



June 2016

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Pat Stauffer, Research Librarian, Associate Senior  
Justin Day, Research Librarian

## Quartile Tool updated with new data

Have you heard about “first quartile journals” or “top journals” from your colleagues or managers? When you’re looking for places to publish, check out the library’s [Quartile Tool](#) which organizes journal rankings and impact factors into a convenient table based on subject area. The 2016 data release of Journal Citation Reports became available in late June. Our tool has been updated to reflect the new rankings and impact factors. A highlight in this year’s JCR edition is the addition of the new subject category “Green and Sustainable Science and Technology”. Check it out!

## New eBooks

[Alternative Energy Sources and Technologies: Process Design and Operation](#), 2016

Presenting a comprehensive analysis of the use of alternative sources of energy and technologies to produce fuels and power, this book describes the energy value chain from harvesting the raw material, (i.e solar, wind, biomass or shale gas) followed by analysis of the processing steps into power, fuels and/or chemicals and finally the distribution of the products.

[Applied Hierarchical Modeling in Ecology, Volume 1](#), 2015

This first volume explains static models/procedures in the context of hierarchical models that collectively represent a unified approach to ecological research, taking the reader from design, through data collection, and into analyses using a very powerful class of models.

[Bioremediation and Bioeconomy](#), 2016

This book provides a common platform for scientists from various backgrounds to find sustainable solutions to environmental issues, including the ever-growing lack of water resources which are under immense pressure due to land degradation, pollution, population explosion, urbanization, and global economic development. The book addresses these challenges by presenting innovative and cost-effective solutions to decontaminate polluted environments, including usage of contaminated land and waste water for bioproducts such as natural fibers, biocomposites, and fuels to boost the economy.

[Community Energy Networks With Storage: Modeling Frameworks for Distributed Generation](#), 2016

This book addresses the problem of building an optimal community energy network in a decentralized distributed energy context. The book introduces a few novel modeling frameworks to assist a single customer or a community of multiple end-user customers in building their optimal electricity system/network and operating their own local energy system. The content of the book is suitable for students, academics and industrial practitioners studying or working in the area of energy management and smart grid energy networks.

[Coastal and Marine Hazards, Risks, and Disasters](#), 2015

This book provides a scientific approach to those hazards and disasters related to the Earth's coasts and oceans. This is the first book to integrate scientific, social, and economic issues related to disasters such as hazard identification, risk analysis, and planning, relevant hazard process mechanics, discussions of preparedness, response, and recovery, and the economics of loss and remediation.

[Environmental Biotechnology: A Biosystems Approach \(Second Edition\)](#), 2015

Most texts address either the applications or the implications of biotechnology. This book addresses both. The applications include biological treatment and other environmental engineering processes. The risks posed by biotechnologies are evaluated from both evidence-based and precautionary perspectives. Using a systems biology approach, the book provides a context for researchers and practitioners in environmental science that complements guidebooks on the necessary specifications and criteria for a wide range of environmental designs and applications.

[Environmental Planning for Oceans and Coasts](#), 2016

This book informs environmental planning professionals, students and those interested in oceans and coasts from an environmental perspective about what is needed for planning and management of these unique environments.

[Nano and Biotech Based Materials for Energy Building Efficiency](#), 2016

Maximizing reader insights into how nano and biotech materials – such as aerogel based plasters, thermochromic glazings and thermal energy adsorbing glass, amongst others – can provide high energy efficiency performance in buildings, this book provides practitioners in the field with an important high-tech tool to tackle key challenges and is essential reading for civil engineers, architects, materials scientists and researchers in the area of the sustainability of the built environment.

[Smart Energy in the Smart City: Urban Planning for a Sustainable Future](#), 2016

This book examines the energy dimension of the smart city from the perspective of urban planning, providing a complete overview that ranges from theoretical aspects to practical considerations and projects. In addition, it aims to illustrate how the concept of the smart city can enhance understanding of the urban system and foster new forms of management of the metropolis, including with respect to energy supply and use.

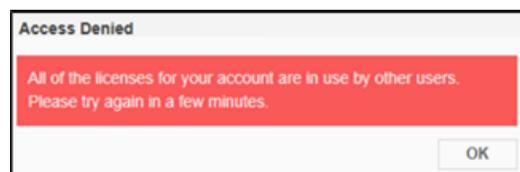
[Solar to Chemical Energy Conversion: Theory and Application](#), 2016

This book explains the conversion of solar energy to chemical energy and its storage. It covers the basic background; interface modeling at the reacting surface; energy conversion with chemical, electrochemical and photoelectrochemical approaches and energy conversion using applied photosynthesis. The important concepts for converting solar to chemical energy are based on an understanding of the reactions' equilibrium and non-equilibrium conditions. Since the energy conversion is essentially the transfer of free energy, the processes are explained in the context of thermodynamics.

[Treatise on Geophysics, 11 Volume Set \(2<sup>nd</sup> Edition\)](#), 2015

This 2nd Edition is a comprehensive and in-depth study of the physics of the Earth beyond what any geophysics text has provided previously. Thoroughly revised and updated, it provides fundamental and state-of-the-art discussion of all aspects of geophysics. A highlight of the 2nd Edition is a new volume on Near Surface Geophysics that discusses the role of geophysics in the exploitation and conservation of natural resources and the assessment of degradation of natural systems by pollution.

Note: For eBooks from Knovel, the PNNL Technical Library purchases only one user seat. If you see this message, please try accessing the title later:



## From the Internet

[The Atlas of Ocean Wealth](#) is the largest collection to date of information about the economic, social and cultural values of coastal and marine habitats from all over the world. It is a synthesis of innovative science, led by The Nature Conservancy (TNC), with many partners around the world.

OCED (2016), [The Economic Consequences of Outdoor Air Pollution](#), OECD Publishing, Paris.

This report provides a comprehensive assessment of the economic consequences of outdoor air pollution in the coming decades, focusing on the impacts on mortality, morbidity, and changes in crop yields as caused by high concentrations of pollutants.

## Tip: Innography's PatentScout



Innography's [PatentScout](#) is available to any staff member who has a pnnl.gov email address, courtesy of Technology Commercialization. Simply enter your email address to set-up a user account and then begin searching. PatentScout delivers critical patent data from a private, secure web-based platform so there's no risk of exposing potential IP strategy. Search for patents using keyword or semantic search and opt to download content in Microsoft Office or Adobe PDF formats. In order to access the site you will need to allow Cookies. PatentScout is also accessible on the Technical Library website via Primo or from the Databases tab. If you need help getting started, view short video tutorials on keyword and semantic search strategies, access a two-page quick reference guide, and more [here](#).

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