

## Recent Books, Fall 2001

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***The Story of Taxol: Nature and Politics in the Pursuit of an Anti-Cancer Drug.*** By J. Goodman and V. Walsh; Cambridge University Press: New York, 2001; 282 pp.

A study of how taxol was discovered, researched, and brought to market, documenting the complexities and conflicting interests in the ongoing process to find effective cancer treatments.

***Rice Biotechnology: Improving Yield, Stress Tolerance and Grain Quality.*** Edited by J. A. Goode and D. Chadwick; Novartis Foundation Symposium 236; Wiley: New York, 2001; 272 pp.

Discusses plant genomics, molecular biological approaches to increase yield, enhancing tolerance to biotic and abiotic stresses, and improving nutritional quality in the grain.

***Omega-3 Fatty Acids: Chemistry, Nutrition, and Health Effects.*** Edited by F. Shahidi and J. W. Finley; ACS Symposium Series 788; American Chemical Society: Washington, DC, 2001; 354 pp.

Includes sections on Polyunsaturated Fatty Acids in Health and Nutrition, Production of Polyunsaturated Fatty Acids and Special Nutraceutical Products, and Aroma Effects, Stabilization, and Analytical Procedures.

***Biopolymers from Polysaccharides and Agroproteins.*** Edited by R. A. Gross and C. Scholz; ACS Symposium Series 786; American Chemical Society: Washington, DC, 2001; 440 pp.

Part one of a three-volume series on polymers from renewable resources, featuring sections on polysaccharide-based materials, surface active polymers and solution properties, natural and synthetic poly(amino acids), microbial and in vitro synthetic methods, biomedical polymers from carbohydrates and amino acids, and the status and testing of biodegradable polymers.

***Handbook of Nutraceuticals and Functional Foods.*** Edited by R. E. C. Wildman; CRC Press: Boca Raton, FL, 2001; 542 pp.

Reviews the historical aspects of nutraceuticals; provides an in-depth guide to nearly 200 nutraceutical compounds.

***Fundamental Food Microbiology,*** 2nd ed. By B. Ray; CRC Press: Boca Raton, FL, 2001; 548 pp.

Includes the history of food microbiology and microorganisms important in food, microbial growth and metabolism, beneficial uses of microorganisms, microbial food spoilage, microbial foodborne diseases, and control of microorganisms in food. Intended for use as a text for undergraduate food microbiology and related courses.

***CRC Handbook of Dietary Fiber in Human Nutrition,*** 3rd ed. By G. A. Spiller; CRC Press: Boca Raton, FL, 2001; 640 pp.

Gives an overview of dietary fiber, its properties, methods of analysis, physiological and metabolic effects, and relation to prevention and treatment of disease.

Includes chapters on whole grains and health and on fiber consumption patterns in several countries.

***Food Shelf Life Stability; Chemical, Biochemical and Microbiological Changes.*** Edited by N. A. M. Eskin and D. S. Robinson; CRC Press: Boca Raton, FL, 2000; 384 pp.

Examines the physical, chemical, and biochemical factors affecting food quality.

***Food Composition and Nutrition Tables,*** 6th ed. Revised, edited, and compiled by H. Scherz and F. Senser; CRC Press: Boca Raton, FL, 2000; 1182 pp.

Contains nutrition tables from the SFK DB (Souci-Fachmann-Kraut database); food item names are given in German, English, and French, with nutritional (energy) values, information on waste, and concentrations of food constituents.

***The Stability and Shelf-Life of Food.*** Edited by D. Kilcast and P. Subramaniam; CRC Press: Boca Raton, FL, 2001; 350 pp.

Discusses tools that can be used to measure shelf life, what determines shelf life, and ways it can be extended. Concludes with discussions of specific foods, including fruits and vegetables, baked foods, dairy products, oils, and fats.

***Handbook of Dairy Foods and Nutrition,*** 2nd ed. Edited by G. D. Miller, J. K. Jarvis, and L. D. McBean; CRC Press: Boca Raton, FL, 2000; 448 pp.

The role of dairy products in the diet for cardiovascular health, reducing risk for blood pressure and colon cancer, and enhancing bone and oral health is examined. The importance of milk and milk products in the diet throughout the life cycle is addressed.

***Environmental Toxicants: Human Exposures and Their Health Effects,*** 2nd ed. Edited by M. Lippmann; Wiley-Interscience: New York, 2000; 1008 pp.

Presents information on the effects of human exposure to selected chemical and physical agents in non-occupational environments and provides a critical review on 25 environmental agents concerning their known or likely impact on human health, especially after long-term exposure.

***Principles of Toxicology: Environmental and Industrial Applications,*** 2nd ed. Edited by P. L. Williams, R. C. James, and S. M. Roberts; Wiley: New York, 2000; 624 pp.

Focuses on general toxicological concepts and toxicity in organ systems, reproductive and genetic toxicology, carcinogenesis, risk assessment, and environmental and occupational health.

***Introduction to Biochemical Toxicology,*** 3rd ed. Edited by E. Hodgson and R. C. Smart; Wiley-Interscience: New York, 2001; 752 pp.

Contains updated overviews of immunochemical and molecular techniques and new chapters on immuno-

toxicology, cutaneous toxicology, reproductive and developmental toxicology, and molecular epidemiology.

***Plastic Packaging Materials for Food: Barrier Function, Mass Transport, Quality Assurance, and Legislation.*** Edited by O.-G. Piringer and A. L. Baner; Wiley-VCH: Weinheim, Germany, 2000; 606 pp.

Discusses the estimation of effects on packaged goods from the external environment or from the packaging; preservation of quality, transformation products of plastics and their additives, diffusion of polymers, gases, liquids, and amorphous solids; transport and diffusion equations; and regulatory and sensory issues.

***Bioseparations Engineering; Principles, Practice and Economics.*** By M. R. Ladisch; Wiley: New York, 2001; 760 pp.

Mechanistic analysis and engineering design methods are given for isocratic and gradient chromatography; sedimentation, centrifugation, and filtration; membrane systems; and precipitation and crystallization. Topics addressed within this framework are stationary phase selection; separations development; modeling of ion exchange, size exclusion, reversed phase, hydrophobic interaction, and affinity chromatography; regulatory issues; and organization of separation strategies. Graduate level text.

***Medicinal Plants: Culture, Utilization and Phytopharmacology.*** By T. S. C. Li; Technomic Publishing: Lancaster, PA, 2000; 512 pp.

Discusses major constituents and medicinal values; toxicity of medicinal plants; essential oils and fractions; value-added products and possible uses; cultivation and harvesting; and major diseases and pests.

***Food Irradiation: Principles and Applications.*** Edited by R. A. Molins; Wiley: New York, 2001; 482 pp.

Food irradiation chemistry, the irradiation of various food products, process control and dosimetry, and economic and technical considerations are presented.

***Quality Assurance Principles for Analytical Laboratories,*** 3rd ed. Edited by F. M. Garfield, E. Klesta, and J. Hirsch; AOAC International: Gaithersburg, MD, 2000; 194 pp.

This new edition contains a more international approach to quality assurance audits and accreditation, including the role of ISO/IEC 17025. Contains a quality assurance overview, statistical applications and control charts, personnel considerations, laboratory design, management of equipment and supplies, sampling, records, methods and analyses, proficiency testing, audit procedures, and laboratory accreditation

***Basic Calculations for Chemical and Biological Analysis,*** 2nd ed. Edited by B. J. S. Efiok and E. E. Eduok; AOAC International: Gaithersburg, MD, 2000; 228 pp.

Contains chapters on reagent quantitation, calculations involving chemical reactions and stoichiometry, properties of gases and colligative properties of solutions, buffer preparation, spectrophotometry, enzyme assays and activity, radioactivity, and analytical calculations using spreadsheets.

***Postharvest Diseases of Fruits and Vegetables.*** By R. Barkai-Golan; Elsevier: Amsterdam, The Netherlands, 2001; 432 pp.

Topics include the causal agents of postharvest diseases; their sources, ways of penetration into the host, and factors that may accelerate or suppress their development; a detailed description of the major diseases of selected groups of fruits; and suppression of postharvest diseases.

***The ISO 9000 Quality System: Applications in Food and Technology.*** By D. L. Newslow; Wiley-Interscience: New York, 2001; 254 pp.

A guide to understanding and applying ISO 9000 standards to the food manufacturing industry. Discusses certification, the ISO 9001:2000 revision, quality management systems, and potential pitfalls.

***Silicon in Agriculture.*** Edited by L. E. Datnoff, G. H. Snyder, and G. H. Korndörfer; Elsevier: New York, 2001; 424 pp.

Developed from the first International Conference on Silicon in Agriculture, held in Florida in 1999. The role of silicon in crop plants is examined.

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