

# Bibliography of analytical, nutritional and clinical methods

(Five weeks journals - Search completed at 30th August 1994)

## 1 BOOKS, REVIEWS & SYMPOSIA

- Arai S// Univ Tokyo, Dept Agr Chem, Bunkyo ku, Tokyo 113, Japan  
*Nippon Nogeikagaku Kaishi* 1994 68 (7) 1119  
Enzymological and molecular biological studies on analysis and design of various functions of foods (Review) (Japanese, English Abstract)
- Gibson T// Leeds Biochemicals, Leeds, England  
*Biosens Bioelectron* 1994 9 (6) ix  
Royal Society of Chemistry, Food Chemistry Group Symposium - Biosensors in Food Analysis, Boddington Hall, Univ Leeds, England, 11-12 April 1994 (Meeting Report)
- Shantha T// Cent Food Technol Res Inst, Dept Microbiol & Bioengn, Mysore 570013, Karnataka, India  
*J Food Sci Technol-Mysore* 1994 31 (2) 91  
Methods for estimation of aflatoxins: A critical appraisal (Review)
- Swatland HJ, Ananthanarayanan SP, Goldenberg AA// Univ Guelph, Dept Anim & Poultry Sci, Guelph, Ontario, Canada N1G 2W1  
*J Anim Sci* 1994 72 (6) 1475  
A review of probes and robots: Implementing new technologies in meat evaluation
- Watanabe H// Tokyo Univ Fisheries, Dept Food Sci & Technol, Minato ku, Konan 4, Tokyo 108, Japan  
*J Jpn Soc Food Sci Technol* 1994 41 (6) 448  
Application of NMR imaging to food science (Review) (Japanese, English Abstract)

## 2 GENERAL

- Bsat N, Wiedmann M, Czajka J, Barany F, Piani M, Batt CA// \*Cornell Univ, Med Ctr, Coll Med, Dept Microbiol, New York, NY 10021, USA  
*Food Technol* 1994 48 (6) 142  
Food safety applications of nucleic acid based assays (Overview)
- Deshpande SS// Idetek Inc, 1245 Reamwood Ave, Sunnyvale, Ca 94089, USA  
*Food Technol* 1994 48 (6) 136  
Immunodiagnosics in agricultural, food, and environmental quality control (Overview)
- Deshpande SS, Rocco RM// Idetek Inc, 1245 Reamwood Ave, Sunnyvale, Ca 94089, USA  
*Food Technol* 1994 48 (6) 146  
Biosensors and their potential use in food quality control (Overview)
- Favier JP, Buijs J, Miklos A, Lorincz A, Bicanic D// Wageningen Univ Agr, Agrotechnion, Dept Agr Engn & Phys, Laser Photoacoust Lab, Bomenweg 4, 6703 HD Wageningen, The Netherlands  
*Z Lebensmittel-Untersuch Fors* 1994 199 (1) 59  
Photoacoustic characterization of different food samples
- Gunasekaran S, Ding KX// Univ Wisconsin, Dept Agr Engn, 460 Henry Mall, Madison, Wi 53706, USA  
*Food Technol* 1994 48 (6) 151  
Using computer vision for food quality evaluation (Overview)
- Litchfield JB, Reid JF, Schmidt SJ// Univ Illinois, Dept Agr Engn, 1304 West Penn Ave, Urbana, Il 61801, USA  
*Food Technol* 1994 48 (6) 163  
Machine vision microscopy and magnetic resonance microscopy (Overview)
- Martin GJ// Address not available.  
*Analisis* 1994 22 (5) M3  
Analytical NMR in food science (Editorial)

- Schwedt G, Shi R, Stein K// Tech Univ Clausthal, Inst Anorgan & Analyt Chem, Paul Ernst Str 4, D-38670 Clausthal Zellerfeld, FRG  
*Deut Lebensmittel-Untersuch Fors* 1994 90 (6) 178  
FIA-system with urease-reactor for the determination of urea in food (German, English Abstract)

## 3 AMINO ACIDS, PROTEINS & ENZYMES

- Arnold U, Ludwig E\*, Kuhn R, Moschwitzer U// \*Dresden Univ Technol, Inst Food Chem & Tech Biochem, Mommsenstr 13, D-01062 Dresden, FRG  
*Z Lebensmittel-Untersuch Fors* 1994 199 (1) 22  
Analysis of free amino acids in green coffee beans. I. Determination of amino acids after precolumn derivatization using 9-fluorenylmethylchloroformate
- Aslam M, Jimenez-Flores R, Kim HY, Hurley WL// Univ Illinois, Dept Anim Sci, Urbana, Il 61801, USA  
*J Dairy Sci* 1994 77 (6) 1529  
Two-dimensional electrophoretic analysis of proteins of bovine mammary gland secretions collected during the dry period
- Belton PS, Gil AM// AFRC Inst Food Res, Norwich Lab, Norwich Res Pk, Colney, Norwich NR4 7UA, England  
*Biopolymers* 1994 34 (7) 957  
IR and Raman spectroscopic studies of the interaction of trehalose with hen egg white lysozyme
- Huang XL, Catignani GL, Swaisgood HE// \*Nth Carolina State Univ, Dept Food Sci, SE Dairy Foods Res Ctr, Raleigh, NC 27695, USA  
*J Agr Food Chem* 1994 42 (6) 1276  
Relative structural stabilities of  $\beta$ -lactoglobulins A and B as determined by proteolytic susceptibility and differential scanning calorimetry
- Kroll J, Helle N// Deutsch Inst Ernahrungsforsch Potsdam Rehbrücke, A Scheunert Allee 114-116, D-14558 Bergholz Rehbrück, FRG  
*Nahrung* 1994 38 (3) 336  
Mechanochemical degradation of proteins: ESR-spectroscopic investigations
- Onishi A, Proudlove MO// BRF Int, Nutfield RH1 4HY, Surrey, England  
*J Sci Food Agr* 1994 65 (2) 233  
Isolation of beer foam polypeptides by hydrophobic interaction chromatography and their partial characterisation
- Pawlowska M, Armstrong DW// \*Univ Missouri, Coll Arts & Sci, Dept Chem, 341 Schrenk Hall, Rolla, Mo 65401, USA  
*Chirality* 1994 6 (4) 270  
Evaluation of enantiomeric purity of selected amino acids in honey
- Rundlett KL, Armstrong DW// \*Univ Missouri, Coll Arts & Sci, Dept Chem, 341 Schrenk Hall, Rolla, Mo 65401, USA  
*Chirality* 1994 6 (4) 277  
Evaluation of free D-glutamate in processed foods
- Sondergaard I, Jensen K, Krath BN// Tech Univ Denmark, Dept Biochem & Nutr, Bldg 224, DK-2800 Lyngby, Denmark  
*Electrophoresis* 1994 15 (5) 584  
Classification of wheat varieties by isoelectric focusing patterns of gliadins and neural network
- Wang C, Ke B, Zhang HX, Zhou ZM, Wang J// Zhengzhou Grain Coll, Dept Food Engn, Zhengzhou 450052, Peoples Rep China  
*Seed Sci Technol* 1994 22 (1) 51  
Polyacrylamide gel electrophoresis of salt-soluble proteins for maize variety identification and genetic purity assessment
- Xie QS, Burnell GM// Natl Univ Ireland, Univ Coll Cork, Dept Zool, Cork, Rep Ireland  
*Comp Biochem Physiol Pt B* 1994 107 (4) 605  
Interference of  $Mg^{2+}$  and  $Ca^{2+}$  on protein determination with Lowry's method

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 & Processing 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.

Xie QS, Burnell GM// Natl Univ Ireland, Univ Coll Cork, Dept Zool, Cork, Rep Ireland  
*Comp Biochem Physiol Pt B* 1994 107 (4) 609  
 Determination of haemolymph protein in Manila clam (*Ruditapes philippinarum*) by Lowry's method

## 4 CARBOHYDRATES

Frias J, Hedley CL, Price KR, Fenwick GR, Vidal-Valverde C// CSIC, Inst Fermentac Ind, Juan Cierva 3, E-28006 Madrid, Spain  
*J Liq Chromatogr* 1994 17 (11) 2469

Improved methods of oligosaccharide analysis for genetic studies of legume seeds

Indyk HE, Woollard DC// Anchor Prod, POB 7, Waitoa, New Zealand  
*Analyst* 1994 119 (3) 397

Determination of free myo-inositol in milk and infant formula by high-performance liquid chromatography

Novekova M, Copikova J, Liskova S// Address not available.

*Listy Cukrov* 1994 110 (6) 169

Outline of methods for determination of crystal sugar moisture (Czech, English Abstract)

## 5 LIPIDS

Adhikari C, Proctor A\*, Blyholder GD// \*Univ Arkansas, Dept Food Sci, Fayetteville, Ar 72703, USA

*J Amer Oil Chem Soc* 1994 71 (6) 589

Diffuse reflectance Fourier-transform infrared spectroscopy of vegetable oil triglyceride adsorption on silicic acid

Aubert-Mammou C, Farines M, Soulier J\*\* \*Univ Perpignan, Chim Organ Subst Nat Lab, 52 Ave Villeneuve, F-66860 Perpignan, France

*Rev Fr Corps Gras* 1994 41 (3-4) 73

Identification of minor components of *Sisymbrium* oil by NMR (French, English Abstract)

Balsells M, Bota E\*, Clotet R, Suque M// \*Escola Super Agr Barcelona, Dept Ind Agroalimentaries, C C Urgell 187, E-08036 Barcelona, Spain

*Grasas Aceites* 1993 44 (6) 357

Detection of lard in a complex dehydrated stock

Brossard N, Pachiaudi C, Croset M, Normand S, Lecerf J, Chirouze V, Riou JP, Tayot JL, Lagarde M// Inst Natl Sci Appl, INSERM, U352, Unite Chim Biol, Villeurbanne, France

*Anal Biochem* 1994 220 (1) 192

Stable isotope tracer and gas-chromatography combustion isotope ratio mass spectrometry to study the *in vivo* compartmental metabolism of docosa-hexaenoic acid

Craig WY, Poulin SE, Nelson CP, Ritchie RF// Fdn Blood Res, POB 190, Scarborough, Me 04070, USA

*Clin Chem* 1994 40 (6) 882

ELISA of IgG antibody to oxidized low-density lipoprotein: Effects of blocking buffer and method of data expression

Gordon MH, Mursi E// Univ Reading, Dept Food Sci & Technol, POB 226, Reading RG6 2AP, England

*J Amer Oil Chem Soc* 1994 71 (6) 649

A comparison of oil stability based on the Metrohm Rancimat with storage at 20°C

Haneklaus S, Murray F, Schnug E// Fed Agr Res Ctr, Inst Plant Nutr & Soil Sci, Bundesallee 50, D-38116 Braunschweig, FRG

*Fett Wiss Technol* 1994 96 (6) 204

Application of low resolution energy dispersive X-ray fluorescence spectroscopy to total glucosinolate determination in rapeseed

Juameda P, Sebedio JL, Christie WW// INRA, Rech Qual Aliments Homme Stn, Unite Nutr Lipid, 17 rue Sully, F-21034 Dijon, France

*J High Res Chromatogr* 1994 17 (5) 321

Complete separation of the geometrical isomers of linolenic acid by high performance liquid chromatography with a silver ion column

Kheifets GM, Alekseeva EM// Russian Acad Med Sci, Inst Exptl Med, St Petersburg, Russia

*J Anal Chem-Engl Tr* 1994 49 (3) 277

Gas-chromatographic microanalysis of blood plasma cholesteryl esters

Kondruweit S, Dremel BAA, Schmid RD// Max Planck Inst Biophys, Biophys Chem Abt, Kennedyallee 70, D-60596 Frankfurt, FRG

*Anal Lett* 1994 27 (8) 1489

A new chemiluminometric method for the determination of glycerol in wine by flow injection analyses with immobilized glycerol dehydrogenase in combination with NADH oxidase

Lageot C, Bianchini JP, Gaydou EM, Ralaimanarivo A// Fac Sci & Tech St Jerome, Aromes & Oenol Lab, F-13397 Marseille 13, France

*Rev Fr Corps Gras* 1994 41 (3-4) 81

Cyclopropanoic fatty acids: Position of their ring by GC-MS (French, English Abstract)

Lamberto M, Ackman RG\*\* \*Tech Univ Nova Scotia, Canadian Inst Fisheries Technol, Box 1000, Halifax, Nova Scotia, Canada B3J 2X4

*Lipids* 1994 29 (6) 441

Confirmation by gas chromatography mass spectrometry of two unusual *trans*-3-monoethylenic fatty acids from the Nova Scotia seaweeds *Palmaria palmata* and *Chondrus crispus*

Leonhardt W, Pietzsch J, Nitzsche S// Tech Univ Dresden, Fac Med, Internal Med Clin, Dept Metab Dis, Fetscherstr 74, D-01307 Dresden, FRG

*Clin Chim Acta* 1994 224 (1) 21

Very-fast ultracentrifugation of human plasma lipoproteins: Influence of the centrifugal field on lipoprotein composition

Marai L, Kuksis A\*, Myher JJ// \*Univ Toronto, Banting & Best Dept Med Res, 112 Coll St, Toronto, Ontario, Canada M5G 1L6

*J Chromatogr A* 1994 672 (1-2) 87

Reversed-phase liquid chromatography-mass spectrometry of the uncommon triacylglycerol structures generated by randomization of butteroil

Marx F, Classen E// Univ Bonn, Inst Lebensmittelwissenschaft & Lebensmittelchem, Endenicher Allee 11-13, D-53115 Bonn, FRG

*Fett Wiss Technol* 1994 96 (6) 207

Analysis of epoxy fatty acids by GC-MS of their 4,4-dimethylloxazoline derivatives

Rodriguez-Palmero M, De la Presa-Owens S, Castellote-Bargallo AI, Lopez-Sabater MC\*, Rivero-Urgell M, De la Torre-Boronat MC// \*Univ Barcelona, Fac Farm, Dept Ciencies Fisiol & Nutr, Unitat Nutr & Bromatol, C Nicaragua 60-62, E-08029 Barcelona, Spain

*J Chromatogr A* 1994 672 (1-2) 267

Determination of sterol content in different food samples by capillary gas chromatography

Schwaiger I, Vojir F// Bundesanstalt Lebensmitteluntersuch & Forsch, Kinderspitalgasse 15, A-1090 Vienna, Austria

*Deut Lebensm-Rundsch* 1994 90 (5) 143

Application of multivariate statistical methods to the authenticity control of edible plant oils (German, English Abstract)

Smith RM, Cocks S// Loughborough Univ Technol, Dept Chem, Loughborough LE11 3TU, England

*Analyst* 1994 119 (5) 921

Separation of saturated and unsaturated fatty acid methyl esters by supercritical fluid chromatography on a silica column

Stoll U// Hannover Med Sch, Inst Physiol Chem, Org Nr 4310, Postfach 610180, Konstanty Gutschow Str 8, D-30625 Hannover, FRG

*Fett Wiss Technol* 1994 96 (5) 188

Techniques of phospholipid analyses applied to sera and egg yolk (German, English Abstract)

Stoll U// Address as above

*Fett Wiss Technol* 1994 96 (6) 199

The characterization of fats by fractionation of triglycerides according to their polarity (German, English Abstract)

Vicanova J, Tvrzicka E\*, Stulik K// \*Charles Univ, Fac Nat Sci, Dept Analyt Chem, Prague, Czech Rep

*J Chromatogr B-Bio Med Appl* 1994 656 (1) 45

Capillary gas chromatography of underivatized fatty acids with a free fatty acid phase column and a programmed temperature vaporizer injector

Wahl HG, Liebich HM, Hoffmann A// Univ Tubingen, Med Klin, D-72076 Tubingen, FRG

*J High Res Chromatogr* 1994 17 (5) 308

Identification of fatty acid methyl esters as minor components of fish oil by multidimensional GC-MSD: New furan fatty acids

Wegmuller F// Kantonaes Labor ZH, Fehrestr 15, CH-8030 Zurich, Switzerland

*Z Lebensmittel-Untersuch Fors* 1994 199 (1) 51

Polar components of frying fats derived from data of dielectric measurements

## 6 VITAMINS & CO-FACTORS

Abidi SL, Mounts TL// USDA ARS, Natl Ctr Agr Utilizat Res, 1815 Nth Univ St, Peoria, Il 61604, USA

*J Chromatogr A* 1994 670 (1-2) 67

Separations of tocopherols and methylated tococls on cyclodextrin-bonded silica

Adachi T, Nishio M, Yunoki N, Ito Y, Hayashi H// Taisho Pharmaceut Co Ltd, Res Ctr, Dept Pharmaceut, Omiya, Saitama 330, Japan

*Anal Sci* 1994 10 (3) 457

Determination of vitamins D<sub>3</sub> and D<sub>2</sub> in multi-vitamin tablets by high-performance liquid chromatography atmospheric pressure chemical ionization mass spectrometry

Behrens WA, Madere R// Banting Res Ctr, Bur Nutr Sci, Ottawa, Ontario, Canada K1A 1L2

*J Liq Chromatogr* 1994 17 (11) 2445

A procedure for the separation and quantitative analysis of ascorbic acid, dehydroascorbic acid, isoascorbic acid, and dehydroisoascorbic acid in food and animal tissue

Greenway GM, Kometa N// Univ Hull, Sch Chem, Hull HU6 7RX, England

*Analyst* 1994 119 (5) 929

On-line sample preparation for the determination of riboflavin and flavin mononucleotides in foodstuffs

Guiso G, Rambaldi A, Dimitrova B, Biondi A, Caccia S// \*Madrio Negri Inst Pharmacol Res, via Eritrea 62, I-20157 Milan, Italy

*J Chromatogr B-Bio Med Appl* 1994 656 (1) 239

Determination of orally administered all-*trans*-retinoic acid in human plasma by high-performance liquid chromatography

McDiarmid RE, Majak W, Cheng KJ// Agr & Agri Food Canada, Range Stn, 3015 Ord Rd, Kamloops, Brit Columbia, Canada V2B 8A9

*Can J Anim Sci* 1994 74 (2) 391

Procedure for analysis of  $\alpha$ -tocopherol acetate in bovine ruminal fluid

Moussa F, Depasse F, Lompert V, Hautem JY, Girardet JP, Fontaine JL, Aymerand P// Fac Pharm Tours, Chim Analyt Serv, 2 Bis Blvd Tonnelle, F-37042 Tours, France

*J Chromatogr A* 1994 664 (2) 189

Determination of phyloquinone in intravenous fat emulsions and soybean oil by high-performance liquid chromatography

Panfili G, Manzi P, Pizzoferrato L// Univ Molise, DISTAAM, via Tiberio 21, I-861000 Campobasso, Italy

*Analyst* 1994 119 (6) 1161

High-performance liquid chromatographic method for the simultaneous determination of tocopherols, carotenes, and retinol and its geometric isomers in Italian cheeses

Perez-Ruiz T, Martinez-Lozano C, Tomas V, Val O// Univ Murcia, Fac Chem, Dept Analyt Chem, E-30071 Murcia, Spain

*Analyst* 1994 119 (6) 1199

Photochemical spectrophotometric determination of riboflavin and riboflavin 5'-phosphate by manual and flow injection methods

Pfander H, Riesen R, Niggli U// Univ Bern, Inst Organ Chem, Freiestr 3, CH-3012 Bern, Switzerland

*Pure Appl Chem* 1994 66 (5) 947

HPLC and SFC of carotenoids: Scope and limitations

Yeung B, Vouros P, Reddy G// Northeastern Univ, Dept Chem, 102 Hurtig Hall, Boston, Ma 02115, USA

*Amer Lab* 1994 26 (11) 12

Derivatization of vitamin D metabolites for analysis by capillary HPLC tandem mass spectrometry

## 7 TRACE ELEMENTS & MINERALS

Arnaud J, Prual A, Preziosi P, Favier A, Hercberg S// CHR Univ Grenoble, Biochim Lab C, BP 217, F-38043, Grenoble 9, France

*J Trace Elem Electr Hlth Dis* 1993 7 (4) 199

Selenium determination in human milk in Niger: Influence of maternal status

Arruda MAZ, Gallego M, Valcarcel M// \*Univ Cordoba, Fac Sci, Dept Analyt Chem, E-14004 Cordoba, Spain

*J Anal Atom Spectrom* 1994 9 (5) 657

Determination of selenium in fruit juices by flow injection electrothermal atomization atomic absorption spectrometry

Bagur G, Sanchez M\*, Gazquez D// \*Univ Granada, Fac Sci, Dept Analyt Chem, E-18071 Granada, Spain

*Analyst* 1994 119 (6) 1157

Determination of vanadium in clam tissue (*Citorea* sp.) by normal-phase high-performance liquid chromatography with *N*-phenylbenzohydroxamic acid

Berglund M, Lind B, Lannero E, Vahter M// Karolinska Inst, Inst Environm Med, Box 210, S-17177 Stockholm, Sweden

*Arch Environ Contam Toxicol* 1994 27 (2) 281

A pilot study of lead and cadmium exposure in young children in Stockholm, Sweden: Methodological considerations using capillary blood microsampling

Blatny P, Kvasnicka F// Inst Chem Technol, Dept Carbohydrate Chem & Technol, Technicka 5, CR-16628 Prague, Czech Rep

*J Chromatogr A* 1994 670 (1-2) 223

Determination of fluoride in feed mixtures by capillary isotachopheresis

Buchberger W, Winna K, Turner M// Johannes Kepler Univ, Dept Analyt Chem, A-4040 Linz, Austria

*J Chromatogr A* 1994 671 (1-2) 375

Applications of capillary zone electrophoresis in clinical chemistry determination of low-molecular-mass ions in body fluids

Feldman BJ, Osterloh JD, Hata BH, D'Alessandro A// Univ Calif San Francisco, San Francisco Gen Hosp, Metals Lab, Ward 35, 1001 Potrero Ave, San Francisco, Ca 94110, USA

*Anal Chem* 1994 66 (13) 1983

Determination of lead in blood by square wave anodic stripping voltammetry at a carbon disk ultramicroelectrode

Guskova VP, Sizova LS// Kemerovo Technol Inst, Food Ind, Kemerovo, Russia

*J Anal Chem-Engl Tr* 1994 49 (2) 214

Potentiometric determination of chlorides in milk and dairy products with an ion-selective electrode

Heitkemper DT, Kaine LA, Jackson DS, Wolnik KA// US FDA, Natl Forens Chem Ctr, Cincinnati, Oh 45202, USA

*J Chromatogr A* 1994 671 (1-2) 101

Practical applications of element-specific detection by inductively coupled plasma atomic emission spectroscopy and inductively coupled plasma mass spectrometry to ion chromatography of foods

Hoshi M, Yamamoto M, Kawamura H, Shinohara K, Shibata Y, Kozlenko MT, Takatsuji T, Yamashita S, Namba H, Yokoyama N *et al*// Hiroshima Univ, Nucl Med & Biol Res Inst, 2-3 Kasumi 1-chome, Hiroshima 734, Japan

*Health Phys* 1994 67 (2) 187

Fallout radioactivity in soil and food samples in the Ukraine: Measurements of iodine, plutonium, cesium, and strontium isotopes

Hunt J// Hort Res Int, Warwick CV35 9EF, England

*Food Addit Contam* 1994 11 (3) 317

A method for measuring nitrite in fresh vegetables

Ikebe K, Nishimune T, Sueki K// Osaka Prefectural Inst Publ Hlth, 1-3-69 Nakamichi, Higashinari ku, Osaka 537, Japan

*J Food Hyg Soc Jpn* 1994 35 (3) 323

Contents of 17 metal elements in food determined by inductively coupled plasma atomic emission spectrometry: Meat and meat products (Japanese, English Abstract)

Johansson CG// Address not available.

*J Inst Brew* 1994 100 (4) 255

Determination of aluminium in beer by GF-AAS

Kuwahira H, Asai Y// Snow Brand Milk Prod Co Ltd, Dept Qual Assurance, Food Res Lab, 1-1-2 Minamidai, Kawagoe, Saitama 350, Japan

*J Food Hyg Soc Jpn* 1994 35 (3) 253

Determination of iodine in foods by high-performance liquid chromatography with electrochemical detection (Japanese, English Abstract)

Langehesse K, Dunemann L\*, Schwedt G// \*Heinrich Heine Univ Dusseldorf, Med Inst Umwelthyg, Analyt Chem Abt, Auf Hennekamp 50, D-40225 Dusseldorf, FRG

*Fresenius J Anal Chem* 1994 349 (6) 460

Properties and binding forms of cadmium and nickel in protein extracts from bean seeds (*Phaseolus vulgaris* L)

Matejovic I, Bielikova M// Res Inst Plant Prod, Bratislavská Cesta 122, CS-92168 Piestany, Slovak Rep

*Fresenius J Anal Chem* 1994 349 (7) 559

Evaluation of the isotachopheretic determination of nitrates and sulfates in plant materials

Mittal R, Allawadhi KL, Sood BS// Punjabi Univ, Nucl Sci Labs, Patiala 147002, Punjab, India

*Indian J Agr Sci* 1994 64 (7) 476

Analysis of potato (*Solanum tuberosum*) cultivars for their potassium content using X-ray fluorescence technique

Morita H, Kita T, Umeno M, Morita M, Yoshinaga J, Okamoto K// Univ Tokushima, Sch Med Sci, 3-18-15 Kuramoto cho, Tokushima 770, Japan

*Sci Total Envir* 1994 151 (1) 9

Analysis of serum elements and the contaminations from devices used for serum preparation by inductively coupled plasma mass spectrometry

Patriarca M, Menditto A, Muran A, Morisi G// 1st Super Sanita, Biochim Clin Lab, Viale Regina Elena 299, I-00161 Rome, Italy

*J Trace Elem Electr Hlth Dis* 1993 7 (4) 257

The quality of analytical determinations of copper and zinc in serum. A collaborative study in a sample of Italian laboratories

Quevauviller P, Kramer GN, Griepink B// Commiss European Communities, Measurement & Testing Programme, rue Loi 200, B-1049 Brussels, Belgium

*Mikrochim Acta* 1994 113 (3-6) 381

Certification of the mass fractions of Ca, Cu, Cl, I, Fe, K, Mg, P, Pb, N, Na and Zn in skim milk powder

- Schmitt Y, Haug M, Kruse-Jarres JD// Stadt Kliniken, Inst Lab Med, Grafenstr 9, D-64283 Darmstadt, FRG  
*J Trace Elem Electr Hlth Dis* 1993 7 (4) 223  
Determination of the trace elements zinc, copper, nickel and chromium in bone marrow and plasma of patients with non-Hodgkin lymphomas
- Shibata Y, Yoshinaga J, Morita M// Natl Inst Environm Studies, Div Environm Chem, 16-2 Onogawa, Yatabe, Ibaraki 305, Japan  
*Appl Organometal Chem* 1994 8 (3) 249  
Detection of arsenobetaine in human blood
- Singh V, Garg AN// \*Nagpur Univ, Dept Chem, Nagpur 440010 Maharashtra, India  
*Analyst* 1994 119 (6) 1417  
Sub-stoichiometric isotope dilution analysis method for the determination of iodine in common salts using <sup>131</sup>I tracer
- Templeton DM// Univ Toronto, Dept Clin Biochem, 100 Coll St, Toronto, Ontario, Canada M5G 1L5  
*Pure Appl Chem* 1994 66 (2) 357  
Measurement of total nickel in body fluids: Electrothermal atomic absorption methods and sources of preanalytical variation
- Tiran B, Tiran A, Rossipal E, Lorenz O// Graz Univ, Inst Med Biochem, Har-rachgasse 21-III, A-8010 Graz, Austria  
*J Trace Elem Electr Hlth Dis* 1993 7 (4) 211  
Simple decomposition procedure for determination of selenium in whole blood, serum and urine by hydride generation atomic absorption spectroscopy
- Vinas P, Campillo N, Lopez-Garcia I, Cordoba MH// \*Univ Murcia, Fac Chem, Dept Analyt Chem, E-30071 Murcia, Spain  
*Analyst* 1994 119 (6) 1119  
Slurry-electrothermal atomic absorption spectrometric methods for the determination of copper, lead, zinc, iron and chromium in sweets and chewing gum after partial dry ashing
- Vinas P, Campillo N, Lopez-Garcia I, Cordoba MH// \*Address as above.  
*Fresenius J Anal Chem* 1994 349 (4) 306  
Slurry procedures for the determination of cadmium and lead in cereal-based products using electrothermal atomic absorption spectrometry
- Yang JY, Yang MH, Lin TH// \*Kaohsiung Med Coll, Sch Technol Med Sci, Kaohsiung, Taiwan  
*Anal Sci* 1994 10 (3) 439  
Effect of wet decomposition methods on the determination of zinc and selenium in rice leaves and grains using electrophoresis
- Zhang RL, Shi HL, Ma YF// \*NE Missouri State Univ, Div Sci, Kirksville, Mo 63501, USA  
*J Microcolumn Sep* 1994 6 (3) 217  
Quantitative determination of ionized calcium and total calcium in human serum by capillary zone electrophoresis with indirect photometric detection
- chicken tissue by coupled high-performance liquid chromatography inductively coupled plasma mass spectrometry
- Debruyckere G, De Sagher R, Van Peteghem C, Van Vyncht G, Maghuin-Rogister G, De Pauw E// State Univ Ghent, Fac Pharmaceut Sci, Harelbekst 72, B-9000 Ghent, Belgium  
*Anal Chim Acta* 1994 291 (1-2) 155  
Gas chromatographic-mass spectrometric confirmation of a clostebol metabolite in urine
- Dreyfuss MF, Lotfi H, Marquet P, Debord J, Daguet JL, Lachatre G// Hop Univ Dupuytren, Serv Pharmacol & Toxicol, F-87042 Limoges, France  
*Analisis* 1994 22 (5) 273  
Pesticide residue determination in honey and apples by HPLC and GC
- Endoh YS, Takahashi Y, Hamamoto S, Ishihara Y, Nishikawa M, Nogawa H// Natl Vet Assay Lab, 1-15-1 Tokura, Kokubunji, Tokyo 185, Japan  
*J Food Hyg Soc Jpn* 1994 35 (3) 292  
Usefulness of enzyme immunoassay (EIA) as an analytical method of sulfamethoxazole residues in animal tissues (Japanese, English Abstract)
- Garden SW, Sporns P// \*Univ Alberta, Dept Food Sci & Nutr, Edmonton, Alberta, Canada T6G 2P5  
*J Agr Food Chem* 1994 42 (6) 1379  
Development and evaluation of an enzyme immunoassay for sulfamerazine in milk
- Haramaki Y, Sorimachi S, Horie M// Nihon Millipore Ltd, 1-3-12 Kitashinagawa, Shinagawa ku, Tokyo 140, Japan  
*J Food Hyg Soc Jpn* 1994 35 (3) 262  
HPLC simultaneous analysis of synthetic antibacterials in meat and fish with solid-phase extraction (Japanese, English Abstract)
- Henle T, Walter AW, Haessner R, Klostermeyer H// Tech Univ Munich, Lehrstuhl Milchwissensch, Vottinger Str 45, D-85350 Freising, FRG  
*Z Lebensmittel-Untersuch Fors* 1994 199 (1) 55  
Detection and identification of a protein-bound imidazolone resulting from the reaction of arginine residues and methylglyoxal
- Ibe FI, Blowers SD, Anderson D, Massey R// BIBRA Toxicol Int, Woodmansterne Rd, Carshalton SM5 4DS, Surrey, England  
*Food Addit Contam* 1994 11 (3) 403  
A method for the detection of protein-bound mutagens in food
- Jimenez JJ, Atienza J, Bernal JL, Toribio L// Agron Res Serv, Junta Castilla & Leon, POB 172, E-47080 Valladolid, Spain  
*Chromatographia* 1994 38 (5-6) 395  
Determination of carbendazime in lettuce samples by SFE-HPLC
- Kamakura K, Hsegawa M, Koiguchi S, Goto I, Shiraishi S, Hirata K, Yamana T, Tonogai Y// Ctr Inspect Imported Food & Infect Dis, Kobe Quarantine Stn, 1-1 Toyahama cho, Hyogo ku, Kobe 652, Japan  
*J Food Hyg Soc Jpn* 1994 35 (3) 310  
Detection and determination of tetracyclines in imported frozen shrimp by bioassay and HPLC (Japanese, English Abstract)
- Kofer J, Fuchs K// Amt Steiermark Landesregier, Tiergesundheitsdienst Fach-abt Veterinarwesen, Zimmerplatgasse 15, A-8010 Graz, Austria  
*Wien Tierarztl Monatsschr* 1994 81 (2) 33  
Monitoring on residues in meat. III. Pesticides in kidney fat (German, English Abstract)
- Koenecke A, Kreuzig R, Bahadir M\*, Siebers J, Nolting HG// \*Tech Univ Carolo Wilhelmina Braunschweig, Inst Ecol Chem & Waste Anal, Hagermring 30, D-38106 Braunschweig, FRG  
*Fresenius J Anal Chem* 1994 349 (4) 301  
Investigations on the substitution of dichloromethane in pesticide residue analysis of plant materials
- Lau OW, Wong SK, Leung KS// Chinese Univ Hong Kong, Dept Chem, Sha Tin, Hong Kong  
*Analyst* 1994 119 (5) 1037  
Naphthalene contamination of sterilized milk drinks contained in low-density polyethylene bottles. I.
- Linkerhagner M, Stan HJ// \*Tech Univ Berlin, Inst Food Chem, Gustav Meyer Allee 25, D-13355 Berlin, FRG  
*Z Lebensmittel-Untersuch Fors* 1994 198 (6) 473  
Screening analysis of pesticide residues in plant foodstuffs by capillary gas chromatography using the DFG multiresidue method S19: A comparison of customary detection by ECD/NPD with the novel atomic emission detector (AED)
- Mahedero MC, Salinas F, Jimenez-Arrabal M, Aaron J// Univ Extremadura, Fac Sci, Dept Analyt Chem, E-06071 Badajoz, Spain  
*Anal Lett* 1994 27 (8) 1543  
A new first-derivative photochemically-induced fluorescence spectrometric method for the determination of sulfapyridine in milk
- Miyata M, Kamakura K, Narita M, Hirahara Y, Okamoto K, Hasegawa M, Koiguchi S, Miyoshi T, Yamana T, Tonogai Y// Ctr Inspect Imported Foods &

## 8 DRUG, BIOCIDES & PROCESSING RESIDUES

- Infect Dis, Kobe Quarantine Stn, 1-1 Toyahama cho, Hyogo ku, Kobe 652, Japan  
*J Food Hyg Soc Jpn* 1994 35 (3) 276  
 Studies on systematic determination of organophosphorus, carbamate, organochlorine and pyrethroid pesticides in polished rice by gas chromatography (Japanese, English Abstract)
- Nakazato M, Saito K, Morozumi S, Wauke T, Ishikawa F, Fujinuma K, Moriyasu T, Nishima T, Tamura Y// Tokyo Metropolitan Res Lab Publ Hlth, 24-1 Hyakunin cho 3 chome, Shinjuku ku, Tokyo 169, Japan  
*Jpn J Toxicol Environ Health* 1994 40 (2) 203  
 Determination of putrefactive non-volatile amines in foods following sample cleanup by solid phase extraction (Japanese, English Abstract)
- Nukaya H, Koyota S, Jinno F, Ishida H, Wakabayashi K, Kurosaka R, Kim IS, Yamaizumi Z, Ushiyama H, Sugimura T, Nagao M, Tsuji K// Univ Shizuoka, Sch Pharmaceut Sci, 52-1 Yada, Shizuoka 422, Japan  
*Carcinogenesis* 1994 15 (6) 1151  
 Structural determination of a new mutagenic heterocyclic amine, 2-amino-1,7,9-trimethylimidazo [4,5-g]quinoxaline (7,9-DiMeIQx), present in beef extract
- Okihashi M, Obana H, Hori S, Nishimune T// Osaka Prefectural Inst Publ Hlth, 1-3-69, Nakamichi, Higashinari ku, Osaka 537, Japan  
*J Food Hyg Soc Jpn* 1994 35 (3) 258  
 Development of simultaneous analysis for organonitrogen and pyrethroid pesticides with GC/MS (Japanese, English Abstract)
- Schreiber GA, Leffke A, Mager M, Helle N, Bogl KW// Fed Hlth Off, Inst Social Med & Epidemiol, Irradiat Food & Pharmaceut Alternat Tech Lab Grp, D-12101 Berlin, FRG  
*Radiat Phys Chem* 1994 44 (5) 467  
 Viscosity of alkaline suspensions of ground black and white pepper samples: An indication or an identification of high dose radiation treatment?
- Schreiber GA, Ziegelmann B, Quitzsch G, Helle N, Bogl KW, Delincee H// BGA, Fed Hlth Off, Alternat Tech Inst Social Med & Epidemiol, Irradiat Foods & Pharmaceut, D-12101 Berlin, FRG  
*Food Struct* 1993 12 (4) 385  
 Luminescence techniques to identify the treatment of foods by ionizing radiation
- Stewart EM, Stevenson MH\*, Gray R// \*Queens Univ Belfast, Dept Food Sci, Belfast BT9 5PX, Northern Ireland  
*J Sci Food Agr* 1994 65 (2) 191  
 Use of ESR spectroscopy for the detection of irradiated crustacea
- Tabner BJ, Tabner VA// Univ Lancaster, Inst Environm & Biol Sci, Div Environm Sci, Lancaster LA1 4YQ, England  
*Int J Food Sci Technol* 1994 29 (2) 143  
 Electron spin resonance spectra of  $\gamma$ -irradiated citrus fruit skins, skin components and stalks
- Tamura H, Yotoriyama M, Kurosaki K, Shinohara N// Tochigi Prefectural Inst Publ Hlth, Div Food, 4-9-7 Yonan, Utsunomiya, Tochigi 320, Japan  
*J Food Hyg Soc Jpn* 1994 35 (3) 271  
 High-performance liquid chromatographic analysis of sulfonamides in livestock products using matrix solid-phase dispersion (MSPD) method with silica gel (Japanese, English Abstract)
- Tsuchiya H, Ohtani S, Yamaha K, Akagiri M, Takagi N, Sato M// Asahi Univ, Sch Dent, Dept Dent Pharmacol, Hozumi, Gifu 50102, Japan  
*Analyst* 1994 119 (6) 1413  
 Determination of formaldehyde in reagents and beverages using flow injection
- Valladao M, Sandine WE// Oregon State Univ, Dept Microbiol, Corvallis, Or 97331, USA  
*J Dairy Sci* 1994 77 (6) 1509  
 Quaternary ammonium compounds in milk: Detection by reverse-phase high-performance liquid chromatography and their effect on starter growth
- Zheng M, Liu HY, Hall SF, Kitts DD, McErlane KM\*// \*Univ British Columbia, Fac Pharmaceut Sci, Vancouver, Brit Columbia, Canada V6T 1Z3  
*J Chromatogr A* 1994 670 (1-2) 77  
 High-performance liquid chromatographic analysis of Romet 30 in Chinook salmon (*Oncorhynchus tshawytscha*): Wash-out time, tissue distribution in muscle, liver and skin, and metabolism of sulfadimethoxine
- 9 TOXINS**
- Bosch H, Tessin N, Bellmer HG, Bassler HMS// Deutsch Brauwirtschaft eV, Wissenssch Forderung, Postf 200452, D-55134 Bonn, FRG  
*Monatsschr Brauwissen* 1994 47 (6) 196  
 Examination of the suitability of enzyme-immunoassays (ELISA) for mycotoxin analysis in the brewing industry (German, English Abstract)
- Ellis HJ, Doyle AP, Day P, Wieser H, Ciclitira PJ\*// \*St Thomas Hosp, Rayne Inst, Lambeth Palace Rd, London SE1 7EH, England  
*Int Arch Allergy Immunol* 1994 104 (3) 308  
 Demonstration of the presence of coeliac-activating gliadin-like epitopes in malted barley
- Franken J, Stephan U, Meyer HE, Konig W// Ruhr Univ Bochum, AG Infektabwehr, Inst Med Mikrobiol & Immunol, Univ Str 150, D-44801 Bochum, FRG  
*Int Arch Allergy Immunol* 1994 104 (2) 171  
 Identification of  $\alpha$ -amylase inhibitor as a major allergen of wheat flour
- Guevremont R, Quigley MN\*, Reto AS// \*Cornell Univ, Dept Soil Crop & Atmospher Sci, Bradfield & Emerson Halls, Ithaca, NY 14853, USA  
*Analyst* 1994 119 (6) 1337  
 Recovery of saxitoxin from solution by coprecipitation with hydrated iron(III) oxide
- Hill NS, Agee CS// Univ Georgia, Dept Crop & Soil Sci, Athens, Ga 30602, USA  
*Crop Sci* 1994 34 (2) 530  
 Detection of ergoline alkaloids in endophyte-infected tall fescue by immunoassay
- Jordan L, Hansen TJ, Zabe NA// Zymark Corp, Zymark Ctr, Hopkinton, Ma 01748, USA  
*Amer Lab* 1994 26 (5) 18  
 Automated mycotoxin analysis
- Louzao MC, Alfonso A, Cabado AG, Botana AM\*, Goenaga X, Vieytes MR, Botana LM// \*Fac Quim Santiago de Compostela, Dept Quim Anal, E-15706 Santiago de Compostela, Spain  
*Fresenius J Anal Chem* 1994 349 (6) 465  
 Study of the stability of gonyautoxins in acidic solution
- Madhyastha MS, Rarquardt RR, Frohlich AA, Borsa J// Univ Manitoba, Dept Anim Sci, Winnipeg, Manitoba, Canada R3T 2N2  
*J Food Protect* 1994 57 (6) 490  
 Optimization of yeast bioassay for trichothecene mycotoxins
- Rice LG, Ross PF// USDA, Natl Vet Serv Labs, Vet Serv, Animal & Plant Hlth Inspec Serv, Ames, Ia 50010, USA  
*J Food Protect* 1994 57 (6) 536  
 Methods for detection and quantitation of fumonisins in corn, cereal products and animal excreta
- Takino M, Yamaguchi K// Yokogawa Analyt Syst Inc, Kinryo Bldg, 3-3-11 Niitaka, Yodogawa ku, Osaka 532, Japan  
*J Food Hyg Soc Jpn* 1994 35 (3) 244  
 Analysis of trichothecene mycotoxins by gas chromatography-mass spectrometry with electric pressure control splitless injection (Japanese, English Abstract)
- Usleber E, Dietrich R, Martlbauer E, Terplan G// Univ Munich, Fac Vet, Lehrstuhl Hyg & Technol, Schellingstr 10-III, D-80799 Munich, FRG  
*Leit Appl Microbiol* 1994 18 (6) 337  
 Effect of heterologous paralytic shellfish poisoning toxin-enzyme conjugates on the cross-reactivity of a saxitoxin enzyme immunoassay
- Usleber E, Straka M, Terplan G// Univ Munich, Fac Vet, Inst Hyg & Technol Food Anim Origin, Lehrstuhl Hyg & Technol Milch, D-80799 Munich, FRG  
*J Agr Food Chem* 1994 42 (6) 1392  
 Enzyme immunoassay for fumonisin B1 applied to corn-based food
- 10 ADDITIVES**
- Baldo MA, Daniele S\*, Mazzocchin GA// \*Univ Venice, Dept Phys Chem, Calle Larga S Marta 2137, I-30123 Venice, Italy  
*Analyst* 1994 119 (6) 1239  
 Voltammetric determination of free sulfur dioxide in wines using platinum and gold disc microelectrodes
- Brosio E, Dubaldo A, Verzegnassi B// Univ Roma La Sapienza, Dipt Chim, P A Moro 5, I-00185 Rome, Italy  
*Cell Mol Biol* 1994 40 (4) 569  
 Pulsed field gradient spin-echo NMR measurement of water diffusion coefficient in thickening and gelling agents: Guar galactomannan solutions and pectin gels
- Burini G// Univ Perugia, Fac Farm, Ist Sci Alimentaz, I-06100 Perugia, Italy  
*J Chromatogr A* 1994 664 (2) 213  
 Determination of the alkyl esters of *p*-hydroxybenzoic acid in mayonnaise by high-performance liquid chromatography and fluorescence labelling
- Ferreira VLP, Fernandes SV, Yotsuyanagi K// Inst Tecnol Alimentos, Campinas, SP, Brazil  
*Rev Espan Cien Tecnol Aliment* 1994 34 (3) 311  
 The colour of chicken and pork meat loaf with added cured bovine blood as evaluated by the Rab, Hunter lab, L\* A\* B\* and XYZ-CIE systems
- Heitkemper DT, Jackson DS, Kaine LA, Mulligan KA, Wolnik KA// Natl Forens Chem Ctr, US FDA, 1141 Cent Pkwy, Cincinnati, Oh 45202, USA

- J Chromatogr A* 1994 **671** (1-2) 323  
Determination of saccharin in shrimp by ion chromatography and capillary gas chromatography-mass spectrometry
- Le Cerf D, Muller G// Univ Rouen, Fac Sci, CNRS URA 500, F-76821 Mont St Aignan, France  
*Carbohydr Polym* 1994 **23** (4) 241  
Mechanical spectroscopy of karaya gum-alginate mixed dispersions
- Scotter MJ, Thorpe SA, Reynolds SL, Wilson LA, Strutt PR// MAFF Food Safety Directorate, Food Sci Lab, Norwich Res Pk, Norwich NR4 7UQ, England  
*Food Addit Contam* 1994 **11** (3) 301  
Characterization of the principal colouring components of annatto using high-performance liquid chromatography with photodiode-array detection
- Thanh NTK, Decnop-Weever LG, Kok WT\*// \*Univ Amsterdam, Analyt Chem Lab, Nieuwe Achtergracht 166, 1018 WV Amsterdam, The Netherlands  
*Fresenius J Anal Chem* 1994 **349** (6) 469  
Determination of sulphite in wine by flow injection analysis with indirect electrochemical detection
- Williams C, Patel I, Willer CJ, Crosby NT// Lab Govt Chemist, Queens Rd, Teddington TW11 0LY, Middx, England  
*Analyst* 1994 **119** (3) 427  
Competitive enzyme-linked immunosorbent assay for the determination of zinc bacitracin in animal feedstuffs

## 11 FLAVOURS & AROMAS

- Breas O, Fourel F\*, Martin GJ// \*Eurofins, Site Gerardi, CP 4001, F-44073 Nantes 03, France  
*Analyst* 1994 **22** (5) 268  
<sup>13</sup>C analysis of aromas and perfumes by a coupled GC-IRMS technique: The case of vanillin and leaf alcohol extracts
- Buchbauer G, Jirovetz L, Wasicky M, Herlitschka A, Nikiforov A// Univ Vienna, Inst Pharmazeut Chem, Wahringerstr 10, A-1090 Vienna, Austria  
*Z Lebensmittel-Untersuch Fors* 1994 **199** (1) 1  
Aroma of white vine blossoms: Correlation of sensoric data with headspace constituents (German, English Abstract)
- Careri M, Manini P, Spagnoli S, Barbieri G, Bolzoni L// Univ Parma, Dipt Chim Gen & Inorgan Chim Analit Chim Fis, Viale Sci, I-43100 Parma, Italy  
*Chromatographia* 1994 **38** (5-6) 386  
Simultaneous distillation-extraction and dynamic headspace methods in the gas chromatographic analysis of parmesan cheese volatiles
- Chouchi D, Barth D\*// \*Ecole Natl Super Ind Chem, Equipe Fluides Supercrit, Thermodynam & Chim Appl Lab, F-54001 Nancy, France  
*J Chromatogr A* 1994 **672** (1-2) 177  
Rapid identification of some coumarin derivatives in detersinated citrus peel oil by gas chromatography
- Ehlers D, Pfister M, Bartholomae S// Fachsch Berlin, Fachbereich Lebensmitteltechnol & Verpackungstech, Fachgebiet Lebensmittelchem, D-10785 Berlin, FRG  
*Z Lebensmittel-Untersuch Fors* 1994 **199** (1) 38  
Analysis of Tahiti vanilla by high-performance liquid chromatography
- Ellekjaer MR, Isaksson T, Solheim R// MATFORSK, Norwegian Food Res Inst, Osloveien 1, N-1430, As, Norway  
*J Food Sci* 1994 **59** (3) 456  
Assessment of sensory quality of meat sausages using near infrared spectroscopy
- Furtula V, Nakai S, Amantea GF, Laleye L// Univ British Columbia, Dept Food Sci, 6650 NW Marine Dr, Vancouver, Brit Columbia, Canada V6T 1Z4  
*J Food Sci* 1994 **59** (3) 528  
Reverse-phase HPLC analysis of cheese samples aged by a fast-ripening process
- Furtula V, Nakai S, Amantea GF, Laleye L// Address as above.  
*J Food Sci* 1994 **59** (3) 533  
Reverse phase HPLC analysis of reference cheddar cheese samples for assessing accelerated cheese ripening
- Girard B, Nakai S// Agr Canada, Res Stn, 4200 Hwy 97, Summerland, Brit Columbia, Canada V0H 1Z0  
*J Food Sci* 1994 **59** (3) 507  
Grade classification of canned pink salmon with static headspace volatile patterns
- Grigoryeva DN, Golovnya RV, Syomina LA// Russian Acad Sci, Inst Food Subst, Flavour Res Lab, Vavilova Str 28, GSP-1, Moscow 117813, Russia  
*Nahrung* 1994 **38** (3) 295  
Profile-rank method for the quality evaluation of meat flavours
- Hildrum KI, Mielnik M, Naes T// MATFORSK, Norwegian Food Res Inst,

- Osloveien 1, N-1430, As, Norway  
*Meat Sci* 1994 **38** (1) 67  
Prediction of sensory characteristics of beef by near-infrared spectroscopy
- Imhof R, Bosset JO\*// \*Fed Dairy Res Inst, CH-3097 Liebefeld, Switzerland  
*Food Sci Technol-Lebensm Wiss* 1994 **27** (3) 265  
Quantitative GC-MS analysis of volatile flavour compounds in pasteurized milk and fermented milk products applying a standard addition method
- Konig WA, Rieck A, Hardt I, Gehrcke B, Kubeczka KH, Muhle H// Univ Hamburg, Inst Organ Chem, D-20146 Hamburg, FRG  
*J High Res Chromatogr* 1994 **17** (5) 315  
Enantiomeric composition of the chiral constituents of essential oils. II. Sesquiterpene hydrocarbons
- Mondello L, Bartle KD, Dugo G, Dugo P// Univ Leeds, Sch Chem, Leeds LS2 9JT, England  
*J High Res Chromatogr* 1994 **17** (5) 312  
Automated HPLC-IRGC: A powerful method for essential oil analysis. III. Aliphatic and terpene aldehydes of orange oil
- Mondello L, Bartle KD, Dugo P, Gans P, Dugo G// Univ Leeds, Sch Chem, Leeds LS2 9JT, England  
*J Microcolumn Sep* 1994 **6** (3) 237  
Automated LC-GC: A powerful method for essential oils analysis. IV. Coupled LC-GC-MS (ITD) for Bergamot oil analysis
- Pino J, Villarreal A, Roncal E// Food Ind Res Inst IIIA, Carretera Guatao km 3 1.2, Havana 19200, Cuba  
*Nahrung* 1994 **38** (3) 307  
Comparison of extraction methods for the isolation of volatile compounds from distilled alcoholic beverages
- Rapp A, Yavas I, Hastrich H// Bundesanstalt Zuchtungsforsch Kulturpflanzen, Inst Rebenzuchtung Geilweilerhof, D-76833 Siebeldingen, FRG  
*Deut Lebensm-Rundsch* 1994 **90** (6) 171  
Easy and fast enrichment (Kaltron method) and quantitative determination of wine volatiles with capillary gas chromatography (German, English Abstract)
- Salinas MR, Alonso GL, Esteban Infantes FJ// Univ Castilla La Mancha, Escuela Tecn Super Ingn Agron, Catedra Quim Agr Carretera Las Penas km 31, E-02071 Albacete, Spain  
*J Agr Food Chem* 1994 **42** (6) 1328  
Adsorption-thermal desorption-gas chromatography applied to the determination of wine aromas
- Zhang M, Danjou J, Rauzy S// Ctr Rech & Controle Eaux Paris, 144-156 Ave Paul Vaillant Couturier, F-75014 Paris, France  
*Analyst* 1994 **22** (5) 287  
Quantification of vanillin formed in highly basic aqueous medium using capillary gas chromatography and a FID detector (Letter) (French)

## 12 ORGANIC ACIDS

- J Inst Brew* 1994 **100** (4) 244  
European Brewery Convention Methods of Analysis 7.4.2 iso- $\alpha$ -acids,  $\alpha$ -acids and  $\beta$ -acids in hop and isomerized hop extracts (HPLC method)
- Chine TW, Wei TC, Chin WH, Teng CP, Tzu MP, Ren TW// Chung Yuan Christian Univ, Dept Chem, Chungli 32023, Taiwan  
*Jpn J Toxicol Environ Health* 1994 **40** (2) 197  
Determination of organic acids in natural and processed foods by isotacophoresis
- Hollingworth TA, Hungerford JM, Barnett JD, Wekell MM// US FDA, Seafood Prod Res Ctr, 22201 23rd Dr SE, Bothell, Wa 98201, USA  
*J Food Protect* 1994 **57** (6) 505  
Total volatile acids: Temperature dependent decomposition indicator in halibut determined by flow injection analysis
- Krug A, Kellner R// Vienna Tech Univ, Inst Analyt Chem, Getreidemarkt 9, A-1060 Vienna, Austria  
*Mikrochim Acta* 1994 **113** (3-6) 203  
Determination of citric acid by means of competitive complex formation in a flow injection system
- Radin L, Pronzato C, Casareto L, Calegari L// Univ Genoa, Inst Microbiol, Viale Benedetto XV 10, I-16132 Genoa, Italy  
*J Liq Chromatogr* 1994 **17** (10) 2231  
Tartaric acid in wines may be useful for preventing renal calculi: Rapid determination by HPLC
- Scotter MJ, Thorpe SA, Reynolds SL, Wilson LA, Strutt PR// MAFF Food Safety Directorate, Food Sci Lab, Norwich Res Pk, Norwich NR4 7UQ, England  
*Food Addit Contam* 1994 **11** (3) 295  
A rapid capillary gas chromatographic method for the determination of propionic acid and propionates in bread and bread products

Szucs R, Vindevogel J, Everaert E, De Cooman L, Sandra P, De Keukeleire D// State Univ Ghent, Krijgslaan 281 S4, B-9000 Ghent, Belgium  
*J Inst Brew* 1994 **100** (4) 293  
 Separation and quantification of all main hop acids in different hop cultivars by microemulsion electrokinetic chromatography

Yokota T, Mizutani K, Okada K, Tanaka O// Maruzen Pharmaceut Co Ltd, Dept Techn Dev Maruzen, 14703-10 Mukaishima cho, Onomichi, Japan  
*J Jpn Soc Food Sci Technol* 1994 **41** (3) 202  
 Quantitative analysis of gymnemic acids by high-performance liquid chromatography (Japanese, English Abstract)

### 13 ANIMAL PRODUCTS

Aubert S, Gonnet M, Jourdan P// INRA, Technol Prod Vegetaux Str, BP 91, Domaine St Paul, F-84143 Montfavet, France  
*Apidologie* 1994 **25** (3) 303  
 Conventional color-grading techniques of honey (French, English Abstract)

Desrosiers MF, Le FG, McLaughlin WL// US Technol Adm, Natl Inst Stand & Technol, Phys Lab, Div Ionizing Radiat, Gaithersburg, Md 20899, USA  
*Int J Food Sci Technol* 1994 **29** (2) 153  
 Inter-laboratory trials of the EPR method for the detection of irradiated meats containing bone

Kalligas G, Kaniou I\*, Zachariadis G, Tsoukali H, Epivatianos P// \*Minist Agr, Inst Food Hyg, Thessaloniki, Greece  
*J Liq Chromatogr* 1994 **17** (11) 2457  
 Thin layer and high-pressure liquid chromatographic determination of histamine in fish tissues

Ohashi M, Nomura F, Suzuki M, Otsuka M, Adachi O, Arakawa N// Moritex Co, Shibuya ku, 3-1-14 Jingumae, Tokyo 150, Japan  
*J Food Sci* 1994 **59** (3) 519  
 Oxygen-sensor-based simple assay of histamine in fish using purified amine oxidase

### 14 PLANT & MICROBIAL PRODUCTS

Bennat C, Engelhardt UH, Kiehne A, Wirries FM, Maier HG\*// \*Tech Univ Braunschweig, Inst Lebensmittelchem, Schleinitzstr 20, D-38106, Braunschweig, FRG  
*Z Lebensmittel-Untersuch Fors* 1994 **199** (1) 17  
 HPLC analysis of chlorogenic acid lactones in roasted coffee

Buckee GK, Mundy AP// Address not available.  
*J Inst Brew* 1994 **100** (4) 247  
 Determination of vicinal diketones in beer by gas chromatography (headspace technique): Collaborative trial

De Boever JL, Cottyn BG, Vanacker JM, Boucque CV// Agr Res Ctr, Natl Inst Anim Nutr, B-9090 Melle Gontrode, Belgium  
*Anim Feed Sci Tech* 1994 **47** (1-2) 1  
 An improved enzymatic method by adding gammanase to determine digestibility and predict energy value of compound feeds and raw materials for cattle

Douglas PL, Whaley MG// Univ Waterloo, Waterloo, On, Canada N2L 3G1  
*Cereal Food World* 1994 **39** (6) 436  
 On-line moisture sensors for ready-to-eat breakfast cereals

Frega N, Bocci F, Lercker G// DISTAM, Sez Ind & Tecnol Alimentari, via Donizetti 6, I-50144 Florence, Italy  
*J High Res Chromatogr* 1994 **17** (5) 303  
 High-resolution gas chromatographic method for determination of robusta coffee in commercial blends

Galvez MC, Barroso CG, Perez-Bustamante JA\*// \*Univ Cadiz, Dept Analyt Chem, Apartado 40, E-11510 Puerto Real, Spain  
*Z Lebensmittel-Untersuch Fors* 1994 **199** (1) 29  
 Analysis of polyphenolic compounds of different vinegar samples

Gamble GR// USDA ARS, Richard B Russell Agr Res Ctr, POB 5677, Athens, Ga 30613, USA  
*J Food Sci* 1994 **59** (3) 571  
 Non-invasive determination of freezing effects in blueberry fruit tissue by magnetic resonance imaging

Gonzalez-De Colmenares N, Ramirez-Martinez JR, Aldana JO, Clifford MN\*// \*Univ Surrey, Sch Biol Sci, Food Safety Res Grp, Guildford GU2 5XH, Surrey, England  
*J Sci Food Agr* 1994 **65** (2) 157  
 Analysis of proanthocyanidins in coffee pulp

Gorinstein S, Zemser M, Weisz M, Halevy S, Deutsch J, Tilis K, Feintuch D, Guerra N, Fishman M, Bartnikowska E// Hebrew Univ Jerusalem, Sch Pharm, Dept Pharmaceut Chem, POB 12065, IL-91120 Jerusalem, Israel

*Biosci Biotechnol Biochem* 1994 **58** (6) 1087  
 Fluorometric analysis of phenolics in persimmons

Hernandez CV, Rutledge DN// Inst Natl Agron Paris Grignon, Chim Analyt Lab, 16 rue Claude Bernard, F-75231 Paris 05, France  
*Analyst* 1994 **119** (6) 1171  
 Multivariate statistical analysis of gas chromatograms to differentiate cocoa masses by geographical origin and roasting conditions

Horie H, Mukai T, Goto T, Kawanaka M, Shimohara T// Natl Res Inst Vegetables Ornamental Plants & Tea, 2769 Kanaya, Shizuoka 428, Japan  
*J Jpn Soc Food Sci Technol* 1994 **41** (6) 433  
 Measurement of tea catechins using biosensors (Japanese, English Abstract)

Kondoh J, Shiokawa S// Shizuoka Univ, Grad Sch Electr Sci & Technol, Hamamatsu, Shizuoka 432, Japan  
*Jpn J Appl Phys Pt 1* 1994 **33** (5B) 3095  
 New application of shear horizontal surface acoustic wave sensors to identifying fruit juices

Lopez G, Ros G, Periago MJ, Martinez C, Rincon F// Univ Murcia, Fac Vet, Dept Bromatol & Inspecc Alimentos, Campus Espinardo, E-30071 Murcia, Spain  
*Rev Espan Cien Tecnol Aliment* 1994 **34** (3) 241  
 Methods for dietary fibre analysis: Critical aspects (Spanish, English Abstract)

Madigan D, McMurrough I\*, Smyth MR// \*Guinness Brewing Worldwide Res Ctr, St James's Gate, Dublin 8, Rep Ireland  
*Analyst* 1994 **119** (5) 863  
 Determination of proanthocyanidins and catechins in beer and barley by high-performance liquid chromatography with dual-electrode electrochemical detection

Pink D, Naczek M, Baskin K, Shahidi F\*// \*Mem Univ Newfoundland, Dept Biochem, St Johns, New Foundland, Canada A1B 3X9  
*J Agr Food Chem* 1994 **42** (6) 1317  
 Theoretical analysis of ultraviolet-visible spectra of various phenolic acid fractions of canola

Ritter G, Hagenauer-Hener U, Dietrich H// Forsch Anstalt Geisenheim, Fachgebiet Wienanalyt, Postfach 1154, D-65358 Geisenheim, FRG  
*Deut Lebensm-Rundsch* 1994 **90** (6) 175  
 Isolation and identification of a hydroxycinnamic acid in order to prove the addition of serviceberry *Sorbus domestica* L to apple wine (German, English Abstract)

Rodopoulos N, Norman A// Karolinska Inst, Karolinska Univ Hosp, Dept Clin Chem, S-17176 Stockholm, Sweden  
*Scand J Clin Lab Invest* 1994 **54** (4) 305  
 Determination of caffeine and its metabolites in urine by high-performance liquid chromatography and capillary electrophoresis

Sakamoto S, Goda Y, Maitani T, Yamada T, Nunomura O, Ishikawa K// Natl Inst Hlth Sci, Setagaya ku, Tokyo 158, Japan  
*Biosci Biotechnol Biochem* 1994 **58** (6) 1141  
 High-performance liquid chromatographic analyses of capsaicinoids and their phenolic intermediates in *Capsicum annuum* to characterize their biosynthetic status

Schmidt F// Address not available.  
*Monatsschr Brauwissen* 1994 **47** (6) 207  
 Determination of carbon dioxide in beer: Submitted on behalf of the Analysis Committee of the European Brewery Convention

Schmidt F// Address not available.  
*Monatsschr Brauwissen* 1994 **47** (6) 209  
 Determination of total oxygen in packaged beer: Submitted on behalf of the Analysis Committee of the European Brewery Convention (German, English Abstract)

Todorov N, Atanassova S, Pavlov D, Grigорова R// Univ Zootecn & Vet Med, BU-6000 Stara Zagora, Bulgaria  
*Livest Prod Sci* 1994 **39** (1) 89  
 Prediction of dry matter and protein degradability of forages by near infrared spectroscopy

Wanasundara U, Amarowicz R, Shahidi F\*// \*Mem Univ Newfoundland, Dept Biochem, St Johns, New Foundland, Canada A1B 3X9  
*J Agr Food Chem* 1994 **42** (6) 1285  
 Isolation and identification of an antioxidative component in canola meal

Werner WE, Wiktorowicz JE, Kasarda DD// Perkin Elmer Corp, Div Appl Biosyst, 820 Lincoln Ctr Dr, Foster City, Ca 94404, USA  
*Amer Lab* 1994 **26** (5) NN32  
 Wheat varietal identification by capillary electrophoresis

Yao JP, Nair MG\*, Chandra A// \*Michigan State Univ, Dept Hort, Bioact Nat Prod Lab, East Lansing, Mi 48824, USA  
*J Agr Food Chem* 1994 **42** (6) 1303  
 Supercritical carbon dioxide extraction of Scotch bonnet (*Capsicum annuum*) and quantification of capsaicin and dihydrocapsaicin