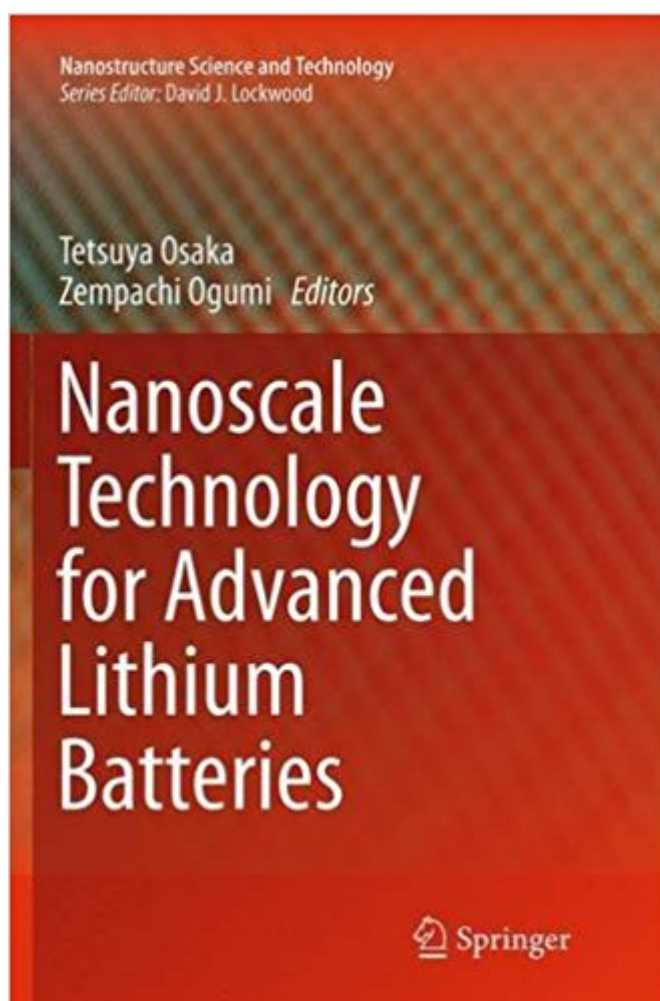


The book was found

# Nanoscale Technology For Advanced Lithium Batteries (Nanostructure Science And Technology)



## Synopsis

The unfortunate and serious accident at the nuclear power plants in Fukushima, Japan caused by the earthquake and tsunami in March 2011 dealt Japan a serious blow. Japan was nearly deprived of electric power when in response to the accident all nuclear reactors in Japan were shut down. This shortage further accelerated the introduction of renewable energies. This book surveys the new materials and approaches needed to use nanotechnology to introduce the next generation of advanced lithium batteries, currently the most promising energy storage devices available. It provides an overview of nanotechnology for lithium batteries from basic to applied research in selected high technology areas. The book especially focuses on near-term and future advances in these fields. All contributors to this book are expert researchers on lithium batteries.

## Book Information

Series: Nanostructure Science and Technology (Book 182)

Paperback: 273 pages

Publisher: Springer; Softcover reprint of the original 1st ed. 2014 edition (August 23, 2016)

Language: English

ISBN-10: 1493949160

ISBN-13: 978-1493949168

Product Dimensions: 6.1 x 0.7 x 9.2 inches

Shipping Weight: 1.1 pounds (View shipping rates and policies)

Average Customer Review: Be the first to review this item

Best Sellers Rank: #2,078,251 in Books (See Top 100 in Books) #68 in [Books > Science & Math > Chemistry > Physical & Theoretical > Electrochemistry](#) #79 in [Books > Science & Math > Chemistry > Electrochemistry](#) #318 in [Books > Science & Math > Technology > Nanotechnology](#)

## Customer Reviews

The unfortunate and serious accident at the nuclear power plants in Fukushima, Japan caused by the earthquake and tsunami in March 2011 left Japan with a serious blow. Japan was deprived of electric power. This problem further accelerated the introduction of renewable energies. This book surveys the new materials and technologies needed to welcome the next generation of energy conversion and storage devices, such as lithium secondary batteries on the basis of nanotechnology. Most of the contributors for this book are from institutions researching lithium batteries. This book provides an overview of nanotechnology for lithium batteries from basic to

applied research in selected high technology areas. The book especially focuses on near-term and future advances in these fields.

Professor Tetsuya Osaka is a professor in the Department of Applied Chemistry, Waseda University, Tokyo, Japan - a position he has held since 1986. He has contributed as an author and/or editor of more than 70 books and published more than 890 original and review papers in these fields. He has been identified as one of the Highly Cited Researchers in the Materials Science category on the website of Thomson Scientific's ISI Highly Cited.com. Ogumi's technical contributions have been recognized by many awards including Medal with Purple Ribbon bestowed from the Decoration Bureau of the Cabinet Office, Japan . He received Research Award of the Electrodeposition Division of ECS in 1996 and was elected a Fellow of ECS (2002), IEEE (2002), IUPAC (2004) and ISE (2006). Professor Zempachi Ogumii is an Adjunct Professor of the Innovative Collaboration Center at Kyoto University, Kyoto, Japan. He graduated from Kyoto University in 1968 and received his Doctorate Degree from the Graduate School of Engineering, Kyoto University in 1974. After a short time in the industry, he became a research associate at the Fritz-Haber Institute of Max-Planck Foundation in Berlin from 1975 to 1976. In 1976, he joined Kyoto University and worked there until 1992 as a professor for the Graduate School of Engineering. In addition to teaching at Kyoto University, Ogumi is also a visiting professor of Waseda University and has published over 300 scientific papers on batteries, fuel cells, and electrolysis.

[Download to continue reading...](#)

Nanoscale Technology for Advanced Lithium Batteries (Nanostructure Science and Technology)  
Introduction to Nanoscale Science and Technology (Nanostructure Science and Technology)  
Lithium Metal Anodes and Rechargeable Lithium Metal Batteries (Springer Series in Materials Science)  
Electrolytes for Lithium and Lithium-Ion Batteries (Modern Aspects of Electrochemistry)  
Lithium Batteries: Science and Technology  
Lithium-Ion Batteries: Science and Technologies  
Nanostructured Photocatalysts: Advanced Functional Materials (Nanostructure Science and Technology)  
Lithium Process Chemistry: Resources, Extraction, Batteries, and Recycling  
Nanomaterials for Lithium-Ion Batteries: Fundamentals and Applications  
DIY Lithium Batteries: How to Build Your Own Battery Packs  
Off Grid Solar: A handbook for Photovoltaics with Lead-Acid or Lithium-Ion batteries  
Advances in Lithium-Ion Batteries  
LITHIUM-ION BATTERIES: SOLID-ELECTROLYTE INTERPHASE  
Advanced Batteries: Materials Science Aspects  
Batteries for Sustainability: Selected Entries from the Encyclopedia of Sustainability Science and Technology  
No Small Matter: Science on the Nanoscale  
Li-S and Li-O<sub>2</sub> Batteries with High Specific Energy:

Research and Development (SpringerBriefs in Molecular Science) MEMS and Microsystems:  
Design, Manufacture, and Nanoscale Engineering Fabrication Engineering at the Micro- and  
Nanoscale (The Oxford Series in Electrical and Computer Engineering) Nanoscale Energy  
Transport and Conversion: A Parallel Treatment of Electrons, Molecules, Phonons, and Photons  
(MIT-Pappalardo Series in Mechanical Engineering)

[Contact Us](#)

[DMCA](#)

[Privacy](#)

[FAQ & Help](#)