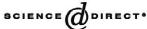


# Available online at www.sciencedirect.com



# JOURNAL OF CHROMATOGRAPHY A

Journal of Chromatography A, 987 (2003) 497-508

www.elsevier.com/locate/chroma

# Subject Index Vol. 987

#### Acenaphthene

High-performance liquid chromatographic stationary phases based on poly(methyloctylsiloxane) immobilized on silica. III. Stability evaluations 987(2003)93

### Acetaldehyde

Analysis of DNA adducts of acetaldehyde by liquid chromatography—mass spectrometry 987(2003)341

#### Activation energy

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

### **Activation volume**

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

### Acylarylalkylamines

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

### Albumin

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

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

### Aldehydes

Analysis of DNA adducts of acetaldehyde by liquid chromatography-mass spectrometry 987(2003)341

### Alkaloids

Preparation of a molecularly imprinted polymer for the solidphase extraction of scopolamine with hyoscyamine as a dummy template molecule 987(2003)103

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

### Alkylamines

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

#### **Amantadine**

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

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

#### Amines

Titanium(IV) tungstosilicate and titanium(IV) tungstophosphate: two new inorganic ion exchangers 987(2003)147

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

Separation of proteins on polymeric stationary phases grafted with various amine groups 987(2003)323

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

#### Amino acids

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

Characterization of a novel diol column for high-performance liquid chromatography 987(2003)119

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

0021-9673/03/\$ - see front matter © 2003 Elsevier Science B.V. All right reserved

PII: S0021-9673(03)00075-X

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

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)-γ-cyclodextrin 987(2003)459

### Ammonium hydrogencarbonate

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

### Amoxycillin

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

#### Amperometric detection

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

#### Aniline

Binding of environmental pollutants to the corn protein zein studied by high-performance liquid chromatography 987(2003)403

### Anilinonaphthalenesulfonic acid

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

### Anion-exchanges

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

### Antibiotics

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

#### Azo dve

Process monitoring of anaerobic azo dye degradation by highperformance liquid chromatography—diode array detection continuously coupled to membrane filtration sampling modules 987(2003)395

#### Azoles

Use of high-performance liquid chromatographic and microbiological analyses for evaluating the presence or absence of active metabolites of the antifungal posaconazole in human plasma 987(2003)243

### **Background electrolyte composition**

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)-γ-cyclodextrin 987(2003)459

#### **BAPTA**

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

#### Basic drugs

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

### Beer

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

# Belladonna alkaloids

Preparation of a molecularly imprinted polymer for the solidphase extraction of scopolamine with hyoscyamine as a dummy template molecule 987(2003)103

# Benzophenones

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

# Binding studies

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

### Bis(aminophenyloxyethane)tetra acetic acid

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

### Bisphenol A

On-column concentration of bisphenol A with one-step removal of humic acids in water 987(2003)389

### **Buffer composition**

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

### Butylphenol

On-column concentration of bisphenol A with one-step removal of humic acids in water 987(2003)389

### Carbohydrates

Non-aqueous capillary electrophoresis of the positional isomers of a sulfated monosaccharide 987(2003)467

#### Carotenes

Measurements of the major isoforms of vitamins A and E and carotenoids in the blood of people with spinal-cord injuries 987(2003)359

#### Carotenoids

Measurements of the major isoforms of vitamins A and E and carotenoids in the blood of people with spinal-cord injuries 987(2003)359

### Catecholamines

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

# Chelation

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

#### Chip technology

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

# Chiral recognition

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

# Chiral selectors

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, LC

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  $\pi$ -acidic chiral stationary phases 987(2003)429

### 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

#### Cinchona alkaloids

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

### Ciprofloxacin

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

#### Circular dichroism

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

# Column-switching

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

### Complexation

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

#### Cosmetics

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

### CoulArray detection

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

#### Creatine

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

#### Creatinine

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

### γ-Cyclodextrin

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

#### Cyclodextrins

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

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

### Derivatization, LC

(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 (Review) 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

## **Detection**, LC

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

### Diabetic nephropathy

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

#### Dimethylaniline

High-performance liquid chromatographic stationary phases based on poly(methyloctylsiloxane) immobilized on silica. III. Stability evaluations 987(2003)93

#### DNA

Analysis of DNA adducts of acetaldehyde by liquid chromatography-mass spectrometry 987(2003)341

#### DP-b99

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

### **DP-109**

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

### Electrochromatography

Separation of peptides by pressurized capillary electrochromatography 987(2003)453

#### Electrospray mass spectrometry

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

### **Enantiomer separation**

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  $\pi$ -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)-y-cyclodextrin 987(2003)459

#### **Endocrine disruptors**

On-column concentration of bisphenol A with one-step removal of humic acids in water 987(2003)389

### Enrofloxacin

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

#### **Enzyme inhibitors**

Determination of PNU-248686A, a novel matrix metalloproteinase inhibitor, in human plasma by liquid chromatography-tandem mass spectrometry, following protein precipitation in the 96-well plate format 987(2003)249

### **Enzymes**

Development and characterization of an immobilized enzyme reactor based on glyceraldehyde-3-phosphate dehydrogenase for on-line enzymatic studies 987(2003)331

## Ethylbenzene

High-performance liquid chromatographic stationary phases based on poly(methyloctylsiloxane) immobilized on silica. III. Stability evaluations 987(2003)93

#### Ethylguanine

Analysis of DNA adducts of acetaldehyde by liquid chromatography-mass spectrometry 987(2003)341

### Fatty acids

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

#### Flow velocities

Experimental Van Deemter plots of shear-driven liquid chromatographic separations in disposable microchannels 987(2003)39

### Fluoroquinolones

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

#### Food analysis

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

#### Fucoidar

Non-aqueous capillary electrophoresis of the positional isomers of a sulfated monosaccharide 987(2003)467

#### Glucos

Characterization of a novel diol column for high-performance liquid chromatography 987(2003)119

#### Glutamic acid

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

#### Glyceraldehyde-3-phosphate dehydrogenase

Development and characterization of an immobilized enzyme reactor based on glyceraldehyde-3-phosphate dehydrogenase for on-line enzymatic studies 987(2003)331

#### Glycidyl methacrylate

Separation of proteins on polymeric stationary phases grafted with various amine groups 987(2003)323

#### **Gradient elution**

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

#### Grafting

Separation of proteins on polymeric stationary phases grafted with various amine groups 987(2003)323

#### Guanine

Analysis of DNA adducts of acetaldehyde by liquid chromatography-mass spectrometry 987(2003)341

#### Humic acids

On-column concentration of bisphenol A with one-step removal of humic acids in water 987(2003)389

# Hydrophilic interaction chromatography

Characterization of a novel diol column for high-performance liquid chromatography 987(2003)119

### Hyoscyamine

Preparation of a molecularly imprinted polymer for the solidphase extraction of scopolamine with hyoscyamine as a dummy template molecule 987(2003)103

# Hypericin

Use of an on-line, precolumn photochemical reactor in highperformance liquid chromatography of naphthodianthrones in *Hypericum perforatum* preparations 987(2003)181

### Hypericum perforatum

Use of an on-line, precolumn photochemical reactor in highperformance liquid chromatography of naphthodianthrones in *Hypericum perforatum* preparations 987(2003)181

#### Immobilization

High-performance liquid chromatographic stationary phases based on poly(methyloctylsiloxane) immobilized on silica. III. Stability evaluations 987(2003)93

### 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 proteins**

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

#### **Inorganic anions**

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

### **Inorganic cations**

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

#### Instrumentation

Experimental Van Deemter plots of shear-driven liquid chromatographic separations in disposable microchannels 987(2003)39

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

### **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

### Ion exchangers

Titanium(IV) tungstosilicate and titanium(IV) tungstophosphate: two new inorganic ion exchangers 987(2003)147

### 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

#### Ketohexoses

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

#### Kinetic studies

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

#### Lactams

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

### Linear solvent strength theory

Predictive approaches to gradient retention based on analyte structural descriptors from calculation chemistry 987(2003)29

### Lipophilicity

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

### Liquid chromatography

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

#### Mangiferin

Pharmacokinetic study of free mangiferin in rats by microdialysis coupled with microbore high-performance liquid chromatography and tandem mass spectrometry 987(2003)367

### 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

### Matrix metalloproteinase inhibitors

Determination of PNU-248686A, a novel matrix metalloproteinase inhibitor, in human plasma by liquid chromatography-tandem mass spectrometry, following protein precipitation in the 96-well plate format 987(2003)249

#### Memantine

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

#### Membranes

Process monitoring of anaerobic azo dye degradation by highperformance liquid chromatography—diode array detection continuously coupled to membrane filtration sampling modules 987(2003)395

### Metal cations

Titanium(IV) tungstosilicate and titanium(IV) tungstophosphate: two new inorganic ion exchangers 987(2003)147

#### Metronidazole

Pharmacokinetics of metronidazole in rat blood, brain and bile studied by microdialysis coupled to microbore liquid chromatography 987(2003)277

#### Microdialysis

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

#### 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

#### Milk

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

#### Mobile phase composition

Mass spectrometry-compatible ICH (International Conference on Harmonization) impurity analysis with a high-pH mobile phase. Advantages and pitfalls 987(2003)283

#### 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 descriptors

Predictive approaches to gradient retention based on analyte structural descriptors from calculation chemistry 987(2003)29

### Molecular imprinting

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

### Molecular modeling

Predictive approaches to gradient retention based on analyte structural descriptors from calculation chemistry 987(2003)29

### Monolithic columns

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

### Naphthalene

High-performance liquid chromatographic stationary phases based on poly(methyloctylsiloxane) immobilized on silica. III. Stability evaluations 987(2003)93

#### **Naphthodianthrones**

Use of an on-line, precolumn photochemical reactor in highperformance liquid chromatography of naphthodianthrones in *Hypericum perforatum* preparations 987(2003)181

#### Naphthoxyacetyl chloride

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

#### Naphthylene methylethyl propanamide

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

### Non-aqueous capillary electrophoresis

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

### Nuclear magnetic resonance spectroscopy

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

### Organic peroxides

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

#### Peak shape

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

### **Peptides**

Separation of peptides by pressurized capillary electrochromatography 987(2003)453

# Peroxides

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

# Peroxyoxalate chemiluminescence detection

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

#### Pesticides

Evaluation of the applicability and the stability of a  $\rm C_{18}$  stationary phase containing embedded urea groups 987(2003)139

Determination of herbicides and a metabolite in human urine by liquid chromatography-electrospray ionization mass spectrometry 987(2003)375

Application of new high-performance liquid chromatography and solid-phase extraction materials to the analysis of pesticides in human urine 987(2003)381

#### pH effects

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

#### Pharmaceutical analysis

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

# Pharmacokinetics

Pharmacokinetic study of free mangiferin in rats by microdialysis coupled with microbore high-performance liquid chromatography and tandem mass spectrometry 987(2003)367

### Phenols

High-performance liquid chromatographic stationary phases based on poly(methyloctylsiloxane) immobilized on silica. III. Stability evaluations 987(2003)93

On-column concentration of bisphenol A with one-step removal of humic acids in water 987(2003)389

Binding of environmental pollutants to the corn protein zein studied by high-performance liquid chromatography 987(2003)403

### Phenylboronic acid

Selective extraction of salbutamol from human plasma with the use of phenylboronic acid 987(2003)257

#### Photochemical reactors

Use of an on-line, precolumn photochemical reactor in highperformance liquid chromatography of naphthodianthrones in *Hypericum perforatum* preparations 987(2003)181

#### Plate heights

Experimental Van Deemter plots of shear-driven liquid chromatographic separations in disposable microchannels 987(2003)39

### PNU-248686A

Determination of PNU-248686A, a novel matrix metalloproteinase inhibitor, in human plasma by liquid chromatography-tandem mass spectrometry, following protein precipitation in the 96-well plate format 987(2003)249

### Polyethoxysilane

Experimental Van Deemter plots of shear-driven liquid chromatographic separations in disposable microchannels 987(2003)39

#### Poly(methyloctylsiloxane)

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

#### Poly(methyloctylsiloxane) silica stationary phases

High-performance liquid chromatographic stationary phases based on poly(methyloctylsiloxane) immobilized on silica. III. Stability evaluations 987(2003)93

# Polybutadiene-silica stationary phases

Preparation of a polybutadiene stationary phase immobilized by  $\gamma$  radiation for reversed-phase high-performance liquid chromatography 987(2003)77

### Polystyrene stationary phases

Hypercrosslinked polystyrene as a novel type of highperformance liquid chromatography column packing material. Mechanisms of retention 987(2003)67

#### Posaconazole

Use of high-performance liquid chromatographic and microbiological analyses for evaluating the presence or absence of active metabolites of the antifungal posaconazole in human plasma 987(2003)243

### Positional isomers

Non-aqueous capillary electrophoresis of the positional isomers of a sulfated monosaccharide 987(2003)467

### Pressurized capillary electrochromatography

Separation of peptides by pressurized capillary electrochromatography 987(2003)453

#### Principal component analysis

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

### **Process monitoring**

Process monitoring of anaerobic azo dye degradation by highperformance liquid chromatography—diode array detection continuously coupled to membrane filtration sampling modules 987(2003)395

#### **Propanoguanine**

Analysis of DNA adducts of acetaldehyde by liquid chromatography-mass spectrometry 987(2003)341

#### **Propranolol**

Selective extraction of salbutamol from human plasma with the use of phenylboronic acid 987(2003)257

#### **Proteins**

Separation of proteins on polymeric stationary phases grafted with various amine groups 987(2003)323

Binding of environmental pollutants to the corn protein zein studied by high-performance liquid chromatography 987(2003)403

#### Rate constant

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

### 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

# Restricted access media

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

#### **Retention factor**

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

# Retention mechanism

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

#### Retention prediction

Predictive approaches to gradient retention based on analyte structural descriptors from calculation chemistry 987(2003)29

#### Review

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

#### Salbutamol

Selective extraction of salbutamol from human plasma with the use of phenylboronic acid 987(2003)257

#### Sample handling

Process monitoring of anaerobic azo dye degradation by highperformance liquid chromatography—diode array detection continuously coupled to membrane filtration sampling modules 987(2003)395

### SCH 56592

Use of high-performance liquid chromatographic and microbiological analyses for evaluating the presence or absence of active metabolites of the antifungal posaconazole in human plasma 987(2003)243

#### Scopolamine

Preparation of a molecularly imprinted polymer for the solidphase extraction of scopolamine with hyoscyamine as a dummy template molecule 987(2003)103

#### 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

### Shear-driven chromatography

Experimental Van Deemter plots of shear-driven liquid chromatographic separations in disposable microchannels 987(2003)39

# Silanols

Evaluation of the applicability and the stability of a  $C_{18}$  stationary phase containing embedded urea groups 987(2003)139

# Siloxanes

Application of new high-performance liquid chromatography and solid-phase extraction materials to the analysis of pesticides in human urine 987(2003)381

# Sodium (2*R*)-3-{[(4'-chloro(1,1'-biphenyl)-4-yl]sulfonyl}-2-hydroxy-2-[(phenylsulfanyl)methyl]propanoate

Determination of PNU-248686A, a novel matrix metalloproteinase inhibitor, in human plasma by liquid chromatography-tandem mass spectrometry, following protein precipitation in the 96-well plate format 987(2003)249

### Solid-phase extraction

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

#### Solute transfer

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

#### **Sorbents**

Application of new high-performance liquid chromatography and solid-phase extraction materials to the analysis of pesticides in human urine 987(2003)381

#### 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

### 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

#### Stability studies

High-performance liquid chromatographic stationary phases based on poly(methyloctylsiloxane) immobilized on silica. III. Stability evaluations 987(2003)93

### Stationary phases, GC

Titanium(IV) tungstosilicate and titanium(IV) tungstophosphate: two new inorganic ion exchangers 987(2003)147

#### Stationary phases, LC

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  $\gamma$  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  $\rm C_{18}$  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

### Structure-retention relationships

Predictive approaches to gradient retention based on analyte structural descriptors from calculation chemistry 987(2003)29

### **Sugars**

Characterization of a novel diol column for high-performance liquid chromatography 987(2003)119

#### Sulfated fucose

Non-aqueous capillary electrophoresis of the positional isomers of a sulfated monosaccharide 987(2003)467

### Sulfoxides

Enantiomeric resolution of a series of chiral sulfoxides by highperformance liquid chromatography on polysaccharide-based columns with multimodal elution 987(2003)445

#### Sunscreens

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

### Supercritical fluid extraction

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

### Surface grafting

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

### Temperature effects

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

### tert.-butyl carbamoyl quinine

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

### **Tetracyclines**

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

### Thermal lens spectrometry

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

### Thermodynamic parameters

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

#### Ultrafiltration

Process monitoring of anaerobic azo dye degradation by highperformance liquid chromatography—diode array detection continuously coupled to membrane filtration sampling modules 987(2003)395

### Titanium tungstophosphate

Titanium(IV) tungstosilicate and titanium(IV) tungstophosphate: two new inorganic ion exchangers 987(2003)147

### Titanium tungstosilicate

Titanium(IV) tungstosilicate and titanium(IV) tungstophosphate: two new inorganic ion exchangers 987(2003)147

#### Tocopherols

Measurements of the major isoforms of vitamins A and E and carotenoids in the blood of people with spinal-cord injuries 987(2003)359

### **Triazines**

Determination of herbicides and a metabolite in human urine by liquid chromatography–electrospray ionization mass spectrometry 987(2003)375

### Tropane alkaloids

Preparation of a molecularly imprinted polymer for the solidphase extraction of scopolamine with hyoscyamine as a dummy template molecule 987(2003)103

### Trypsin inhibitors

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

### Tween 20

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

### **Tyrosines**

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

#### Uracil

High-performance liquid chromatographic stationary phases based on poly(methyloctylsiloxane) immobilized on silica. III. Stability evaluations 987(2003)93

#### Urea

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

### 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  $\rm C_{18}$  stationary phase containing embedded urea groups 987(2003)139

#### Uric acid

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

### 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

#### Validation

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

#### Vitamins

Measurements of the major isoforms of vitamins A and E and carotenoids in the blood of people with spinal-cord injuries 987(2003)359

# Water analysis

On-column concentration of bisphenol A with one-step removal of humic acids in water 987(2003)389

# Wine

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

### Zein

Binding of environmental pollutants to the corn protein zein studied by high-performance liquid chromatography 987(2003)403