



# Bibliography of analytical food chemistry

## 1 BOOKS, REVIEWS & SYMPOSIA

Chang SKC, Rayas-Duarte P, Holm E, McDonald C// Nth Dakota State Univ, Dept Food & Nutr, Fargo, ND 58105, USA  
*Anal Chem* 1993 65 (12) R334  
Food (Review)

Glidewell SM, Deighton N, Goodman BA\*, Hillman JR// \*Scottish Crop Res Inst, Dundee DD2 5DA, Scotland  
*J Sci Food Agr* 1993 61 (3) 281  
Detection of irradiated food - A review

Taylor A, Branch S, Crews HM, Halls DJ// Univ Surrey, Robens Inst Ind & Environm Hlth & Safety, Guildford GU2 5XH, Surrey, England  
*J Anal Atom Spectrom* 1993 8 (3) R79  
Atomic spectrometry update - Clinical and biological materials, foods and beverages

## 2 GENERAL

Franks F// Univ Cambridge, Dept Plant Sci, Downing St, Cambridge CB2 3EA, England  
*Cryo-Lett* 1993 14 (3) 131  
Shelf-life of foods - Guidelines for its determination and prediction

Guilland JC, Aubert R, Lhuissier M, Peres G, Montagnon B, Fuchs F, Merlet N, Astorg PO// Fac Med Dijon, Physiol Lab, 7 Blvd Jeanne D'Arc, F-21033 Dijon, France  
*Eur J Clin Nutr* 1993 47 (6) 445  
Computerized analysis of food records - Role of coding and food composition database

Sims A// Millipore Corp, 34 Maple St, Milford, Ma 01757, USA  
*Amer Lab* 1993 25 (9) 20  
Application of photodiode array to HPLC methods development - Pigments in food

## 3 AMINO ACIDS, PROTEINS & ENZYMES

Asano M, Endo I, Yamauchi F// Tohoku Univ, Fac Agr, 1-1 Tsutsumidori-Amamiyamachi, Aoba ku, Sendai, Miyagi 981, Japan  
*J Jpn Soc Food Sci Technol* 1993 40 (5) 323  
Soybean basic 7-S-globulin which was detected from okra and its isolation methods (Japanese, English Abstract)

Baier B, Luck M, Harms J, Muke O, Kruger E// Humboldt Univ Berlin, Fachbereich Lebensmitteltechnol, Lehrstuhl Garungstechnol, O-1040 Berlin, FRG  
*Monatssch Brauwissen* 1993 46 (6) 223  
Application of continuous flow analysis technology for quality control in the brewery industry. 4. Determining the content of free amino nitrogen in wort and beer (German, English Abstract)

Brett GM, Mills ENC\*, Tatham AS, Fido RJ, Shewry PR, Morgan MRA// \*Univ Bristol, AFRC, Inst Arable Crops Res, Dept Agr Sci, Long Ashton Res Stn, Bristol BS18 9AF, England  
*Theor Appl Genet* 1993 86 (4) 442  
Immunochemical identification of LMW subunits of glutenin associated with bread-making quality of wheat flours  
Carisano A// Direz Sci Star Spa, via Matteotti 142, I-20041 Agrate Brianza, Italy  
*Ind Aliment* 1993 32 (314) 346

Protein digestion in food matrices with a microwave furnace. 2. Determination of tryptophan (Italian, English Abstract)

De Bertorelli LO// UCV, Fac Agron, Inst Quim & Tecnol, Apartado Postal 4579, Maracay, Venezuela  
*Arch Latinoamer Nutr* 1992 42 (1) 46  
Extraction and characterization of grain prolamines of 6 sorghum (*Sorghum bicolor* L Moench) cultivars (Spanish, English Abstract)

Kim HHY, Jimenez-Flores R\*// \*Univ Illinois, Dept Food Sci, 1302 W Penn Ave, Urbana, Il 61801, USA  
*J Food Biochem* 1993 16 (5) 307  
2-Dimensional analysis of skin milk proteins using preparative isoelectric focusing followed by polyacrylamide gel electrophoresis

Margiotta B, Colaprico G, Dovidio R, Lafiandra D// CNR, Inst Germplasm, I-70126 Bari, Italy  
*J Cereal Sci* 1993 17 (3) 221  
Characterization of high M(r) subunits of glutenin by combined chromatographic (RP-HPLC) and electrophoretic separations and restriction fragment length polymorphism (RFLP) analyses of their encoding genes

Ranfft K, Faure U// Tech Univ Munchen Weihenstephan, Bayer Hauptversuchsanstalt Landwirtschaft, W-8050 Freising 1, FRG  
*Agribiol Res* 1993 46 (1) 65  
An intercomparison of methods for the determination of tryptophan in feedstuffs

Sarwar G, Botting HG// Hlth & Welf Canada, Hlth Protect Branch, Bur Nutr Sci, Tunney's Pasture, Banting Res Ctr, Ottawa, Ontario, Canada K1A 0L2  
*J Chromatogr-Biomed Appl* 1993 615 (1) 1  
Evaluation of liquid chromatographic analysis of nutritionally important amino acids in food and physiological samples

Tekes L, Juhasz T// Tabornok U 2, H-1149 Budapest, Hungary  
*Magy Allatory Lapja* 1993 48 (5) 272  
Demonstration of the antibodies of infectious bovine rhinotracheitis virus in individual and bulk milk samples (Hungarian, English Abstract)

Wan LL, Van Huystee RB\*// \*Univ Western Ontario, Dept Plant Sci, London, Ontario, Canada N6G 5B7  
*J Agr Food Chem* 1993 41 (6) 896  
Rapid determination of glycoproteins and glycopeptides by periodic acid Schiff reagent dot-blotting assay on nitrocellulose membrane

White RL, Wentzell PD\*, Beasy MA, Clark DS, Grund DW// \*Dalhousie Univ, Dept Chem, Halifax, Nova Scotia, Canada B3H 4J3  
*Anal Chim Acta* 1993 277 (2) 333  
Taxonomy of *Amanita* mushrooms by pattern recognition of amino acid chromatographic data

## 4 CARBOHYDRATES

Bernabe M, Fenwick R, Frias J, Jimenez-Barbero J, Price K, Valverde S, Vidal-Valverde C\*// \*CSIC, Inst Fermentaciones Ind, Juan Cierva 3, E-28006 Madrid, Spain  
*J Agr Food Chem* 1993 41 (6) 870  
Determination, by NMR spectroscopy, of the structure of ciceritol, a pseudotrisaccharide isolated from lentils

Dunphy DR, Synovec RE// Univ Washington, Dept Chem, BG-10, Seattle, Wa 98195, USA  
*Talanta* 1993 40 (6) 775  
High-speed chromatographic analysis of high-fructose corn syrup for

As a service to subscribers of Food Chemistry, this bibliography contains newly published material in the field of analytical food chemistry. The bibliography is divided into fourteen sections: 1 Books, Reviews & Symposia; 2 General; 3 Amino Acids, Proteins & Enzymes; 4 Carbohydrates; 5 Lipids; 6 Vitamins & Co-factors; 7 Trace Elements & Minerals; 8 Drug, Biocide & Chemical Residues; 9 Toxins; 10 Additives; 11 Flavours & Aromas; 12 Organic Acids; 13 Animal Products; 14 Plant & Microbial Products. Within each section, articles are listed in alphabetical order with respect to the author. Where there are no papers to appear under a heading, it will be omitted.

## process monitoring

Grabka J// Tech Univ Lodz, Inst Chem Technol, Ul B Stefanowskiego 4-10, PL-90924 Lodz, Poland

*Zuckerindustrie* 1993 **118** (5) 369

A <sup>13</sup>C NMR study of glucose, fructose and sucrose interactions with calcium hydroxide

Gromes R, Ruhland J, Piendl A// E Merck Ag, Forsch Reagenzien Biochem, Frankfurter Str 250, W-6100 Darmstadt, FRG

*Monatssch Brauwissen* 1993 **46** (6) 221

Determination and occurrence of total dietary fiber in beer (German, English Abstract)

Mauch W// Tech Univ Berlin, Berlin Sugar Inst, W-1000 Berlin 12, FRG

*Zuckerindustrie* 1993 **118** (5) 379

Clarification with aluminium sulphate for beet analysis

Olinger JM, Griffiths PR\*// \*Univ Idaho, Dept Chem, Moscow, Id 83843, USA

*Appl Spectrosc* 1993 **47** (6) 687

Effects of sample dilution and particle size morphology on diffuse reflection spectra of carbohydrate systems in the near-infrared and mid-infrared. 1. Single analytes

Olinger JM, Griffiths PR\*// \*Univ Idaho, Dept Chem, Moscow, Id 83843, USA

*Appl Spectrosc* 1993 **47** (6) 695

Effects of sample dilution and particle size morphology on diffuse reflection spectra of carbohydrate systems in the near-infrared and mid-infrared. 2. Durum wheat

Rosenbruch KJ// Address not available.

*Zuckerindustrie* 1993 **118** (5) 377

Physical methods for analysing sugar products

Uhlenbrock W, Burba M, Courtaudon L// Pfeifer & Langen, Zent Lab, Postfach 1352, W-5013 Elsdorf, FRG

*Zuckerindustrie* 1993 **118** (5) 345

Determination of total nitrogen in sugar beet and sugar factory products using pyrochemiluminescence (German, English Abstract)

Yamashita S, Baba N, Moriyama H// Fukuoka Agr Res Ctr, 587 Yoshiki, Chikushino Shi, Fukuoka 818, Japan

*J Jpn Soc Food Sci Technol* 1993 **40** (5) 365

Application of dual-wavelength spectrophotometry to determination of amylose and amylopectin content (Japanese, English Abstract)

Yeoh HH, Truong VD// Natl Univ Singapore, Dept Bot, Singapore 0511, Singapore

*Food Chem* 1993 **47** (3) 295

Quantitative analysis of linamarin in cassava using a cassava β-glucosidase electrode

## 5 LIPIDS

Aitzetmuller K, Gronheim M// BAGKF, Inst Chem & Phys Lipids, Pissalle 76, W-4400 Munster, FRG

*Fett Wiss Technol* 1993 **95** (5) 164

Gradient elution HPLC of fats and oils with laser light scattering detection

Alonso L// CSIC, Inst Prod Lacteos Asturias, Carretera Infiesto, E-33300 Villaviciosa, Spain

*Chromatographia* 1993 **35** (9-12) 649

Capillary gas chromatography of some triglycerides in cheese using programmed-temperature injection

Artho A, Grob K, Mariani C// Kantonales Lab Zurich, CH-8030 Zurich, Switzerland

*Fett Wiss Technol* 1993 **95** (5) 176

On-line LC-GC for the analysis of the minor components in edible oils and fats - The direct method involving silylation

Bhakare HA, Khotpal RR, Saha SK, Kulkarni AS\*// \*Nagpur Univ, Laxminarayan Inst Technol, Nagpur 440010, Maharashtra, India

*J Indian Chem Soc* 1992 **69** (10) 696

GLC studies in some seed oils

Brutting R, Spitteller G// Univ Bayreuth, Lehrstuhl Organ Chem 1, Postfach 101251, W-8580 Bayreuth, FRG

*Fett Wiss Technol* 1993 **95** (5) 193

Products of the dimerisation of unsaturated fatty acids. 10. Identification of estolides in early phase of the dimerisation (German, English Abstract)

Fabien R, Craske JD\*, Wootton M// \*Univ New Sth Wales, Dept Food Sci & Technol, POB 1, Kensington, NSW 2033, Australia

*J Amer Oil Chem Soc* 1993 **70** (6) 551

Quantitative analysis of synthetic mixtures of triacylglycerols with fatty acids from caprylic to stearic

Filip V, Kleinova M// Prague Inst Chem Technol, Inst Milch & Fettechnol Tech, CS-16628 Prague 6, Czech Rep

*Z Lebensmittel-Untersuch Fors* 1993 **196** (6) 532

The determination of monoglycerides, diglycerides and triglycerides by HPLC (German, English Abstract)

Gregor G, Scholz A// Humboldt Univ Berlin, Inst Grundlagen Nutztierwissenschaften, Fachbereich Agr, Invalidenstr 42, O-1040 Berlin, FRG

*Arch Tierzucht* 1993 **36** (3-4) 383

Evaluation of intramuscular fat content in the longissimus dorsi muscle by video image analysis and discussion of objectives in pig breeding

Hudiyono S, Adenier H\*, Chaveron H// \*Univ Compiègne, Sci Aliments Lab, BP 649, F-60206 Compiègne, France

*Rev Fr Corps Gras* 1993 **40** (3-4) 131

Determination of the triglyceridic composition of a hydrogenated palm oil fraction (German, English Abstract)

Kaufmann P, Olsson NU// Karlshamns Lipidtekn Ab, Box 6686, S-11384 Stockholm, Sweden

*Chromatographia* 1993 **35** (9-12) 517

Determination of intact molecular species of bovine milk 1, 2-diacyl-sn-glycero-3-phosphocholine and 1,2-diacyl-sn-glycero-3-phosphoethanolamine by reversed phase HPLC, a multivariate optimization

Lembke P, Engelhardt H\*// \*Univ Saarland, Inst Angew Phys Chem, W-6600 Saarbrücken, FRG

*Chromatographia* 1993 **35** (9-12) 509

Development of a new SFE method for rapid determination of total fat content of food

Metwally MMK, Moore JS, Nasr MA// Univ Suez Canal, Fac Agr, Dept Food Sci & Technol, Ismailia, Egypt

*Fett Wiss Technol* 1993 **95** (5) 186

Mass spectrometry of irradiated linolenic acid

Murcia MA, Villalain J\*// \*Univ Murcia, Fac Vet, Dept Bromatol A, Apartado Postal 4021, E-30080 Murcia, Spain

*J Sci Food Agr* 1993 **61** (3) 345

Phospholipid composition of canned peas by <sup>31</sup>P-NMR

Ohta H, Seto Y, Tsunoda N// Natl Res Inst Police Sci, 6 Sanban cho, Chiyoda ku, Tokyo 102, Japan

*Jpn J Toxicol Environ Health* 1993 **39** (2) 155

Determination of trans-10-hydroxydecanoic acid in royal jelly by capillary gas chromatography (Japanese, English Abstract)

Rosenthal I, Rosen B// Agr Res Org, Volcani Ctr, Dept Food Sci, POB 6, IL-50250 Bet Dagan, Israel

*J Chem Educ* 1993 **70** (6) 480

100 years of measuring the fat content of milk

Singleton JA// Nth Carolina State Univ, Dept Bot, USDA ARS, SAA, Raleigh, NC 27695, USA

*J Amer Oil Chem Soc* 1993 **70** (6) 637

Enrichment of phospholipids from neutral lipids in peanut oil by high-performance liquid chromatography

Spyres G// AE Staley Mfg Co, 2200 E Eldorado, Decatur, IL 62525, USA

*J Chromatogr* 1993 **638** (1) 71

Determination of 3-chloropropane-1,2-diol in hydrolyzed vegetable proteins by capillary gas chromatography with electrolytic conductivity detection

Teng JJ, Gowda NMM// Univ Texas, Med Branch, Dept Human Biol Chem & Genet, Galveston, Tx 77550, USA

*Chromatographia* 1993 **35** (9-12) 627

Analysis of N-3 fatty acids in fish oils by high-performance liquid chromatography

## 6 VITAMINS & CO-FACTORS

Fontaine J, Horr J// Degussa Ag, Div Ind & Fine Chem, Appl Technol,

Feed Addit, Postfach POB 1345, W-6450 Hanau, FRG  
*Agribiol Res* 1993 **46** (1) 10  
 Determination of supplemented nicotinic acid or nicotinamide in compound feed by HPLC after cleaning of the feed extract with cationic sorbent extraction

Grigorev AM, Vysochina LA, Staroverov VM, Deineka VI, Vysochin AP, Belova VM// All Union Vitamin Res Inst, Belgorod Branch, Moscow, Russia

*J Anal Chem-Engl Tr* 1992 **47** (10-11) 1392

High-performance liquid chromatography of synthetic vitamin B<sub>1</sub>

Hollman PCH, Slangen JH, Wagstaffe PJ, Faure U, Southgate DAT, Finglas PM// DLO, State Inst Qual Control Agr Prod, Bornsesteeg 45, 6708 PD Wageningen, The Netherlands

*Analyst* 1993 **118** (5) 475

Intercomparison of methods for the determination of vitamins in foods. 1. Fat-soluble vitamins

Hollman PCH, Slangen JH, Wagstaffe PJ, Faure U, Southgate DAT, Finglas PM// DLO, State Inst Qual Control Agr Prod, Bornsesteeg 45, 6708 PD Wageningen, The Netherlands

*Analyst* 1993 **118** (5) 481

Intercomparison of methods for the determination of vitamins in foods. 2. Water-soluble vitamins

Homberg E// Bundesanstalt Getreide Kartoffel & Fettforsch, Inst Chem & Phys Fette, Piusallee 76, W-4400 Munster, FRG

*Fett Wiss Technol* 1993 **95** (5) 181

Determination of vitamin D in margarine (German, English Abstract)

Jiang ZL, Liang AH// Guangxi Normal Univ, Dept Chem, Instrumental Anal Lab, Guilin, Peoples Rep China

*Anal Chim Acta* 1993 **278** (1) 53

Catalytic kinetic determination of trace amounts of ascorbic acid with single-sweep oscillopolarography

Muller H// Bundesforsch Anstalt Ernährung, Inst Ernährungsphysiol, Engesserstr 20, W-7500 Karlsruhe 1, FRG

*Z Lebensmittel-Untersuch Fors* 1993 **196** (6) 518

Determination of folic acid content in foods of animal origin by means of high-performance liquid chromatography (HPLC) (German, English Abstract)

Srinivas B, Srinivasulu K\*// \*Vikram Univ, Sch Studies Chem, Ujjain 456010, Madhya Pradesh, India

*J Indian Chem Soc* 1992 **69** (10) 669

Separation of some water-soluble vitamins by thin-layer chromatography using heulandite as an adsorbent

Vinas P, Erroz CL, Cordoba MH\*// \*Univ Murcia, Fac Chem, Dept Analyt Chem, E-30071 Murcia, Spain

*Chromatographia* 1993 **35** (9-12) 681

Determination of methylanthranilate and methyl *N*-methylanthranilate in beverages by liquid chromatography with fluorescence detection

## 7 TRACE ELEMENTS & MINERALS

Kolbe H, Zhang WL, Scharer H, Wathsack T, Kunsch U// Inst Bodenkult & Pflanzenbau, Gustav Kuhn Str 8, O-7022 Leipzig, FRG

*Agribiol Res* 1993 **46** (1) 89

Nitrate determination in plant, mushroom and algae species using an ion-selective electrode

Krivan V, Barth P, Morales AF// Univ Ulm, Sekt Analyt & Hochstreinigung, Albert Einstein Allee 11, W-7900 Ulm, FRG

*Mikrochim Acta* 1993 **110** (4-6) 217

Multielement analysis of green coffee and its possible use for the determination of origin

Oshima H, Yamada S, Saito I, Hayakawa J// Aichi Prefectural Inst Publ Hlth, Nagare 7-6, Kita ku, Nagoya 462, Japan

*Jpn J Toxicol Environ Health* 1993 **39** (2) 114

A simple and rapid method for determination of heme and non-heme irons in food (Japanese, English Abstract)

Sharif AKM, Alamgir M, Krishnamoorthy KR, Mustafa AI// Atom Energy Res Estab, Inst Nucl Sci & Technol, POB 3787, Dhaka, Bangladesh

*J Radioanal Nucl Chem Art* 1993 **170** (2) 299

Determination of arsenic, chromium, mercury, selenium and zinc in tropical marine fish by neutron activation

Soto-Ferreiro RM, Bermejo-Barrera P// Univ Santiago de Compostela, Fac Chem, Dept Analyt Chem Nutr & Bromatol, E-15706 Santiago de Compostela, Spain

*Analisis* 1993 **21** (4) 197

High-pressure acid digestion using microwave heating for the determination of zinc, iron and copper in mussels by flame atomic absorption spectrometry

Valencia MC, Gimeno D, Capitan-Vallvey LF\*// \*Univ Granada, Fac Sci, Dept Analyt Chem, E-18071 Granada, Spain

*Anal Lett* 1993 **26** (6) 1211

Determination of tin in natural waters and fruit juices by solid-phase spectrophotometry

Wolters MGE, Schreuder HAW, Van den Heuvel G, Van Lonkhuijsen HJ, Hermus RJJ, Voragen AGJ// TNO, Inst Biotechnol & Chem, Dept Biochem & Phys Chem, POB 360, 3700 AJ Zeist, The Netherlands

*Brit J Nutr* 1993 **69** (3) 849

A continuous *in vitro* method for estimation of the bioavailability of minerals and trace elements in foods - Application to breads varying in phytic acid content

## 8 DRUG, BIOCIDES & CHEMICAL RESIDUES

Abdallah AM, El-Defrawy MM, Hassan AEM// Univ Mansoura, Fac Sci, Dept Chem, POB 30, Mansoura 35516, Egypt

*J Indian Chem Soc* 1992 **69** (10) 699

Determination of mercury in foods and water by cold vapour-atomic absorption spectrometry

Abrantes S// Address not available.

*J High Res Chromatogr* 1993 **16** (3) 193

GC-MS identification of styrene and oligomers in polystyrene plastic for milk packaging - Headspace and solution injection technique (*J High Res Chromatogr* 1993, **16** 133) (Correction)

Benard P, Smyej M, Ilboudo AJ, Bengone T, Sawadogo GJ, Germain C// Ecole Natl Vet Toulouse, Dept Prod Anim Qual & Secur Denrees, Radioelements & Etud Metab Lab, F-31076 Toulouse, France

*Rev Med Vet* 1993 **144** (4) 305

Appreciation of residual levels of drugs used in veterinary medicine by whole-body autoradiography - Towards new methods of detection (French, English Abstract)

Blanchflower WJ, Hewitt SA, Cannavan A, Elliott CT, Kennedy DG// Dept Agr, Div Vet Sci, Belfast BT4 3SD, Northern Ireland

*Biol Mass Spectrom* 1993 **22** (6) 326

Detection of clenbuterol residues in bovine liver, muscle, retina and urine using gas chromatography/mass spectrometry

Bolzoni L, Sannino A, Bandini M// Stn Sperimentale Ind Conserve Alimentari, Faustino Tanara 31-A, I-43100 Parma, Italy

*Food Chem* 1993 **47** (3) 299

Determination of ethylenethiourea and propylenethiourea in tomato products and in fruit purees

Brandon DL, Binder RG, Wilson RE, Montague WC// USDA ARS, Western Reg Res Ctr, Food Safety Res Unit, 800 Buchanan St, Albany, Ca 94710, USA

*J Agr Food Chem* 1993 **41** (6) 996

Analysis of thiabendazole in potatoes and apples by ELISA using monoclonal antibodies

Doherty FG, Evans DW, Neuhauser EF// Aquatox Res Inc, 1201 E Fayette St, Syracuse, NY 13210, USA

*Ecotoxicol Environ Safety* 1993 **25** (3) 328

An assessment of total and leachable contaminants in zebra mussels (*Dreissena polymorpha*) from Lake Erie

Driss MR, Hennion MC, Bouguerra ML\*// \*Fac Sci Tunis, Dept Chim, Campus Univ, Tunis 1060, Tunisia

*J Chromatogr* 1993 **639** (2) 352

Determination of carbaryl and some organophosphorus pesticides in drinking water using on-line liquid chromatographic preconcentration techniques

Ford CA, Muir DCG\*, Norstrom RJ, Simon M, Mulvihill MJ// \*Freshwater Inst, Dept Fisheries & Oceans, Winnipeg, Manitoba, Canada R3T 2N6

*Chemosphere* 1993 **26** (11) 1981

- Development of a semi-automated method for non-ortho PCBs - Application to Canadian arctic marine mammal tissues  
Giersch T// Tech Univ Munich, Dept Bot, Weihenstephan, W-8050 Freising 12, FRG  
*J Agr Food Chem* 1993 **41** (6) 1006  
A new monoclonal antibody for the sensitive detection of atrazine with immunoassay in microtiter plate and dipstick format  
Haagsma N, Keegstra JR, Scherpenisse P// Univ Utrecht, Fac Vet Med, Dept Sci Food & Anim Origin, Chem Sect, POB 80175, 3508 TD Utrecht, The Netherlands  
*J Chromatogr-Biomed Appl* 1993 **615** (2) 289  
High-performance liquid chromatographic determination of spectinomycin in swine, calf and chicken plasma  
Hong JK, Eo YW, Rhee JS, Kim TJ\*, Kim KJ// \*Korea Adv Inst Sci & Technol, Ctr Adv Anal, Seoul 131, South Korea  
*J Chromatogr* 1993 **639** (2) 261  
Simultaneous analysis of 25 pesticides in crops using gas chromatography and their identification by gas chromatography-mass spectrometry  
Johansen HR, Thorstensen C, Greibrokk T, Becher G// Univ Oslo, Dept Chem, POB 1033, N-0315 Oslo, Norway  
*J High Res Chromatogr* 1993 **16** (3) 148  
On-line SFE-GC for determination of PCBs in human milk and blood serum  
Kaniou I, Tsoukali H, Epivatianos P// Aristotelian Univ Salonika, Vet Inst Food Hyg, Salonika, Greece  
*Spectrosc Lett* 1993 **26** (6) 969  
Sulphonamides determination in animal tissues by ion-pair HPLC  
Lommen A, Groot MJ// State Inst Qual Control Agr Prod, Bornsesteeg 45, 6708 PD Wageningen, The Netherlands  
*J Vet Med A-Zbl Vet A-Physiol* 1993 **40** (4) 271  
Combining 2 independent indirect methods as a new possibility for screening the illegal use of growth promotants  
Manos CG, Kinney RM, Lisk DJ// Environm Sci & Engrn Inc, Gainesville, FL 32603, USA  
*Chemosphere* 1993 **26** (11) 2031  
Analysis of strontium 90 in the bones of brown trout (*Salmo trutta*) from Lake Ontario  
Maxwell RJ, Pensabene JW, Fiddler W// USDA ARS, East Reg Res Ctr, 600 E Mermaid Lane, Philadelphia, Pa 19118, USA  
*J Chromatogr Sci* 1993 **31** (6) 212  
Multiresidue recovery at ppb levels of 10 nitrosamines from frankfurters by supercritical fluid extraction  
Medina I, Rubi E, Mejuto C, Casais C, Cela R\*// \*Univ Santiago de Compostela, Dept Analyt Chem Nutr & Bromatol, Santiago de Compostela, Spain  
*Analisis* 1993 **21** (4) 215  
Speciation of methylmercury in marine samples by HPLC with UV detection  
Regis-Rolle SD, Bauville GM// INRA, Stn Phytopharm, Domaine St Paul, BP 91, F-84143 Montfavet, France  
*Pestic Sci* 1993 **37** (3) 273  
High-performance liquid chromatographic method for the determination of carbendazim residues in crops, grains, and wines with fluorescent detection  
Rysanek D, Schlegelova J// Vyzkumny Ustav Vet Lekarstvi, Hudcova 70, CS-62132 Brno, Czechoslovakia  
*Vet Med-Czech* 1993 **38** (4) 215  
The efficacy of BR-TEST and INTEST in determination of chemotherapeutic residues in raw and preserved milk (Czech, English Abstract)  
Saeed T, Abu-Dagga F, Saraf M// Kuwait Inst Sci Res, Cent Analyt Lab, POB 24885, Safat 13109, Kuwait  
*Arab Gulf J Sci Res* 1993 **11** (1) 1  
Analysis of residual pesticides present in edible locusts in Kuwait  
Sanchez FG, Gallardo AA// Fac Sci Malaga, Dept Analyt Chem, E-29071 Malaga, Spain  
*Mikrochim Acta* 1993 **110** (4-6) 161  
Fluorimetric determination of the rodenticide ANTU in spiked wheat grain  
Shitskova AP, Aniskina RI, Guseva VA, Demina SY, Vendilo MV, Yudina TV, Mikhailova OG, Chkhvirkiya YG// FF Erisman Hyg Res Inst, Moscow, Russia  
*Vestn Rossijskoi Acad Med Nauk* 1992 (11-12) 33  
Methodological aspects in the theory of sanitary standardization of pesticides in foodstuffs (Russian)  
Steenbaar JG, Hajee CAJ, Haagsma N\*// \*Univ Utrecht, Fac Vet Med, Dept Sci Food Anim Origin, POB 80175, 3508 TD Utrecht, The Netherlands  
*J Chromatogr-Biomed Appl* 1993 **615** (1) 186  
High-performance liquid chromatographic determination of the anthelmintic mebendazole in eel muscle tissue  
Wigfield YY, Grant R// Agr Canada, Food Prod & Inspect Branch, Div Lab Serv, Ottawa, Ontario, Canada K1A 0C6  
*Bull Environ Contam Toxicol* 1993 **51** (2) 171  
Analysis for atrazine in fortified cornmeal and corns using a commercially available enzyme immunoassay microtiter plate
- ## 9 TOXINS
- Enneking D, Giles LC, Tate ME\*, Davies RL// \*Univ Adelaide, Waite Agr Res Inst, POB 1, Glen Osmond, SA 5064, Australia  
*J Sci Food Agr* 1993 **61** (3) 315  
L-Canavanine - A natural feed-intake inhibitor for pigs (Isolation, identification and significance)  
Franco JM, Fernandez-Vila P// CSIC, Inst Invest Marinas, E Cabello 6, E-36208 Vigo, Spain  
*Chromatographia* 1993 **35** (9-12) 613  
Separation of paralytic shellfish toxins by reversed phase high-performance liquid chromatography, with postcolumn reaction and fluorimetric detection  
Jubb TF, Ellis TM, Gregory AR// Dept Agr, Coolibah Dr, Kununurra, WA 6743, Australia  
*Aust Vet J* 1993 **70** (6) 226  
Diagnosis of botulism in cattle using ELISA to detect antibody to botulinum toxins  
Miles CO, Wilkins AL, Munday SC, Faloyen A, Holland PT, Smith BL// New Zealand Pastoral Agr Res Inst Ltd, Ruakura Agr Res Ctr, Private Bag 3123, Hamilton, New Zealand  
*J Agr Food Chem* 1993 **41** (6) 914  
Identification of insoluble salts of the beta-D-glucuronides of episarsapogenin and epismilagenin in the bile of lambs with alveld and examination of *Narhecium ossifragum*, *Tribulus terrestris*, and *Panicum miliaceum* for sapogenins  
Quilliam MA, Janecek M, Lawrence JF// Natl Res Council Canada, Inst Marine Biosci, 1411 Oxford St, Halifax, Nova Scotia, Canada B3H 3Z1  
*Rapid Commun Mass Spectrom* 1993 **7** (6) 482  
Characterization of the oxidation products of paralytic shellfish poisoning toxins by liquid chromatography/mass spectrometry  
Taylor SL, King JW, Richard JL, Greer JI// USDA ARS, Natl Ctr Agr Utilizat Res, Mycotoxin Res Unit, Peoria, IL 61604, USA  
*J Agr Food Chem* 1993 **41** (6) 910  
Analytical-scale supercritical fluid extraction of aflatoxin B<sub>1</sub> from field-inoculated corn  
Wils ERJ, Hulst AG// TNO, Prins Maurits Lab, POB 45, Rijswijk, The Netherlands  
*Rapid Commun Mass Spectrom* 1993 **7** (6) 413  
Determination of saxitoxin by liquid chromatography thermospray mass spectrometry
- ## 10 ADDITIVES
- Barwick IM, Warwick P, Crosby NT// Loughborough Univ Technol, Dept Chem, Loughborough LE11 3TU, England  
*Analyst* 1993 **118** (5) 489  
Recovery of sulfadimidine from pig feeds  
Castro JCG, Sanchez MJ, Delgado MAR, Romero CD// Univ La Laguna, Dept Analyt Chem Food Sci & Toxicol, E-38204 La Laguna, Spain  
*Mikrochim Acta* 1993 **110** (4-6) 263  
4th order derivative spectrophotometric determination of quinine in soft drinks

Low NH, Wudrich GG// Univ Saskatchewan, Dept Appl Microbiol & Food Sci, Saskatoon, Saskatchewan, Canada S7N 0W0  
*J Agr Food Chem* 1993 41 (6) 902  
Detection of inexpensive sweetener addition to grapefruit juice by HPLC-PAD

Sauvage E, Rocca JL, Toussaint G// Univ Lyon 1, Sci Analyt Lab, CNRS, UA 435, 43 Blvd 11 Novembre 1918, F-69622 Villeurbanne, France  
*J High Res Chromatogr* 1993 16 (4) 234

The use of nitrous oxide for supercritical fluid extraction of pharmaceutical compounds from animal feed

## 11 FLAVOURS & AROMAS

Alpuche-Solis AG, Paredes-Lopez O\*// \*IPN, Ctr Invest & Estudios Avanzados, Biotecnol Alimentos Lab, Apdo Postal 629, Irapuato 36500, Guanajuato, Mexico

*J Food Biochem* 1993 16 (5) 265

Assessment of glucosinolates in broccoli by 3 different methodologies

Bounoshita M, Hibi K, Nakamura H// Jasco Corp, Ishikawa, Hachioji 192, Japan

*Anal Sci* 1993 9 (3) 425

Determination of enantiomer ratios of D,L-carvone in supercritical fluid extract from caraway seeds and spearmint leaves by high-performance liquid chromatography with polarimetric and ultraviolet spectrophotometric detection

Lin JCC, Nagy S, Klim M// Kellogg Co, Ctr Sci & Technol, Battle Creek, Mi 49016, USA

*Food Chem* 1993 47 (3) 235

Application of pattern recognition techniques to sensory and gas chromatographic flavor profiles of natural orange aroma

Ohta H, Fong CH, Nerhow M, Hasegawa S// Minist Agr Forestry & Fisheries, Chugoku Natl Agr Expt Stn, Fukuyama, Hiroshima 721, Japan

*J Chromatogr* 1993 639 (2) 295

Thin-layer and high-performance liquid chromatographic analyses of limonoids and limonoid glucosides in citrus seeds

Ramarathnam N, Rubin LJ, Diosady LL// Univ Toronto, Dept Chem Engr, 200 Coll St, Toronto, Ontario, Canada M5S 1A4

*J Agr Food Chem* 1993 41 (6) 933

Studies on meat flavor. 3. A novel method for trapping volatile components from uncured and cured pork

Ramarathnam N, Rubin LJ, Diosady LL// Univ Toronto, Dept Chem Engr, 200 Coll St, Toronto, Ontario, Canada M5S 1A4

*J Agr Food Chem* 1993 41 (6) 939

Studies on meat flavor. 4. Fractionation, characterization, and quantitation of volatiles from uncured and cured beef and chicken

Yan XJ, Wang ZB, Barlow P// Univ HumberSide, Sch Food Fisheries & Environm Studies, Nuns Corner, Grimsby DN34 5BQ, England

*Food Chem* 1993 47 (3) 289

Quantitative determination and profiling of total sulphur compounds in garlic health products using a simple GC procedure

## 12 ORGANIC ACIDS

Brogley J, Mullick J, Quigley MN\*// \*Duquesne Univ, Dept Chem, Mellon Hall, Pittsburgh, Pa 15282, USA

*J Chem Educ* 1993 70 (6) 507

Liquid chromatographic determination of malic and lactic acids in wine following malolactic fermentation

## 13 ANIMAL PRODUCTS

Draisci R, Cavalli S, Lucentini L, Stacchini A// Ist Super Sanita, Alimenti Lab, Viale Regina Elena 299, I-00161 Rome, Italy

*Chromatographia* 1993 35 (9-12) 584

Ion exchange separation and pulsed amperometric detection for determination of biogenic amines in fish products

Hartjen P, Preisinger R, Ernst E// Christian Albrechts Univ Kiel, Inst Tierzucht & Tierhaltung, Olshausenstr 40, W-2300 Kiel 1, FRG

*Arch Tierzucht* 1993 36 (3-4) 315

Prediction of bovine carcass composition. 1. Prediction of carcass composition of live cattle using ultrasonic measurements and at carcass side using additional traits

Jemmi T, Schlosser H// Bundesamt Vet Wesen, Sekt Mikrobiol, Schwarzenburgstr 161, CH-3097 Lieberfeld, Switzerland  
*Fleischwirtschaft* 1993 73 (5) 600

Species identifications in marinated and heat-treated meat using isoelectric focusing (German, English Abstract)

Serrano J, Kuehl DW, Naumann S// US EPA, 6201 Congdon Blvd, Duluth, Mn 55804, USA

*J Chromatogr-Biomed Appl* 1993 615 (2) 203

Analytical procedure and quality assurance criteria for the determination of major and minor deoxynucleosides in fish tissue DNA by liquid chromatography ultraviolet spectroscopy and liquid chromatography-thermospray mass spectrometry

## 14 PLANT & MICROBIAL PRODUCTS

Agullo E, Rodriguez MS// Univ Nacl Sur, Dept Quim & Ingn Quim, Catedra Bromatol, Avda Alem 1253, RA-8000 Bahia Blanca, Argentina

*An Asoc Quim Argent* 1992 80 (6) 471

Tannin determination in sorghum - Unification of the results obtained by different methods (Spanish, English Abstract)

Goodrich J, Parker C, Phelps R// Louisiana State Univ, Shreveport, La 71115, USA

*J Chem Educ* 1993 70 (6) A158

The microscale separation of lycopene and  $\beta$ -carotene from tomato paste

Gutmann M// Univ Munich, Inst Fruit Culture, W-8050 Freising, FRG

*Biotech Histochem* 1993 68 (3) 161

Localization of proanthocyanidins using *in situ* hydrolysis with sulfuric acid

Ittah Y, Kanner J, Granit R// Agr Res Org, Dept Food Sci, POB 6, IL-50250 Bet Dagan, Israel

*J Agr Food Chem* 1993 41 (6) 899

Hydrolysis study of carotenoid pigments of paprika (*Capsicum annum* L variety lehava) by HPLC photodiode array detection

Kubiczek RP, Huebner FR, Bietz JA// Polish Acad Sci, Bot Garden, Warsaw 42, Poland

*J Cereal Sci* 1993 17 (3) 191

Reversed-phase high-performance liquid chromatography of secalins - Application to rye cultivar identification

Lawrence KC, Nelson SO// USDA ARS, Richard B Russell Agr Res Ctr, Athens, Ga 30613, USA

*Trans ASAE* 1993 36 (2) 477

Radio-frequency density-independent moisture determination in wheat

Mattivi F// Ist Agr, Anal & Ric Lab via Mach 1, I-38010 S Michele Alladig, Italy

*Z Lebensmittel-Untersuch Fors* 1993 196 (6) 522

Solid phase extraction of trans-resveratrol from wines for HPLC analysis

Mercier J, Arul J\*// \*Univ Laval, Dept Sci & Technol Aliments, St Foy, Quebec, Canada G1K 7P4

*J Sci Food Agr* 1993 61 (3) 375

A simple method for the extraction of the isocoumarin 6-methoxymellein from carrot tissues

Sanz J, De Marcos S, Muro O, Galban J// Univ La Rioja, Dept Analyt Chem, Obispo Bustamante 3, E-26001 Logrono, Spain

*Mikrochim Acta* 1993 110 (4-6) 193

Ammonium determination in wine by gas phase molecular absorption spectrometry

Wilson RH, Slack PT, Appleton GP, Sun L, Belton PS// AFRC, Inst Food Res, Norwich Lab, Norwich Sci Pk, Colney Lane, Norwich NR4 7UA, England

*Food Chem* 1993 47 (3) 303

Determination of the fruit content of jam using Fourier transform infrared spectroscopy