961(2002)9

Comparison between liquid chromatography–UV detection and liquid chromatography–mass spectrometry for the characterization of impurities and/or degradants present in trimethoprim tablets 970(2002)141

UV photolysis

Recent applications of sample preparation techniques in food analysis (Review) 975(2002)47

$U_{37}^{K'}$ index

Pressurized liquid extraction of selected molecular biomarkers in deep sea sediments used as proxies in paleoceanography 989(2003)197



Vacancy chromatography

Vacancy ion-exclusion chromatography of carboxylic acids on a weakly acidic cation-exchange resin 956(2002)209

Vacancy ion-exclusion chromatography of haloacetic acids on a weakly acidic cation-exchange resin 997(2003)133

Vacancy ion-exclusion chromatography of aromatic carboxylic acids on a weakly acidic cation-exchange resin 997(2003)139

Validation

Ion chromatographic determination of trace hydroxylamine in waste streams generated by a pharmaceutical reaction process 956(2002)261

Deferred standards, an on-line qualification, validation and system stability probe for chromatographic assay 958(2002)79

Simultaneous determination of ketoconazole and formaldehyde in a shampoo: liquid chromatography method development and validation 958(2002)191

Electromigration dispersion in capillary zone electrophoresis. Experimental validation of use of the Haarhoff-Van der Linde function 959(2002)229

Comparison of capillary electrophoresis and reversed-phase liquid chromatography for determination of the enantiomeric purity of an M3 antagonist 959(2002)299

Development of an analytical methodology for sarin (GB) and soman (GD) in various military-related wastes 962(2002)183

Headspace solid-phase microextraction analysis of aroma compounds in vinegar. Validation study 967(2002)261

Use of experimental design for the purge-and-trap-gas chromatography—mass spectrometry determination of methyl *tert.*-butyl ether, *tert.*-butyl alcohol and BTEX in groundwater at trace level 975(2002)113

Development and validation of a liquid chromatographic electrospray tandem mass spectrometric multiresidue method for anthelmintics in milk 976(2002)181

Validation of a liquid chromatography–tandem mass spectrometry method for the simultaneous quantification of 11 (fluoro)quinolone antibiotics in swine kidney 976(2002)195

Development and validation of a capillary zone electrophoresis method for the determination of benzalkonium chlorides in ophthalmic solutions 976(2002)207

Optimization and validation of a capillary zone electrophoretic method for the analysis of several angiotensin-II-receptor antagonists 979(2002)323

Optimization and validation of a micellar electrokinetic chromatographic method for the analysis of several angiotensin-II-receptor antagonists 984(2003)135

Determination of carnitine and acylcarnitines in urine by highperformance liquid chromatography-electrospray ionization ion trap tandem mass spectrometry 984(2003)203

Validation of high-performance liquid chromatography methods for pharmaceutical analysis. Understanding the differences and similarities between validation requirements of the US Food and Drug Administration, the US Pharmacopeia and the International Conference on Harmonization 987(2003)57

Determination of enrofloxacin and its metabolite ciprofloxacin in goat milk by high-performance liquid chromatography with diode-array detection. Optimization and validation 987(2003)221

Validation of a high-performance liquid chromatography method for the determination of oxytetracycline, tetracycline, chlortetracycline and doxycycline in bovine milk and muscle 987(2003)227

Determination of herbicides and a metabolite in human urine by liquid chromatography-electrospray ionization mass spectrometry 987(2003)375

Systematic development and validation of stability indicating micellar electrokinetic chromatography methods for early stage drug candidates 988(2003)297

Advances in methodology for the validation of methods according to the International Organization for Standardization. Application to the determination of benzoic and sorbic acids in soft drinks by high-performance liquid chromatography 992(2003)11

Intercalibration of chromatographic methods for auxino phytodrugs in *Solanaceae* 993(2003)111

Optimization, validation and comparison of various extraction techniques for the trace determination of polycyclic aromatic hydrocarbons in sewage sludges by liquid chromatography coupled to diode-array and fluorescence detection 995(2003)87

Modification and validation of the pyromellitic acid electrolyte for the capillary electrophoretic determination of anions 995(2003)217

Isomerization of aldehyde-2,4-dinitrophenylhydrazone derivatives and validation of high-performance liquid chromatographic analysis 996(2003)95

Development and validation of an improved method for the analysis of vancomycin by liquid chromatography. Selectivity of reversed-phase columns towards vancomycin components 996(2003)115

Development and validation of a capillary electrophoresis—indirect photometric detection method for the determination of the non-UV-absorbing 1,4-dideoxy-1,4-imino-p-arabinitol in active pharmaceutical ingredients, solutions and tablets using an internal standard 996(2003)213

Ion chromatography with inductively coupled plasma mass spectrometry, a powerful analytical tool for complex matrices. Estimation of Pt and Pd in environmental samples 997(2003)51

Rapid determination of polycyclic aromatic hydrocarbons in sewage sludges using microwave-assisted solvent extraction. Comparison with other extraction methods 999(2003)175

Van 't Hoff plots

Unusual effect of column temperature on chromatographic enantioseparation of dihydropyrimidinone acid and methyl ester on amylose chiral stationary phase 958(2002)69

Enantioseparation of various amino acid derivatives on a quinine based chiral anion-exchange selector at variable temperature conditions. Influence of structural parameters of the analytes on the apparent retention and enantioseparation characteristics 960(2002)97

Vapor-liquid equilibrium partitioning

Determination of the solubility of inorganic salts by headspace gas chromatography 996(2003)157

Vapour pressure

Gas chromatographic determination of vapour pressure and related thermodynamic properties of monoterpenes and biogenically related compounds 955(2002)105

Using temperature gradient gas chromatography to determine or predict vapor pressures and linear solvation energy relationship parameters of highly boiling organic compounds 988(2003)117

Var splendens

Development and optimization of a method for the analysis of low-molecular-mass organic acids in plants by capillary electrophoresis with indirect UV detection 989(2003)285

Varicol process

Multiobjective optimization of simulated moving bed and Varicol processes using a genetic algorithm 989(2003)95

Vegetable oils

see also Oils

At-line gas chromatographic—mass spectrometric analysis of fatty acid profiles of green microalgae using a direct thermal desorption interface 959(2002)191

Monitoring and characterization of ink vehicle autoxidation by inverse gas chromatography 969(2002)313

Characterization of triglycerides in vegetable oils by silver-ion packed-column supercritical fluid chromatography coupled to mass spectroscopy with atmospheric pressure chemical ionization and coordination ion spray 974(2002)231

Comparative analysis of different plant oils by high-performance liquid chromatography-atmospheric pressure chemical ionization mass spectrometry 976(2002)255

Use of synthetic adsorbents in preparative normal-phase liquid chromatography 989(2003)19

Vegetables

Application of gas chromatography-tandem mass spectrometry to the analysis of pesticides in fruits and vegetables 959(2002)203

Rapid trace analysis of alachlor in water and vegetable samples 963(2002)125

Determination of *Penicillium* mycotoxins in foods and feeds using liquid chromatography—mass spectrometry 964(2002)189

Comprehensive two-dimensional gas chromatography with timeof-flight mass spectrometric detection applied to the determination of pesticides in food extracts 965(2002)207 Matrix-effects of vegetable commodities in electron-capture detection applied to pesticide multiresidue analysis 966(2002)155

Application of matrix solid-phase dispersion to the determination of a new generation of fungicides in fruits and vegetables 968(2002)201

Determination of propamocarb in vegetables using polymerbased high-performance liquid chromatography coupled with electrospray mass spectrometry 972(2002)231

Determination of dichlorvos by on-line microwave-assisted extraction coupled to headspace solid-phase microextraction and gas chromatography-electron-capture detection 976(2002)349

Multi-residue method for rapid screening and confirmation of pesticides in crude extracts of fruits and vegetables using isocratic liquid chromatography with electrospray tandem mass spectrometry 982(2002)225

Characterisation of legumes by enzymatic hydrolysis, microdialysis sampling, and micro-high-performance anion-exchange chromatography with electrospray ionisation mass spectrometry 992(2003)67

Intercalibration of chromatographic methods for auxino phytodrugs in *Solanaceae* 993(2003)111

Separation and purification of glucosinolates from crude plant homogenates by high-speed counter-current chromatography 996(2003)85

Multi-residue screening of pesticides in vegetables, fruits and baby food by stir bar sorptive extraction-thermal desorptioncapillary gas chromatography-mass spectrometry (Review) 1000(2003)299

Vesicles

Rapid estimation of octanol-water partition coefficients using synthesized vesicles in electrokinetic chromatography 962(2002)207

Vinegar

Optimisation of headspace solid-phase microextraction for analysis of aromatic compounds in vinegar 953(2002)7

Headspace solid-phase microextraction analysis of aroma compounds in vinegar. Validation study 967(2002)261

Vinyl alcohol distribution

Determining the vinyl alcohol distribution in poly(vinyl butyral) using normal-phase gradient polymer elution chromatography 971(2002)151

Virtual carbon number

Retention index calculation without *n*-alkanes—the virtual carbon number 993(2003)187

Viruses

Mapping of protein:protein contact surfaces by hydrogen/deuterium exchange, followed by on-line high-performance liquid chromatography-electrospray ionization fourier-transform ion-cyclotron-resonance mass analysis 982(2002)85

Identification of protein A media performance attributes that can be monitored as surrogates for retrovirus clearance during extended re-use 989(2003)155

Vitis vinifera

Preparative isolation of polyphenolic compounds from *Vitis vinifera* by centrifugal partition chromatography 964(2002)123

Void time

On void time determination in thermal field-flow fractionation 960(2002)165

Volume contraction

Quantitative accuracy in the gas chromatographic analysis of solvent mixtures 985(2003)21



Wall-coated open-tubular columns

Wall-coated open-tubular column chromatography on an organo-clay stationary phase 973(2002)143

Warfare agents

Selective stationary phase for solid-phase microextraction analysis of sarin (GB) 954(2002)217

Development of an analytical methodology for sarin (GB) and soman (GD) in various military-related wastes 962(2002)183

Application of headspace solid-phase microextraction and gas chromatography-mass spectrometry for detection of the chemical warfare agent bis(2-chloroethyl) sulfide in soil 971(2002)185

Analytical separation techniques for the determination of chemical warfare agents (Review) 982(2002)177

Detection of VX contamination in soil through solid-phase microextraction sampling and gas chromatography/mass spectrometry of the VX degradation product bis(diisopropylaminoethyl)disulfide 992(2003)1

Derivatisation reactions in the chromatographic analysis of chemical warfare agents and their degradation products 1000(2003)253

Water analysis

Analysis of antifouling biocides Irgarol 1051 and Sea Nine 211 in environmental water samples using solid-phase microextraction and gas chromatography 952(2002)215

Evaluation of liquid chromatography-negative ion electrospray mass spectrometry for the determination of selected resin acids in river water 952(2002)289

Solid-phase microextraction coupled to high-performance liquid chromatography to determine phenolic compounds in water samples 953(2002)79

Determination of benzylsuccinic acid in gasoline-contaminated groundwater by solid-phase extraction coupled with gas chromatography-mass spectrometry 953(2002)215

Fast ion chromatography of common inorganic anions on a short ODS column permanently coated with didodecyldimethylammonium bromide 953(2002)299

Rapid ion chromatography of L-ascorbic acid, nitrite, sulfite, oxalate, iodide and thiosulfate by isocratic elution utilizing a postcolumn reaction with cerium(IV) and fluorescence detection 956(2002)77

Determination of trace level bromate and perchlorate in drinking water by ion chromatography with an evaporative preconcentration technique 956(2002)85

US Environmental Protection Agency Method 326.0, a new method for monitoring inorganic oxyhalides and optimization of the postcolumn derivatization for the selective determination of trace levels of bromate 956(2002)93

Rapid and direct determination of iodide in seawater by electrostatic ion chromatography 956(2002)103

Determination of anions at trace levels in power plant water samples by ion chromatography with electrolytic eluent generation and suppression 956(2002)129

Determination of inorganic cations and ammonium in environmental waters by ion chromatography with a high-capacity cation-exchange column 956(2002)181

Anion-exchange chromatography of metal cyanide complexes with gradient separation and direct UV detection 956(2002)229

Applications of ion chromatography with electrospray mass spectrometric detection to the determination of environmental contaminants in water 956(2002)245

Determination of hexavalent chromium at the level of the California Public Health Goal by ion chromatography 956(2002)255

Ion chromatographic determination of trace hydroxylamine in waste streams generated by a pharmaceutical reaction process 956(2002)261

Accurate mass analysis of ethanesulfonic acid degradates of acetochlor and alachlor using high-performance liquid chromatography and time-of-flight mass spectrometry 957(2002)3

Analysing fluorobenzoate tracers in groundwater samples using liquid chromatography-tandem mass spectrometry. A tool for leaching studies and hydrology 957(2002)11

Environmental water monitoring by capillary electrophoresis and result comparison with solvent chemistry techniques 957(2002)17

Analysis of polar pesticides in rainwater in Denmark by liquid chromatography-tandem mass spectrometry 957(2002)27

Liquid chromatography-mass spectrometry method to determine alcohol ethoxylates and alkylamine ethoxylates in soil interstitial water, ground water and surface water samples 957(2002)45

Determination of polycyclic aromatic hydrocarbons and polycylic aromatic sulfur heterocycles by high-performance liquid chromatography with fluorescence and atmospheric pressure chemical ionization mass spectrometry detection in seawater and sediment samples 958(2002)141

Analysis of cyanobacterial hepatotoxins in water samples by microbore reversed-phase liquid chromatography-electrospray ionisation mass spectrometry 959(2002)103

Liquid chromatographic method development for determination of fungicide epoxiconazole enantiomers by achiral and chiral column switching technique in water and soil 959(2002)143

Multicomponent analysis of volatile organic compounds in water by automated purge and trap coupled to gas chromatography–mass spectrometry 959(2002)181

Trace determination of priority pesticides in water by means of high-speed on-line solid-phase extraction—liquid chromatography—tandem mass spectrometry using turbulent-flow chromatography columns for enrichment and a short monolithic column for fast liquid chromatographic separation 960(2002)109

Optimisation of solid-phase microextraction of volatiles 960(2002)159

Analysis of the herbicides paraquat, diquat and difenzoquat in drinking water by micellar electrokinetic chromatography using sweeping and cation selective exhaustive injection 961(2002)65

Liquid chromatographic-tandem mass spectrometric determination of nonylphenol polyethoxylates and nonylphenol carboxylic acids in surface water 961(2002)245

Comparison of three different poly(dimethylsiloxane) divinylbenzene fibres for the analysis of pesticide multiresidues in water samples: structure and efficiency 963(2002)19

Comparison of different coatings in solid-phase microextraction for the determination of organochlorine pesticides in ground water 963(2002)95

Application of solid-phase microextraction in the monitoring of priority pesticides in the Kalamas River (N.W. Greece) 963(2002)107

Comparison of solid-phase extraction and solid-phase microextraction for carbofuran in water analyzed by high-performance liquid chromatography-photodiode-array detection 963(2002)117

Rapid trace analysis of alachlor in water and vegetable samples 963(2002)125

Optimization of a derivatization-solid-phase microextraction method for the analysis of thirty phenolic pollutants in water samples 963(2002)137

Universal screening method for the determination of US Environmental Protection Agency phenols at the lower ng 1^{-1} level in water samples by on-line solid-phase extraction—high-performance liquid chromatography—atmospheric pressure chemical ionization mass spectrometry within a single run 963(2002)149

Development of a solid-phase microextraction method for the determination of short-ethoxy-chain nonylphenols and their brominated analogs in raw and treated water 963(2002)159

Non-covalent and semi-covalent molecularly imprinted polymers for selective on-line solid-phase extraction of 4-nitrophenol from water samples 963(2002)169

Application of solid-phase microextraction combined with gas chromatography-mass spectrometry to the determination of butylated hydroxytoluene in bottled drinking water 963(2002)179

Solid-phase extraction for the simultaneous preconcentration of organic (selenocystine) and inorganic [Se(IV), Se(VI)] selenium in natural waters 963(2002)185

Rapid determination of butyltin species in water samples by multicapillary gas chromatography with atomic emission detection following headspace solid-phase microextraction 963(2002)195

Application of stir bar sorptive extraction to the determination of polycyclic aromatic hydrocarbons in aqueous samples 963(2002)225

Liquid-liquid-liquid microextraction of aromatic amines from water samples combined with high-performance liquid chromatography 963(2002)231

Analysis of aromatic amines in water samples by liquid—liquid—liquid microextraction with hollow fibers and high-performance liquid chromatography 963(2002)239

Determination of volatile alkyl sulfides in wastewater by headspace solid-phase microextraction followed by gas chromatography-mass spectrometry 963(2002)249

Optimization of headspace solid-phase microextraction by means of an experimental design for the determination of methyl *tert.*-butyl ether in water by gas chromatography–flame ionization detection 963(2002)259

Determination of toxic compounds in paper-recycling process waters by gas chromatography-mass spectrometry and liquid chromatography-mass spectrometry 963(2002)265

Optimisation of a solid-phase microextraction method for synthetic musk compounds in water 963(2002)277

Application of on-line solid-phase extraction—gas chromatography—mass spectrometry to the determination of endocrine disruptors in water samples 963(2002)287

Determination of organochlorine pesticides in ground water using solid-phase microextraction followed by dual-column gas chromatography with electron-capture detection 964(2002)21

Method based on solid-phase microextraction—high-performance liquid chromatography with UV and electrochemical detection to determine estrogenic compounds in water samples 964(2002)153

Chromatographic characterisation of an estrogen-binding affinity column containing tetrapeptides selected by a combinatorial-binding approach 966(2002)71

Determination of nitrate in seawater by capillary zone electrophoresis with chloride-induced sample self-stacking 966(2002)205

On-column complexation of metal ions using 2,6-pyridinedicarboxylic acid and separation of their anionic complexes by capillary electrophoresis with direct UV detection 966(2002)245

Identification and quantification of polar naphthalene derivatives in contaminated groundwater of a former gas plant site by liquid chromatography-electrospray ionization tandem mass spectrometry 967(2002)201

Gas chromatographic determination of 2-hydroxy-4-methoxybenzophenone and octyldimethyl-*p*-aminobenzoic acid sunscreen agents in swimming pool and bathing waters by solid-phase microextraction 967(2002)243

Selective enrichment of sulfides, thiols and methylthiophosphates from water samples on metal-loaded cation-exchange materials for gas chromatographic analysis 968(2002)171

Multiresidue method for the simultaneous determination of four groups of pesticides in ground and drinking waters, using solid-phase microextraction—gas chromatography with electron-capture and thermionic specific detection 968(2002)177

Determination of organochlorine pesticides in seawater using liquid-phase hollow fibre membrane microextraction and gas chromatography-mass spectrometry 968(2002)191

Application of a pulse-discharge helium detector to the determination of neon in air and water 968(2002)263

Trace-level determination of pesticides in water by means of liquid and gas chromatography (Review) 970(2002)65

Surface and wastewater quality monitoring: combination of liquid chromatography with (geno)toxicity detection, diode array detection and tandem mass spectrometry for identification of pollutants 970(2002)167

Determination of diuron and the antifouling paint biocide Irgarol 1051 in Dutch marinas and coastal waters 970(2002)183

Analysis of commercial vegetable tanning agents by reversedphase liquid chromatography–electrospray ionization–tandem mass spectrometry and its application to wastewater 970(2002)191

Characterization and source identification of hydrocarbons in water samples using multiple analytical techniques 971(2002)173

Determination of phenols in landfill leachate-contaminated groundwaters by solid-phase extraction 972(2002)175

Determination of atrazine and four organophosphorus pesticides in ground water using solid phase microextraction (SPME) followed by gas chromatography with selected-ion monitoring 972(2002)183

Concentration of chlorophenols in water with sodium dodecylsulfate— γ -alumina admicelles for high-performance liquid chromatographic analysis 972(2002)205

Gas chromatographic-mass spectrometric method for quantification of 3-chloro-4-(dichloromethyl)-5-hydroxy-2[5H]-furanone in chlorinated water samples 972(2002)259

Effect of solvents on the selectivity of terbutylazine imprinted polymer sorbents used in solid-phase extraction 973(2002)1

Zwitterionic ion chromatography using a dynamically coated column and mobile phase recycling 973(2002)103

Gas and liquid chromatography of metal chelates of pentamethylene dithiocarbamate 973(2002)235

Recent advances in the mass spectrometric analysis related to endocrine disrupting compounds in aquatic environmental samples (Review) 974(2002)23

Mass spectrometric strategies for the analysis of polar industrial chemicals and their by-products in wastewater and surface water 974(2002)111

Capillary electrophoresis-mass spectrometry for the analysis of quaternary ammonium herbicides 974(2002)243

Role of the retaining precolumn in large-volume on-column injections of volatiles to gas chromatography 975(2002)95

Polymer-coated synthetic fibers designed for miniaturized sample preparation process 975(2002)105

How to estimate moments and quantiles of environmental data sets with non-detected observations? A case study on volatile organic compounds in marine water samples 975(2002)123

Optimization of solid-phase extraction and solid-phase microextraction for the determination of α - and β -endosulfan in water by gas chromatography–electron-capture detection 976(2002)293

Determination of nineteen 4-alkylphenol endocrine disrupters in Geneva municipal sewage wastewater 976(2002)335

Analysis of polar pesticides in water and wine samples by automated in-tube solid-phase microextraction coupled with high-performance liquid chromatography-mass spectrometry 976(2002)357

Application of static and dynamic liquid-phase microextraction in the determination of polycyclic aromatic hydrocarbons 976(2002)377

Analytical characteristics of the determination of benzene, toluene, ethylbenzene and xylenes in water by headspace solvent microextraction 977(2002)143

Preconcentration and dansylation of aliphatic amines using $\rm C_{18}$ solid-phase packings. Application to the screening analysis in environmental water samples 978(2002)59

MultiSimplex optimisation of the solid-phase microextraction—gas chromatographic—mass spectrometric determination of polycyclic aromatic hydrocarbons, polychlorinated biphenyls and phthalates from water samples 978(2002)165

Determination of five nitroimidazoles in water by liquid chromatography-mass spectrometry 978(2002)243

Determination of pesticides in waters by capillary gas chromatography with atomic emission detection 978(2002)249

Determination of rotenone in river water utilizing packed capillary column switching liquid chromatography with UV and time-of-flight mass spectrometric detection 983(2003)43

Methods for selective determination of persistent organochlorine pesticide residues in water and sediments by capillary gas chromatography and electron-capture detection 983(2003)225

Solid-phase microextraction for the analysis of short-chain chlorinated paraffins in water samples 984(2003)1

Determination of estrogens and their conjugates in water using solid-phase extraction followed by liquid chromatography-tandem mass spectrometry 984(2003)195

Determination of 4-alkylphenols by novel derivatization and gas chromatography-mass spectrometry 984(2003)237

Application of single-drop microextraction and comparison with solid-phase microextraction and solid-phase extraction for the determination of α - and β -endosulfan in water samples by gas chromatography-electron-capture detection 984(2003)245

Capillary electrophoretic determination of inorganic selenium species 984(2003)291

In-tube solid-phase microextraction sampler for long-term storage 985(2003)93

Semi-automated hollow-fibre membrane extraction, a novel enrichment technique for the determination of biologically active compounds in water samples 985(2003)99

Determination of acidic drugs in sewage water by gas chromatography—mass spectrometry as *tert.*-butyldimethylsilyl derivatives 985(2003)265

Conductive polymers as new media for solid-phase extraction: Isolation of chlorophenols from water sample 986(2003)111

On-column concentration of bisphenol A with one-step removal of humic acids in water 987(2003)389

Trace analysis of technical nonylphenol, bisphenol A and 17α -ethinylestradiol in wastewater using solid-phase microextraction and gas chromatography—mass spectrometry 988(2003)41

Competitive extraction of multi-component contaminants in water by Carboxen-polydimethylsiloxane fiber during solid-phase microextraction 988(2003)177

Microscale solid-phase extraction system for explosives 991(2003)159

Comparison of gas chromatography-mass spectrometry and liquid chromatography-mass spectrometry for the determination of fatty and resin acids in paper mill process waters 991(2003)205

Simultaneous determination of neutral and acidic pharmaceuticals in wastewater by high-performance liquid chromatography-post-column photochemically induced fluorimetry 993(2003)29

Separation of haloacetic acids in water by capillary zone electrophoresis with direct UV detection and contactless conductivity detection 993(2003)143

Liquid chromatography-electrospray ionisation-mass spectrometry based method for the simultaneous determination of algal and cyanobacterial toxins in phytoplankton from marine waters and lakes followed by tentative structural elucidation of microcystins 994(2003)45

Trace analysis of sulfonylurea herbicides in water by on-line continuous flow liquid membrane extraction– C_{18} precolumn liquid chromatography with ultraviolet absorbance detection 995(2003)21

Determination of sodium at low ng/l concentrations in simulated power plant waters by ion chromatography 995(2003)143

Simultaneous separation of inorganic anions and cations by using anion-exchange and cation-exchange columns connected in tandem in ion chromatography 995(2003)153

Simultaneous determination of methyl *tert.*-butyl ether and its degradation products, other gasoline oxygenates and benzene, toluene, ethylbenzene and xylenes in Catalonian groundwater by purge-and-trap-gas chromatography-mass spectrometry 995(2003)171

On-line solid-phase extraction with molecularly imprinted polymers to selectively extract substituted 4-chlorophenols and 4-nitrophenol from water 995(2003)233

Determination of aromatic amine mutagens, PBTA-1 and PBTA-2, in river water by solid-phase extraction followed by liquid chromatography-tandem mass spectrometry 995(2003)239

Considerations on ultra trace analysis of carbamates in water samples 996(2003)133

Analysis of naphthalenesulfonate compounds by cyclodextrinmediated capillary electrophoresis with sample stacking 996(2003)205

Application of a single electrode, modified with polydiphenylamine and dodecyl sulfate, for the simultaneous amperometric determination of electro-inactive anions and cations in ion chromatography 997(2003)65

Selective determination of ammonium ions by high-speed ionexclusion chromatography on a weakly basic anion-exchange resin column 997(2003)191

High-speed simultaneous ion-exclusion/cation-exchange chromatography of anions and cations on a weakly acidic cation-exchange resin column 997(2003)219

Determination of trace levels of haloacetic acids and perchlorate in drinking water by ion chromatography with direct injection 997(2003)225

Determination of endocrine-disrupting compounds in water samples by on-line solid-phase extraction-programmed-temperature vaporisation-gas chromatography-mass spectrometry 998(2003)41

Optimization of the class-selective extraction of triazines from aqueous samples using a molecularly imprinted polymer by a comprehensive approach of the retention mechanism 999(2003)23

Determination of linear alkylbenzensulfonates in aqueous matrices by ion-pair solid-phase microextraction-in-port derivatization-gas chromatography-mass spectrometry 999(2003)51

Determination of methyl *tert.*-butyl ether and *tert.*-butyl alcohol in seawater samples using purge-and-trap enrichment coupled to gas chromatography with atomic emission and mass spectrometric detection 999(2003)81

Analysis of 35 priority semivolatile compounds in water by stir bar sorptive extraction-thermal desorption-gas chromatography-mass spectrometry. I. Method optimisation 999(2003)91

Solid-phase microextraction for herbicide determination in environmental samples (Review) 999(2003)103

Simultaneous determination of "earthy-musty" odorous haloanisoles and their corresponding halophenols in water samples using solid-phase microextraction coupled to gas chromatography with electron-capture detection 999(2003)135

Hollow-fibre liquid-phase microextraction of phthalate esters from water 999(2003)145

State-of-the-art of gas chromatography-based methods for analysis of anthropogenic volatile organic compounds in estuarine waters, illustrated with the river Scheldt as an example (Review) 1000(2003)283

Liquid chromatography-mass spectrometry and strategies for trace-level analysis of polar organic pollutants (Review) 1000(2003)477

Analytical method for the determination of the aminoglycoside gentamicin in hospital wastewater via LC-electrospray-tandem MS (Review) 1000(2003)583

Wattle

Analysis of commercial vegetable tanning agents by reversedphase liquid chromatography-electrospray ionization-tandem mass spectrometry and its application to wastewater 970(2002)191

Waxes

Systematic characterisation of long-chain aliphatic esters of wool wax by gas chromatography-electron impact ionisation mass spectrometry 952(2002)193

Extraction of thymol, eucalyptol, menthol, and camphor residues from honey and beeswax. Determination by gas chromatography with flame ionization detection 954(2002)207

Mass spectrometric methods prove the use of beeswax and ruminant fat in late Roman cooking pots 968(2002)151

Simultaneous determination of long-chain aliphatic aldehydes and waxes in olive oils 983(2003)283

Wet effluent diffusion denuder technique

Wet effluent diffusion denuder technique and the determination of volatile organic compounds in air. II. Monoterpenes 973(2002)211

Wine

Headspace solid-phase microextraction analysis of 3-alkyl-2-methoxypyrazines in wines 953(2002)1

Evaluation of an extraction method in the determination of the 2,4,6-trichloroanisole content of tainted cork 953(2002)207

Determination of esters in dry and sweet white wines by headspace solid-phase microextraction and gas chromatography 963(2002)213

Improved performance of gravitational field-flow fractionation for screening wine-making yeast varieties 966(2002)135

Determination of minor and trace volatile compounds in wine by solid-phase extraction and gas chromatography with mass spectrometric detection 966(2002)167

Solid-phase microextraction and gas chromatography-mass spectrometry for the rapid screening of triazole residues in wine and strawberries 967(2002)255

Optimizing separation conditions for riboflavin, flavin mononucleotide and flavin adenine dinucleotide in capillary zone electrophoresis with laser-induced fluorescence detection 968(2002)229

Analysis of wine phenolics by high-performance liquid chromatography using a monolithic type column 973(2002)221

Determination of 4-ethylguaiacol and 4-ethylphenol in red wines using headspace-solid-phase microextraction-gas chromatography 975(2002)349

Analysis of polar pesticides in water and wine samples by automated in-tube solid-phase microextraction coupled with high-performance liquid chromatography-mass spectrometry 976(2002)357

Determination of ethanol in alcoholic beverages by highperformance liquid chromatography—flame ionization detection using pure water as mobile phase 976(2002)387

Determination of 2,4,6-trichloroanisole in wines by headspace solid-phase microextraction and gas chromatography-electron-capture detection 977(2002)1

Flavour analysis of Greek white wine by solid-phase microextraction-capillary gas chromatography-mass spectrometry 985(2003)233

New aspects of the simultaneous analysis of amino acids and amines as their *o*-phthaldialdehyde derivatives by high-performance liquid chromatography. Analysis of wine, beer and vinegar 987(2003)311

Development and validation of a capillary zone electrophoresis method for the quantitative determination of anthocyanins in wine 990(2003)247

Determination of major compounds in sweet wines by headspace solid-phase microextraction and gas chromatography 991(2003)13

Optimisation of headspace solid-phase microextraction for the analysis of volatile phenols in wine 995(2003)11

Coupling solid-phase microextraction and high-performance liquid chromatography for direct and sensitive determination of halogenated fungicides in wine 995(2003)135

Different multidimensional chromatographic approaches applied to the study of wine malolactic fermentation 995(2003)161

Determination of biogenic amines as dansyl derivatives in alcoholic beverages by high-performance liquid chromatography with fluorimetric detection and characterization of the dansylated amines by liquid chromatography—atmospheric pressure chemical ionization mass spectrometry 996(2003)103

Ion-pair high-performance liquid chromatographic determination of biogenic amines and polyamines in wine and other alcoholic beverages 998(2003)235

Wood preservative

Analyses of the wood preservative component *N*-cyclohexyl-diazeniumdioxide in impregnated pine sapwood by direct thermal desorption–gas chromatography–mass spectrometry 953(2002)199

Worms

Comparison of various extraction techniques for the determination of polycyclic aromatic hydrocarbons in worms 975(2002)165



Xenopus laevis

Automated nanoflow liquid chromatography-tandem mass spectrometry for a differential display proteomic study on Xenopus laevis neuroendocrine cells 976(2002)113

Xerocomus parasiticus

Simple method for reversed-phase high-performance liquid chromatographic analysis of fungal pigments in fruit-bodies of Boletales (Fungi) 964(2002)129

X-Ray photoelectron spectroscopy

Characterisation of cement pastes by inverse gas chromatography 969(2002)261

Adsorption of poly(methyl methacrylate) and poly(vinyl chloride) blends onto polypyrrole. Study by X-ray photoelectron spectroscopy, time-of-flight static secondary ion mass spectroscopy, and inverse gas chromatography 969(2002)273



Yeast

Development of new analytical methods for selenium speciation in selenium-enriched yeast material 976(2002)409

Interaction of immunoglobulin G with N,N,N',N'-

Control of electroosmotic flow in zirconia-coated capillaries

ethylenediaminetetramethylenephosphonic acid-modified zirconia 989(2003)131

Analysis and critical comparison of the reversed-phase and ionexchange contributions to retention on polybutadiene coated zirconia and octadecyl silane bonded silica phases 996(2003)13

Zirconia, carbon clad

971(2002)199

Two dimensional reversed-phase-reversed-phase separations. Isomeric separations incorporating C₁₈ and carbon clad zirconia stationary phases 975(2002)285

Zirconia, carbon-coated

Study of polar and nonpolar substituted benzenes and aromatic isomers on carbon-coated zirconia and alkyl bonded phases 958(2002)121

Zirconia-polybutadiene stationary phases

Elevated-temperature ultrahigh-pressure liquid chromatography using very small polybutadiene-coated nonporous zirconia particles 983(2003)83

Zirconium oxide supports

Evaluation of the stability and selectivity for various adjustable stationary phases using zirconium oxide supports in highperformance liquid chromatography 953(2002)67

Zwitterion chromatography

Determination of total acidity and of divalent cations by ion chromatography with n-hexadecylphosphocholine as the stationary phase 956(2002)139

Zwitterionic ion chromatography using a dynamically coated column and mobile phase recycling 973(2002)103

Mechanistic studies on the separation of cations in zwitterionic ion chromatography 997(2003)13

Mixed-mode reversed-phase and ion-exchange separations of cationic analytes on polybutadiene-coated zirconia 968(2002)17