

current information for engineers and others involved in the design and optimization of biorefineries. Editors are Stuart (chemical engineering, École Polytechnique of the U. of Montreal) and El-Halwagi (chemical engineering, Texas A&M U.).

TP248 2012-031373 978-1-4443-3337-4  
**Membrane processing; dairy and beverage applications.**

Title main entry. Ed. by A.Y. Tamime. (Society of Dairy Technology series)  
Wiley-Blackwell, ©2013 349 p. \$199.95

The series, published in conjunction with the Society of Dairy Technology, provides information for practicing dairy scientists and technologists in contexts ranging from small businesses to modern large-scale operations. In this volume, practitioners, consultants, and researchers critically examine the pool of scientific knowledge available about reverse osmosis, nanofiltration, ultrafiltration, and microfiltration. They begin by setting out the principles, developments, and designs of membrane processes that are mainly used in commercial dairy and beverage applications. Then they describe applications, first in the manufacture of dairy products then in the manufacture of fruit juices, beer and cider, wine, and vinegar.

TP248 2012-031108 978-3-11-029827-7  
**Microalgal biotechnology; integration and economy.**

Title main entry. Ed. by Clemens Posten and Christian Walter.  
De Gruyter, ©2012 319 p. \$121.45

Molecular biologists and related scientists from academic and commercial contexts survey possible contributions that the many species of algae might make to solving some grave human problems. Their topics include *Spirulina* production in volcano lakes from natural resources to human welfare, algae for aquaculture and animal feed, screening and developing antiviral compound candidates from phototrophic microorganisms, natural drug discovery from microalgae, and trends driving microalgae-based fuels into economic production.

TP248 2012-027597 978-1-118-46039-9  
**Nano and cell mechanics; fundamentals and frontiers.**

Title main entry. Ed. by Horacio D. Espinosa and Gang Bao. (Micro & nanotechnology series)  
John Wiley & Sons, ©2013 482 p. \$149.95

Nano and bio-nano research and applications are occurring in manufacturing, healthcare, agriculture, energy, and defense. This book brings together developments from the many intersecting fields—reports that are typically published in discipline-specific journals where the material might not reach the wide range of interested readers. Seventeen contributions are arranged in sections on biological phenomena, nanoscale phenomena, experimentation, and modeling. Specific topics include cell-receptor interactions, regulatory mechanisms of kinesin and myosin motor proteins (inspiration of improved control of nanomachines), neuromechanics (the role of tension in neuronal growth and memory); roughness-induced superhydrophobicity, hierarchical carbon-based materials, nanotwinned hierarchical metals; *in situ* TEM electromechanical testing of nanowires and nanotubes, nano-cells for live-cell imaging of gene expression; and mechanics of curvilinear electronics, modeling and simulation of hierarchical protein materials, and multiscale modeling for the vascular transport of nanoparticles. The two editors are affiliated as follows: Horacio Dante Espinosa (theoretical and applied mechanics, Northwestern U.) and Gang Bao (biomedical engineering, Georgia Institute of Technology and Emory U.).

TP359 978-2-7108-0984-5  
**Hydrogen, the post-oil fuel?**

Freund, E. and P. Lucchese. Trans. by Trevor Jones.  
Editions Technip, ©2013 336 p. \$98.00 (pa)

Freund (formerly with IFP Energies nouvelles) and Lucchese (New Energy Technologies Programme, CEA) introduce chapters that examine the prospects of hydrogen as an intermediate vector between a primary energy source and its final form in a sustainable energy system. In historical context, French contributors (mostly) describe its potential applications; the latest technologies for its production, distribution, and storage; and safety issues. Includes refining schemes. IFP Energies nouvelles is a public sector research, innovation and training center active in the fields of energy, transport, and the environment. CEA is the French Alternative Energies and Atomic Energy Commission. Distributed in the US by Atlas Books.

TP370 2012-952907 978-0-85709-595-4

**Open innovation in the food and beverage industry.**

Title main entry. Ed. by Marian Garcia Martinez. (Woodhead Publishing series in food science, technology and nutrition; no.243)  
Woodhead Publishing, ©2013 400 p. \$280.00

For professionals in management, research, and product development, as well as academics, Martinez (agri-food marketing, Kent Business School, UK) assembles 21 chapters that explain the open innovation approach used by food and beverage companies to enhance internal idea development by allowing additional exploitation of external ideas and paths to market. Business, management, innovation, food, and other researchers from Europe and the US discuss the changing nature of innovation in the industry, convergence between the food and pharmaceutical industries, and cases of Kraft, Lindt, and Spanish agri-food firms, then the role of partners and networks in open innovation in terms of collaboration, co-creation of value with consumers, the effectiveness of cluster organizations, and the importance of network knowledge. They consider the establishment and management aspects of open-innovation partnerships and networks and discuss open innovation tools, processes, and managerial frameworks, and the development, application, and psychology of various initiatives, including crowdsourcing and the role of information systems. Other examples include Unilever, Mars, and Heinz.

TP372 978-90-8686-207-8  
**Consumer attitudes to food quality products; emphasis on southern Europe.**

Title main entry. Ed. by Marija Klopčič, Abele Kuipers and Jean-François Hocquette. (EAAP publication; 133)  
Wageningen Academic Publishers, ©2013 298 p. \$123.00

Editor Klopčič (biotechnology, University of Ljubljana, Slovenia) gathers papers from a workshop held in conjunction with the 2010 Conference of the European Association for Animal Production. Overview papers address food quality policies and consumer interests in the EU, trends in food choice and nutrition, and theories, models, and research methods in consumer food science using Western Balkan and Southern European countries as a case study. The rest of the book presents country case studies of European and especially Western Balkan countries, examining aspects such as market trends and consumer behavior related to organic products, and the roles of retailers, catering companies, and brand manufacturers in market opportunities for sustainable foods. The book is distributed in the US by Infield.

TP374 2012-955649 978-0-85709-503-9  
**Trends in packaging of food, beverages and other fast-moving consumer goods (FMCG).**

Title main entry. Ed. by Neil Farmer. (Woodhead Publishing series in food science, technology and nutrition; no.244)  
Woodhead Publishing, ©2013 322 p. \$240.00

Contributors from US and British packaging companies and consultancies explore the markets, materials, and technologies of today's packaging for a genre of commodity. Among their topics are modified atmosphere packaging and other active packaging systems, developments in plastic materials and recycling systems, innovations and trends in metal packaging, international environmental and sustainability regulatory and legislative frameworks, smart and interactive packaging developments, and global trends and analysis for the international packaging market in relation to the speed of impact of packaging innovation and likely material changes.

TP418 978-1-937235-39-0  
**Allured's flavor and fragrance materials buyer's guide 2013; worldwide reference list of materials used in compounding flavors and fragrances.**

Title main entry.  
Alluredbooks, ©2013 478 p. \$149.00 (pa)

Drawing information from flavor and fragrance suppliers, industry and government organizations, and related texts, this alphabetical guide lists materials, synonyms, and products, including Flavor and Extract Manufacturers Association (FEMA), Chemical Abstracts Service (CAS), Council of Europe (CoE), natural status, and supplier information. The flavor materials include current materials cited in the FEMA GRAS lists through the GRAS 26 list and subsequent interim publications, the EU "Union" list of flavoring substances that can be used in food, and the materials in the publications of the CoE, as well as information from the Chemical Sources Association and users and suppliers of materials. The fragrance materials have been compiled from the list of materials that the Research Institute for Fragrance Materials has investigated for safety in fragrance use, the list of substances for which there are standards published by the International Fragrance Association North America/Fragrance Materials Association of the United States, and other