

## Recent Books, Early Summer 2002

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### **Aseptic Processing of Foods Containing Solid Particulates**

By Sudhir K. Sastry and Bill D. Cornelius

*Wiley: New York, 2002; 264 pp*

Focuses on the continuous sterilization of particulate foods by conventional heat exchange methods. Discusses U.S. FDA process filing and product characteristics, mathematical models, thermo-physical properties, residence time distribution, fluid–solid convective heat transfer, statistical design, analysis and microbiological validation, and HACCP evaluation.

### **Public, Animal, and Environmental Aquaculture Health Issues**

Edited by Michael L. Jahncke, E. Spencer Garrett, Alan Reilly, Roy E. Martin, and Emille Cole

*Wiley: New York, 2002; 224 pp*

Identifies issues to be considered for development of sustainable aquaculture operations. Includes an overview of world fisheries, aquaculture-related societal issues in industrialized and nonindustrialized countries, HACCP and aquaculture, international trade regulations, and future considerations of global aquaculture.

### **Hawley's Condensed Chemical Dictionary, 14th Ed.**

By Richard J. Lewis, Sr.

*Wiley: New York, 2001; 1248 pp*

Identifies chemical substances by name, physical properties, source of occurrence, CAS Registry Number, chemical formula, potential hazards, derivations, synonyms, and applications. Available as a book or CD-ROM.

### **Soil Chemistry, 3rd Ed.**

By Hinrich L. Bohn, Brian L. McNeal, and George A. O'Connor

*Wiley: New York, 2001; 320 pp*

Covers the basics of soil chemistry, including soil–ion interactions, biogeological cycles and pollution, water and soil solutions, oxidation and reduction, inorganic solid phase and organic matter in soil, weathering and soil development, cation retention (exchange), anion and molecular retention, and acid- and salt-affected soils.

### **Chemicals in the Environment: Fate, Impacts, and Remediation**

Edited by Robert L. Lipnick, Robert P. Mason, Margaret L. Phillips, and Charles U. Pittman

*ACS Symposium Series 806; American Chemical Society: Washington, DC, 2002; 480 pp*

Presents recent findings regarding the fate and transport of environmental contaminants in soil, sediment, water and air and their environmental impacts, monitoring, and remediation.

### **Agrochemical Resistance: Extent, Mechanism, and Detection**

Edited by J. Marshall Clark and Isamu Yamaguchi

*ACS Symposium Series 808; American Chemical Society: Washington, DC, 2001; 306 pp*

Reviews insecticide, herbicide, and fungicide resistance, with information on status, mechanisms, detection strategies, and ecologically sound management practices.

### **Quality Management of Nutraceuticals**

Edited by Chi-Tang Ho and Qun Yi Zheng

*ACS Symposium Series 803; American Chemical Society: Washington, DC, 2001; 320 pp*

Describes quality management of nutraceuticals, with reviews of several classes of nutraceutical compounds, chemical analysis of specific nutraceuticals, and chapters on bioactivities of several products.

### **Carotenoid-Derived Aroma Compounds**

Edited by Peter Winterhalter and Russell L. Rouseff

*ACS Symposium Series 802; American Chemical Society: Washington, DC, 2001; 336 pp*

Covers analytical and sensory characteristics of carotenoid-derived aroma compounds and discusses their biogenic, thermal, and biotechnological formation. Occurrence and generation of carotenoid-derived aroma compounds in tobacco, tea, flower scents, fruits, spices, grapes, and wine are presented.

### **Synthesis and Chemistry of Agrochemicals, Vol. VI**

Edited by Don R. Baker, Joseph G. Fenyes, George P. Lahm, Thomas P. Selby, and Thomas M. Stevenson

*ACS Symposium Series 800; American Chemical Society: Washington, DC, 2001; 368 pp*

Presents 30 chapters on the synthesis, chemistry, and biological activity of new classes of herbicides, fungicides, insecticides, and acaricides.

### **Analytical Mass Spectrometry: Strategies for Environmental and Related Applications**

By William L. Budde

*American Chemical Society: Washington, DC, 2001; 400 pp*

Topics include gas chromatography–mass spectrometry (GC-MS), alternatives to mass spectrometry, data acquisition strategies, limitations of mass spectrometry, standardization of GC-MS, identification criteria, quantitative analysis, detection limits, method validation, and quality control.

### **Wheat Gluten**

Edited by P. R. Shewry and A. S. Tatham

*Royal Society of Chemistry: Cambridge, U.K., 2001; 564 pp*

Contains papers based on presentations made at the 7th International Workshop on Gluten Proteins, held in Bristol, U.K., in April 2000. Sections include genetics and quality correlations; biotechnology; gluten protein analysis, purification, and characterization; disulfide bonds and redox reactions; improvers and enzymic modification; quality testing, nonfood uses; viscoelasticity, rheology, and mixing; synthesis during grain development and effects of nutrition and environment; and non-gluten components.

### **Magnetic Resonance in Food Science: A View to the Future**

Edited by G. A. Webb, P. S. Belton, A. M. Gil, and I. Delgadillo

*Royal Society of Chemistry: Cambridge, U.K., 2001; 282 pp*

Papers are drawn from the 5th International Conference on Applications of Magnetic Resonance in Food Science, held in Aveiro, Portugal, in September 2000, and are organized according to four symposium topics: view toward the next century; food safety and health; structure and dynamics; analysis, monitoring, and authentication.

**Beer: Quality, Safety and Nutritional Aspects**

By E. D. Baxter and P. S. Hughes

*Royal Society of Chemistry: Cambridge, U.K., 2001; 152 pp*

Presents an overview of the malting and brewing process and the importance of visual cues, examines flavor and nutritional aspects, and discusses maintenance of beer quality and safety.

**Food Colloids: Fundamentals of Formulation**

Edited by E. Dickinson and R. Miller

*Royal Society of Chemistry: Cambridge, U.K., 2001; 434 pp*

From presentations made at the conference "Food Colloids 2000: Fundamentals of Formulation", held in Potsdam, Germany, in April 2000. Sections on new techniques, emulsions, dispersions and foams, interfacial properties, protein structure and interactions, and aggregation and gelation are included.

**Food Flavors and Chemistry: Advances of the New Millennium**

Edited by A. M. Spanier, F. Shahidi, T. H. Parliment, C. Mussinan, C.-T. Ho, and E. Tratras Contis

*Royal Society of Chemistry: Cambridge, U.K., 2001; 666 pp*

Based on presentations from the 10th International Flavor Conference (2nd Annual George Charalambous Memorial Symposium) held in Paros, Greece, in July 2000. Topics include flavor composition, formation, analysis, quality and health, antioxidants, and dairy flavor chemistry.

**Trace Element Speciation for Environment, Food and Health**

Edited by L. Ebdon, L. Pitts, R. Cornelis, H. Crews, O. F. X. Donard, and P. Quevauviller

*Royal Society of Chemistry: Cambridge, U.K., 2001; 418 pp*

Presents a detailed review of trace element speciation issues in the occupational health, food, and environment sectors, along with the main conclusions arising from discussions held during expert meetings of the EU-sponsored Speciation 21 Network.

**Analytical Measurement Terminology: Handbook of Terms Used in Quality Assurance of Analytical Measurement**

By E. Prichard

*Royal Society of Chemistry: Cambridge, U.K., 2001; 86 pp*

Produced as part of the National Measurement System Valid Analytical Measurement Programme of the United Kingdom. Explains widely used terminology regarding the sample, the analytical method, reference materials and chemical standards, analysis, quality management, statistical terms, and data handling, taking into account official definitions and those developed by international committees.

**Starch: Advances in Structure and Function**

Edited by T. L. Barsby, A. M. Donald, and P. J. Frazier

*Royal Society of Chemistry: Cambridge, U.K., 2001; 231 pp*

Proceedings of an international conference held at Churchill College, Cambridge, U.K., in March 2000. Starch structure and

characterization, processing and ingredient functionality, and control of starch biosynthesis are among the topics presented.

**Biologically-Active Phytochemicals in Food: Analysis, Metabolism, Bioavailability and Function**

Edited by W. Pfannhauser, G. R. Fenwick, and S. Khokhar

*Royal Society of Chemistry: Cambridge, U.K., 2001; 635 pp*

Proceedings of EUROFOODCHEM XI, held in Norwich, U.K., in September 2001. Includes sections on biosynthesis and significance of phytochemicals in food, analysis, antioxidants, bioavailability, influence of structure and processing on bioavailability, future developments, and databases.

**Capillary Electrochromatography**

Edited by Keith D. Bartle and Peter Myers

*Royal Society of Chemistry: Cambridge, U.K., 2001; 166 pp*

Presents reviews on the theory and development of capillary electrochromatography and its potential future applications.

**Chemical and Functional Properties of Food Proteins**

Edited by Z. E. Sikorski

*CRC Press: Boca Raton, FL, 2001; 415 pp*

Discusses the content of proteins in food structures, the chemical, functional, and nutritive properties of food proteins, the chemical and biochemical modification of proteins in foods during storage and processing, and the mutagenicity and carcinogenicity of nitrogenous compounds.

**The Protein Protocols Handbook, 2nd Ed.**

Edited by John Walker

*Humana Press: Totowa, NJ, 2002; 1176 pp*

Contains sections on quantitation of proteins, electrophoresis of proteins and peptides and detection in gels, blotting and detection of proteins, chemical modification of proteins, peptide production and purification, protein/peptide characterization, glycoproteins, antibody techniques, and monoclonal antibodies.

**Introduction to Proteomics: Tools for the New Biology**

Edited by Daniel C. Liebler

*Humana Press: Totowa, NJ, 2002; 210 pp*

Introduces the science of proteomics, the basics of analysis of proteins and proteomes, and the employment of these techniques to investigate their roles in living systems. Sections include proteomics and the proteome, tools of proteomics, and applications of proteomics.

**Food Phytates**

Edited by Shridhar K. Sathe and N. Rukma Reddy

*CRC Press: Boca Raton, FL, 2001; 280 pp*

Presents chapters on the occurrence, dietary intake, biosynthesis, stability, analysis, degradation, bioavailability, and potential uses of food phytates.

**The BioPesticide Manual, 2nd Ed.**

Edited by L. G. Copping

*British Crop Protection Council: Surrey, U.K., 2001; 576 pp*

Covers nomenclature, source, production, target pests and crops, biological activity, commercialization, application, product specifications, compatibility, toxicity, and environmental impact of microorganisms, natural products, macro-organisms, semiochemicals, and genes used in crop protection.