

There are a number of applications of alcoholic fuels. Alcoholic, direct fuel cells are used for portable power generation. Methanol, because of its toxicity and miscibility, is less applicable than ethanol. Moreover, ethanol, being renewable and environmentally friendly, plays a role as an alternative supply of hydrogen obtained in the steam reforming process. Biofuel cells, utilizing enzymes (dehydrogenases) as a catalyst for alcohol oxidization, are alternatives for chemical cells. The role of catalysts is taken by enzymes instead of heavy or precious metals. There is also no need to use polymer electrolyte membranes, the most costly part of fuel cell (Chapter 12, Section 3). These applications can be implemented in order to reduce dependency on oil and environmentally toxic power sources.

The book provides chemists, engineers and scientists with information about alternative energy sources and gives clues for managers that concern implementation of alcoholic fuels in a variety of energy conversion devices. Shown examples broaden the scope of view with respect to alternative energy technologies.

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**Units and Symbols in Physical Chemistry**, Richard E. Cohen, Tomislav Cvitas, Jeremy G. Frey, Bertil Holström, Kozo Kuchitsu, Roberto Marquardt, Ian Mills, Franco Pavese, Martin Quack, Jürgen Stohner, Herbert L. Strauss, Michio Takami, Anders J. Thor, **Quantities, The Royal Society of Chemistry, Cambridge, UK, 2007 (xiv + 234 pp., £39.95, ISBN: 0-85404-433-7)**

The first IUPAC Manual of Symbols and Terminology for Physicochemical Quantities and Units of which this book is a successor, was published in 1969, with the objective of 'securing clarity and precision, and wider agreement in the use of symbols, in different countries, among physicists, chemists and engineers, and by editors of scientific journals.' Attempts to provide a readable compilation of widely used terms, general rules and symbols from many sources for better understandable definitions and explanations of best practice were successful. Thus the current aim is to continue to create this manual to improve the exchange of scientific information among the readers in different disciplines and across different nations.

The first part includes a section on surface structure, and then describes the use of the International System of units

(SI) and a few other systems including mathematical symbols, their use in print and conventions in optical spectroscopy. A glossary of terms used in chemical kinetics, photochemistry, electrochemistry, colloid and surface chemistry is given (Chap. 2–4). Revision of the previous editions' material describing fundamental physical constants, properties of elementary particles, elements and nuclides is also provided (Chap. 5–6). Final chapters include equations of electricity, magnetism, outlines for the treatment of uncertainty in physical measurements and provision of relevant references (Chap. 7–10).

For modern industrial economy precise scientific language is important and can be encoded by appropriate definitions of quantities, units and symbols which are crucial for international exchanges in science and technology with important consequences. *Quantities, Units and Symbols in Physical Chemistry* is designed for scientists, science publishers and organisations working across a multitude of disciplines requiring the use of internationally confirmed nomenclature in Physical Chemistry.

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**Handbook of fruits and fruit processing**, Y.H. Hui (ed.), Blackwell Publishing, Ames, Iowa, USA, 2006 (xii + 697 pp., £125, ISBN: 0-8138-1981-4)

The processing of fruits continues to undergo rapid change. Fruits have always played an important role in human nutrition and we should remember that. *Handbook of fruits and fruit processing* describes the processing of fruits from four perspectives: a scientific basic, production techniques, manufacturing and engineering principles and processing of individual fruits.

Part I presents information about fundamental aspects and processing technology, starting with receipt of fruits and fruit products at the processing plant. There is a prelude to commercial production, describing technological and engineering principles involved in processing fruits. As examples, microbiology, nutrition, heat treatment, freezing, drying, pulsed electric fields, minimal processing, fresh-cut fruits, additives, and waste management are all discussed. Investigating a wide range of food additives including sweeteners, polyols, discussions focus on sugar alcohols, saccharin, cyclamate and aspartame, with applications and the view of the regulatory boards in the USA