

**New Membranes and Advanced Materials for Wastewater Treatment.** Edited by Anja Mueller (Central Michigan University), Benoit Guieysse (Massey University), and Abhijit Sarkar (Michigan Molecular Institute). American Chemical Society (distributed by Oxford University Press): Washington, DC. 2010. x + 260 pp. \$150. ISBN 978-0-8412-7214-9.

This book was developed from the presentations given at the 235th meeting of the American Chemical Society, sponsored by the Division of Environmental Chemistry, in New Orleans, LA in 2008. In it, the latest research on new materials, e.g., the synthesis and use of molecularly imprinted polymers to remove endocrine-disrupting compounds, and on advanced membranes, e.g., microsieves modified with biorepellant coatings, is covered. Following an introductory chapter by the editors are 13 chapters, which are organized under the following headings: (I) Advanced Materials and (II) Advanced Membranes. An author index and a subject index complete the book.

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**Electrochemistry of Metal Chalcogenides.** By Mirtat Bouroushian (National Technical University of Athens, Greece). From the series: Monographs in Electrochemistry. Edited by Fritz Scholz. Springer Verlag: Berlin, Heidelberg. 2010. xii + 358 pp. \$159. ISBN 978-3-642-03966-9.

This monograph is the first devoted exclusively to the electrochemistry of the chalcogenides and their metallic compounds. It serves as a basic reference on the structural chemistry, thermodynamics, and even history and sources of these elements and compounds. Many topics related to the applications of these materials in coatings, batteries, solar cells, and catalysis are also covered, and useful Pourbaix diagrams, shown in their relevant

context, are included. The author also reviews in detail the electrochemical properties and electrodeposition of metal chalcogenides and discusses such contemporary topics as electrochemical atomic layer epitaxy, quantum dots, and photoelectrochemistry in relation to them. Although it is impossible in 358 pages to include all previous work on these important materials, the book is extensively referenced with well over 1000 citations. Given the emerging applications for these materials, especially in energy conversion and storage, it will be an indispensable volume for the many students and researchers, especially the younger ones, who are beginning to explore these materials and are unfamiliar with the large body of previous work.

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**Fuel Cell Chemistry and Operation.** Edited by Andrew M. Herring (Colorado School of Mines, Golden, CO), Thomas A. Zawodzinski, Jr. (University of Tennessee—Knoxville), and Steven J. Hamrock (3M Company, St. Paul, MN). American Chemical Society (distributed by Oxford University Press): Washington, DC. 2010. x + 192 pp. \$150. ISBN 978-0-8412-2569-5.

This book was developed from a symposium of the same title, sponsored by the ACS Division of Fuel Chemistry and held in Philadelphia in 2008. Some of the topics covered in its 11 chapters include fuel cell electrocatalysis, membrane development, fuel cell durability, and broad-band dielectric spectroscopy. An author and a subject index complete the book.

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