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# Environmental Science 2025

in Print and Digital

World Scientific Series on Emerging Technologies: Avram Bar-Cohen Memorial Series

## Next-Generation Cities: An Encyclopedia

(In 4 Volumes)

Volume 1: Design, Arts, Culture and Community

Volume 2: Built and Natural Environment

Volume 3: Mobile, Secure and Sharing Cities

Volume 4: Pathways to Urban Transformation

Editor-in-chief: **Ursula Eicker**  
(Concordia University, Canada)

*Next-Generation Cities: An Encyclopedia* is a curated collection of expert papers and represents the backbone of the work of the Next-Generation Cities Institute at Concordia University in Montréal, Canada. In an interdisciplinary framework, it reflects the collaborative approach necessary to solve complex urban issues. A new model of city building brings together the best practices of many professions and interest groups. The Encyclopedia compiles public and private sector experts, professors, and graduate student contributions in four volumes. It considers the different perspectives, objectives, methodologies, and guidelines for transforming today's cities into inclusive, human-centred, livable, culturally vibrant, resilient and sustainable human settlements.

**Readership:** Policy-makers, researchers and professionals in urban/town planning, architecture, municipal and state governance, infrastructure, and civil engineering.

1200pp  
978-981-128-950-7(Set) **Feb 2025**  
US\$1088 £1000  
978-981-128-944-6(Set) **US\$2048 £1885**  
(ebook)

## Next Generation of Direct Cooling Systems for Tropics

by **Weidong Chen** (National University of Singapore, Singapore), **Zhifeng Huang** (National University of Singapore, Singapore), **Md Raisul Islam** (National University of Singapore, Singapore) & **Ernest Kian Jon Chua** (National University of Singapore, Singapore)

This compendium provides a comprehensive coverage of the latest development of smart district cooling systems in the world today, starting from smart chiller and pumping control and scheduling strategies to recent Artificial intelligence (AI), Machine learning (ML), and blockchain (BC) developments in the field.

The key focus is on the context of urban thermal management integrating district cooling and heating systems and decentralised energy systems. Primary attention is given to new developments in optimized chiller scheduling and smart pumping networks that will markedly impact energy efficiency.

The useful reference text gives a holistic coverage on recent progresses in new district cooling fundamentals and new digital intelligence (AI, ML, BC) developments to new applications employing thermal energy storage.

**Readership:** Researchers, professionals, academics and graduate students in mechanical engineering, systems engineering, energy studies and industrial engineering.

200pp  
978-981-128-512-7 **Jun 2025**  
US\$78 £70  
978-981-128-513-4(ebook) **US\$125 £115**



<https://www.worldscientific.com/page/sustainable-development-goals>

Series on the Science of Climate Change

## Moist Processes in the Climate System

A Global Perspective from Earth Observations

edited by **Graeme L Stephens**  
(Colorado State University, USA)

The volume deals with the understanding the moist processes that determine the supply of water to the atmosphere and back to the surface. The observations of the distribution and variability of clouds and precipitation has emerged as a priority in Earth observational programs. Our ability to observe the amount of water vapor, and the properties of clouds and precipitation by satellites that presently orbit the Earth is unprecedented in the history of space-borne Earth observations. These new capabilities are now delivering important new insights on how water cycles through the Earth's atmosphere and a firmer basis to predict how this water cycle evolves and thus how it may change with climate change.

**Readership:** Graduates and postgraduates in environmental science courses; researchers studying climatology and atmospheric changes.

220pp  
978-1-84816-551-9 **Mar 2025**  
US\$118 £110  
978-1-84816-553-3(ebook) **US\$189 £175**

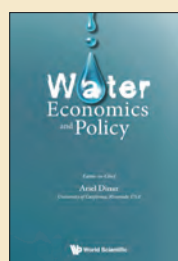
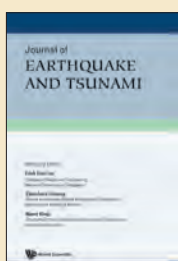
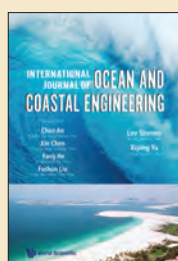
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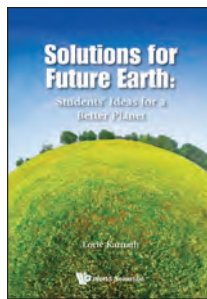
More Journals and Details on page 10 to 12



CLIMATE CHANGE

**Solutions for Future Earth**

Students' Ideas for a Better Planet  
 edited by **Lorie Karnath** (*Molecular Frontiers Foundation, Germany*)



This book considers a subject of crucial importance to all, the future of the planet that we live on. As the world's population continues to grow, the ability to sustain and improve the lives of the earth's inhabitants has incurred tremendous costs. Together all must look for ways to sustain the planet going forward while carefully and fairly managing crucial resources and environmental impact of our actions. We asked high school age students from around the world to weigh in on what they see as the planet's opportunities and challenges going forward, offering their solutions on how to best embrace or mitigate what lies ahead. The book considers the next generation's perspective on what science might hold for the planet's future, including examples of how science is already positioned in many instances to enhance and help sustain our world.

**Readership:** Environmentalists, Green/Eco Warriors, General Audience, anyone interested in the fate of Planet Earth.

<b>350pp</b>	<b>Jan 2025</b>	
<b>978-981-120-642-9(pbk)</b>	<b>US\$38</b>	<b>£35</b>
<b>978-981-3279-17-9</b>	<b>US\$88</b>	<b>£80</b>
<b>978-981-120-497-5(ebook)</b>	<b>US\$141</b>	<b>£130</b>

**Cultured Meat**

Producing Meat without Animals  
 by **Stellan Welin** (*Linköping University, Sweden*) & **Henk P Haagsman** (*Utrecht University, The Netherlands*)

*Cultured Meat* introduces a new technology of producing meat without animals which may bring profound changes in relation to our food consumption, food production, and animals (both the domestic and wild ones). The scientific and technical issues of using animal cells to produce meat as well as the social and ethical questions raised by this new technology are addressed in this book.

**Readership:** Scientists and Students in the areas of food science, tissue engineering, environmental studies, conservation/ wilderness studies; Professional: Policy makers in the area of agriculture and philosopher/ ethicists; General Public: anyone caring about future food production, the environment and animal ethics.

<b>200pp</b>	<b>Mar 2025</b>	
<b>978-981-4632-73-7</b>	<b>US\$106</b>	<b>£100</b>
<b>978-981-4632-74-4(ebook)</b>	<b>US\$170</b>	<b>£155</b>

Advances in Entrepreneurial Economics and Sustainable Development - Vol 2

**Sustainable Development of the Green Entrepreneurial Economy**

edited by **Elena Popkova** (*RUDN University, Russia*), **Elena N Makarenko** (*Rostov State University of Economics, Russia*), **Natalia G ovchenko** (*Rostov State University of Economics Russia*) & **Olga V Andreeva** (*Rostov State University of Economics, Russia*)



This book introduces a new category into the scientific turnover: green entrepreneurial economy. It is treated as an economy of environmental transformations of the business environment in support of sustainable development. The key subject of the green entrepreneurial economy is environmentally responsible business, which implements Sustainable Development Goals (SDGs) in its economic practice.

**Readership:** Scholars who study entrepreneurial economy. Representatives of the business environment: entrepreneurs who support the Sustainable Development Goals.

<b>600pp</b>	<b>Jun 2025</b>	
<b>978-981-129-076-3</b>	<b>US\$168</b>	<b>£155</b>
<b>978-981-129-077-0(ebook)</b>	<b>US\$269</b>	<b>£250</b>

Transformations in Banking, Finance and Regulation - Vol 11

**Handbook of Environmental and Green Finance**

Toward a Sustainable Future  
 edited by **Sabri Boubaker** (*EM Normandie Business School, France*) & **Thai-Ha Le** (*VinFuture Foundation, Vietnam*)



*Handbook of Environmental and Green Finance* contains conceptual, empirical, and policy papers that provide an insightful and timely read for researchers, investors, and policymakers interested in sustainable finance, development finance, and alternative finance to combat climate change. Throughout this book, readers are offered a global analysis of the current state of the sustainable finance sector and provided with potential solutions to address obstacles in this field.

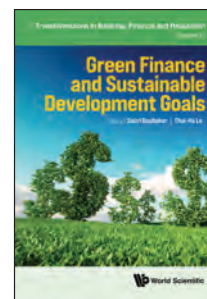
**Readership:** Academic libraries, students (undergraduate, graduate, and post-graduate), and practitioners and policymakers (financial analysts, financial institutions, rating agencies, lawyers, regulators, international organizations, etc.).

<b>476pp</b>	<b>Apr 2024</b>	
<b>978-1-80061-444-4</b>	<b>US\$158</b>	<b>£145</b>
<b>978-1-80061-445-1(ebook)</b>	<b>US\$253</b>	<b>£235</b>

Transformations in Banking, Finance and Regulation - Vol 12

**Green Finance and Sustainable Development Goals**

edited by **Sabri Boubaker** (*EM Normandie Business School, France*) & **Thai-Ha Le** (*VinFuture Foundation, Vietnam*)



The book provides a comprehensive and up-to-date analysis of the relationship between green finance and sustainable development goals, offering insights and potential solutions for researchers, investors, and policymakers. It also includes real-life case studies, empirical analyses, and policy recommendations from scholars around the world, making it a valuable resource for anyone interested in understanding and addressing the challenges of climate change and sustainable finance in the aftermath of the COVID-19 pandemic.

**Readership:** Academic libraries, students (undergraduate, graduate, and post-graduate), and practitioners and policymakers (financial analysts, financial institutions, rating agencies, lawyers, regulators, international organizations, etc.). With conceptual chapters and case studies, this book can be used for class teaching.

<b>420pp</b>	<b>Apr 2024</b>	
<b>978-1-80061-447-5</b>	<b>US\$148</b>	<b>£135</b>
<b>978-1-80061-448-2(ebook)</b>	<b>US\$237</b>	<b>£220</b>

**Industrial Ecology and Sustainability**

A Textbook for Students  
 by **Thomas E Graedel** (*Yale University, USA*) & **Matthew J Eckelman** (*Northeastern University, USA*)

This volume focuses on core topics of industrial ecology and designed as an accessible introduction for students around the world studying sustainability at a time of rapid changes in technology and global change. Written by world-renown experts, the book is suitable for students and professionals interested in the field.

**Readership:** Researchers and advanced undergraduates studying particle physics, atomic physics and quantum field theory.

<b>323pp</b>	<b>Dec 2024</b>	
<b>978-981-12-9614-7</b>	<b>US\$108</b>	<b>£100</b>
<b>978-981-12-9756-4 (pbk)</b>	<b>US\$58</b>	<b>£55</b>
<b>978-981-12-9615-4 (ebook)</b>	<b>US\$173</b>	<b>£160</b>

World Scientific Lecture Notes in Economics and Policy

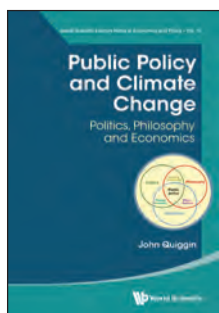
## Public Policy and Climate Change

Politics, Philosophy and Economics by **John Quiggin** (University of Queensland, Australia)

The main focus is on the critical economic concept of opportunity cost: The true cost of anything is what you must give up to get it. In a smoothly functioning market, prices determine, and are determined by, opportunity costs. But markets for the emissions that generate global heating do not operate smoothly, if they exist at all. This book explains how policy responses such as carbon taxes and emissions trading markets are products of these 'market failures'.

**Readership:** Undergraduates studying Politics, Philosophy and Economics (PPE).

<b>250pp</b>	<b>Aug 2024</b>	
<b>978-981-129-061-9(pbk)</b>	<b>US\$48</b>	<b>£45</b>
<b>978-981-129-022-0</b>	<b>US\$88</b>	<b>£80</b>
<b>978-981-129-023-7(ebook)</b>	<b>US\$141</b>	<b>£130</b>



## Navigating in a Pathogenic World

edited by **Lorie Karnath** (SAB Molecular Frontiers Foundation, Germany)

- The book provides perspectives from many of the top scientists in their fields
- It also offers insight into new breakthroughs in combatting the current pandemic and future disease
- The combination of these varied approaches offer a unique consideration of the current challenges that the world now faces as well as for those that lie ahead

**Readership:** Researchers in the field of molecular biology/genetics/nanoscience/cosmology/neuroscience/structural biology/biological, organic and water chemistry; climatologists; general public interested in the transformative areas of science.

<b>320pp</b>	<b>Jan 2025</b>	
<b>978-981-124-306-6</b>	<b>US\$118</b>	<b>£110</b>
<b>978-981-124-307-3(ebook)</b>	<b>US\$189</b>	<b>£175</b>

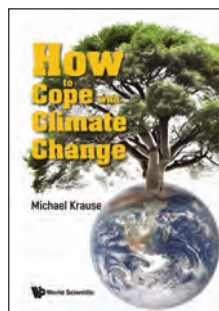
## How to Cope with Climate Change

by **Michael Krause**

Climate change is the ultimate threat in the world today, and it can only be addressed through comprehensive technological and societal transformation. This book examines the financial, technical, and social situation of the world today, and outlines some of the existing policies and technologies that will help us on our long and unpredictable journey through climate change. Three major factors that have led us to today's predicament — our economic system, our own inexcusable ignorance, and continued political inertia — must be addressed, discussed, and changed for the better.

**Readership:** General public, undergraduate and graduate students interested in climate change, green technologies and societal and behavioral change.

<b>372pp</b>	<b>Feb 2024</b>	
<b>978-981-128-739-8(pbk)</b>	<b>US\$38</b>	<b>£35</b>
<b>978-981-128-683-4</b>	<b>US\$88</b>	<b>£80</b>
<b>978-981-128-706-0(ebook)</b>	<b>US\$141</b>	<b>£130</b>



## A Guide to Planning Ecological Townships

Sustainability Performance Indicators and Planning Strategies

edited by **Lai Choo Malone-Lee** (National University of Singapore, Singapore), **Chye Kiang Heng** (National University of Singapore, Singapore) & **Ivan Nasution** (National University of Singapore, Singapore)

- No other comprehensive guidebook on sustainability indicators to support planning and design of ecological townships
- Contains charts and tables of quantitative indicators and qualitative parameters
- Illustrative studies with master planning and concept layouts in full colour

**Readership:** Practising planners, architects, design consultants, developers and policy makers in the fields of urban planning, township design, project administration and sustainability management, as well as academics, researchers and students would find this book useful.

<b>250pp</b>	<b>Sep 2024</b>	
<b>978-981-4733-53-3</b>	<b>US\$82</b>	<b>£75</b>
<b>978-981-4733-54-0(ebook)</b>	<b>US\$131</b>	<b>£120</b>



## Statistics and Modelling of Regional Climate Variability in China

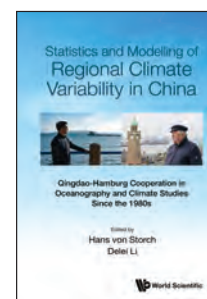
Qingdao-Hamburg Cooperation in Oceanography and Climate Studies Since the 1980s

edited by **Hans von Storch** (Helmholtz-Zentrum Hereon, Germany & Ocean University of China, China) & **Delei Li** (Institute of Oceanology, Chinese Academy of Sciences, China)

- Documents the emerging cooperation between rather different cultures of sciences, in China and in Germany, and the stunning success of students, sent out by China Scholarship Council, in building competence in China to address issues of regional climate variability and change
- Offers valuable insights into various facets of coastal oceanographic and climatic phenomena and underscores the importance of international cooperation in advancing our understanding of the ocean and climate

**Readership:** This book is suitable for regional climatologists and physical oceanographers, as well as postdoctoral and PhD students.

<b>404pp</b>	<b>Aug 2024</b>	
<b>978-1-80061-580-9</b>	<b>US\$148</b>	<b>£135</b>
<b>978-1-80061-581-6(ebook)</b>	<b>US\$237</b>	<b>£220</b>



## Food Security Issues in Asia

edited by **Paul Teng** (Nanyang Technological University, Singapore)

*"Food security is a worldwide problem at this juncture, but represents a special challenge in Asia, especially in city states such as Singapore that depend almost entirely on imports. Poorer nations in the region are also at risk due to rising prices and the scarcity of inputs. Emerging technologies in synthetic biology could be part of the solution. This book frames the problems and addresses the investments needed to drive such technologies. I cannot think of a more important or timely book."*

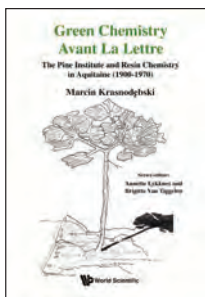


**Ronnie Coffman**  
International Professor Emeritus of Plant Breeding and Genetics, Cornell University, USA

**Readership:** Undergraduate, graduate students and researchers of resin chemistry. Historians, teachers and general public interested in the topic.

<b>350pp</b>	<b>Aug 2024</b>	
<b>978-981-125-285-3</b>	<b>US\$118</b>	<b>£110</b>
<b>978-981-125-286-0(ebook)</b>	<b>US\$189</b>	<b>£175</b>

Analysis: Historical Cases in Chemistry - Volume 1  
**Green Chemistry Avant La Lettre**  
 Pine Institute and Resin Chemistry in Aquitaine (1900–1970)  
 by **Marcin Krasnodębski** (Polish Academy of Sciences, Poland)



This unique book constitutes an original and pioneering work on the origins of some of the ideas that are being labeled today as green or sustainable chemistry.

**Readership:** Undergraduate, graduate students and researchers of resin chemistry. Historians, teachers and general public interested in the topic.

**350pp** **Jul 2024**  
**978-981-12-5285-3** **US\$118** **£110**  
**978-981-12-5286-0 (ebook)** **US\$189** **£175**

## World Scientific Handbook of Transboundary Water Management

Science, Economics, Policy and Politics  
 (In 4 Volumes)

Volume 1: Pursuing Cooperation Over Shared Freshwater Resources Through International Law  
 Volume 2: Technologies on Tap: The Role of Technologies in Transboundary Water Management  
 Volume 3: The Role of Formal and Informal Institutions in Managing Transboundary Basins  
 Volume 4: Transboundary Water Management Across Scales: Understanding the Domestic-International Interplay  
 edited by **Gabriel Eckstein** (Texas A&M University, USA), **David Katz** (University of Haifa, Israel), **Neda A Zawahri** (Cleveland State University, USA) & **Jeroen Warner** (Wageningen University and Research, The Netherlands)

Editor-in-chief: **Shlomi Dinar** (Florida International University, USA)

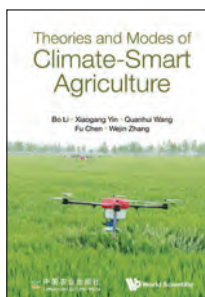
This multi-volume set seeks to contribute to this still burgeoning body of literature by focusing on several key themes that can help explain and recognize successes and failures in transboundary freshwater management. In particular, the set seeks to bring together original scholarship focusing on institutions (formal and informal), international water law, technology, and the nexus of domestic and inter-state affairs.

**Readership:** Academics, scholars, and practitioners of environmental economics, international relations, and international water law. Professionals in public policy and administration. General readers interested in the subject.

**1400pp** **Aug 2024**  
**978-981-129-985-8(Set)** **US\$950** **£875**  
**978-981-129-986-5(Set)(ebook)** **US\$1920** **£1765**

## Theories and Modes of Climate-Smart Agriculture

by **Bo Li** (Ministry of Agriculture and Rural Affairs, China), **Xiaogang Yin** (China Agricultural University, China), **Quanhui Wang** (Ministry of Agriculture and Rural Affairs, China), **Fu Chen** (China Agricultural University, China) & **Wejin Zhang** (Chinese Academy of Agricultural Sciences, China)



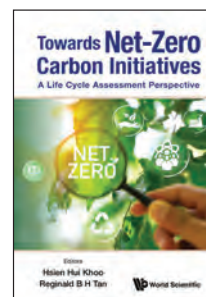
This unique compendium describes the development status and trends of international climate-smart agriculture, research methods and development strategies, monitoring, evaluation and extension, typical cases and their implications for the development of climate-smart agriculture in China.

**Readership:** Researchers, professionals, academics, and graduate students in environmental technology and crop science.

**340pp** **Mar 2024**  
**978-981-128-355-0** **US\$138** **£125**  
**978-981-128-356-7(ebook)** **US\$221** **£205**

## Towards Net-Zero Carbon Initiatives

A Life Cycle Assessment Perspective  
 edited by **Hsien Hui Khoo** (A\*STAR, Singapore) & **Reginald B H Tan** (A\*STAR, Singapore & National University of Singapore, Singapore)



As industrialized nations look into emerging new technologies focusing on renewable or efficient energy use — along with the move towards Sustainable Development Goals — challenges related to achieving low carbon economy projects have gained much attention. This book explores various initiatives and potential methods to achieve net-zero carbon targets and issues.

**Readership:** Life Cycle Analysis Practitioners, Environmental Researchers/Scientists, and Professors.

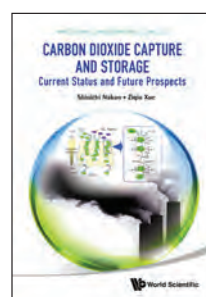
**392pp** **Mar 2024**  
**978-981-127-620-0** **US\$118** **£110**  
**978-981-127-566-1(ebook)** **US\$189** **£175**

## EARTH / PLANETARY SCIENCES

Materials and Energy - Vol 14

## Carbon Dioxide Capture and Storage

Current Status and Future Prospects  
 by **Shinichi Nakao** (Research Institute of Innovative Technology for the Earth (RITE), Japan) & **Ziqiu Xue** (Research Institute of Innovative Technology for the Earth (RITE), Japan)



This book consists of two parts of capture and storage. The capture part introduces the main carbon dioxide capture technologies: Absorption, adsorption and membrane. The chapter of chemical absorption shows the research results of carbon dioxide capture using novel aqueous amine solutions. Amine-modified solid sorbents and hydrophobic adsorbents are introduced in the adsorption chapter. “Molecular gate membrane” developed by RITE (Research Institute of Innovative Technology for the Earth) is described with the latest research results. Such information is valuable and accelerates the technology progress.

**350pp** **Feb 2025**  
**978-981-4612-64-7** **US\$138** **£125**  
**978-981-4612-65-4(ebook)** **US\$221** **£205**

## Weather Dynamics

An Introduction  
 by **Thomas Frisius** (Climate Service Center Germany (GERICS), Germany) & **Klaus Fraedrich** (Max Planck Institute of Meteorology, Germany)



This book is intended for students and laypersons interested in understanding weather activity in the atmosphere. Besides basic knowledge of mathematics and physics, no other prerequisites are necessary for comprehending the material.

**Readership:** Undergraduate, graduate students and laypersons with solid basic knowledge in mathematics and physics, researchers in meteorology and oceanography.

**580pp** **Dec 2024**  
**978-981-127-723-8(pbk)** **US\$78** **£70**  
**978-981-127-628-6** **US\$168** **£155**  
**978-981-127-629-3(ebook)** **US\$269** **£245**



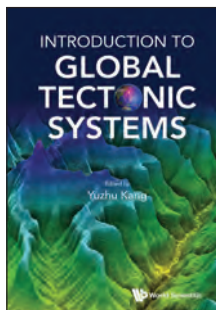
## Introduction to Global Tectonic Systems

edited by **Yuzhu Kang** (*Sinopec Petroleum Exploration & Production Research Institute, China*)

This book analyzes and studies a large number of geological data in the world by dividing the world into eight types of tectonic systems for the first time. It then puts forward the evolution characteristics of each structural system. It also discusses the main controlling factors of the formation of structural systems, and points out that there was no regional metamorphism in the global Paleozoic and some areas of the meso Neoproterozoic.

**Readership:** Advanced undergraduate and graduate students, researchers and practitioners in the fields of Earth Sciences.

316pp Mar 2024  
 978-981-128-555-4 US\$108 £100  
 978-981-128-556-1(ebook) US\$173 £160



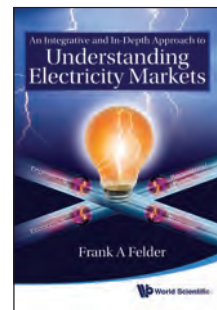
## An Integrative and In-Depth Approach to Understanding Electricity Markets

by **Frank A Felder** (*Rutgers University, USA*)

This book presents an integrative and in-depth approach to understanding electricity markets. It combines engineering, economics, and regulatory and public policy, with business analysis. The first part of the book presents the key concepts in these fields relevant to the study of electricity markets. Starting with power engineering basics, the book proceeds to explain how these engineering fundamentals, combined with economic and regulatory theory, are used to design and operate successful electricity markets. With this foundation, business analyses of all sectors of the electric power industry — generation, transmission, distribution, retail supply, energy efficiency, and demand response — are conducted. The second part of the book contains several chapters on advanced electricity market topics that use the integrative approach developed in the first section. These advanced topics include the history of restructured electricity markets, regulating electricity derivatives, and how to run an energy services company.

**Readership:** Graduate students; researchers in engineering, law and public policy; professionals at Independent Systems Operators, public utility commissions, and public policy; engineers, lawyers and economists.

200pp Feb 2025  
 978-981-283-829-2 US\$85 £80



## The Evolution of Global Crustal Uplift and Depression

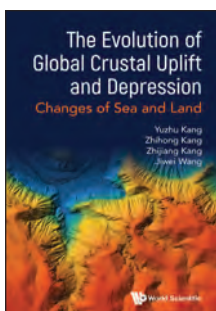
Changes of Sea and Land

by **Yuzhu Kang** (*Sinopec Petroleum Exploration and Production Research Institute, China*), **Zhihong Kang** (*China University of Geosciences (Beijing), China*), **Zhijiang Kang** (*Sinopec Petroleum Exploration and Production Research Institute, China*) & **Jiwei Wang** (*Sinopec Petroleum Exploration and Production Research Institute, China*)

In this book, many case studies are better explained by global crustal uplift and sea-land evolution. Namely, that the entire continents of the world are indivisible, and the changes of each land block over geological periods resulted from the sea-land changes. The book further develops the original “geomechanics theory” created by the famous geologist Li Siguang. As a vibrant and highly rigorous work, Prof Li’s book offered important theoretical guidance that enriched the global geological community and led to a re-development within geological science. The strong response highlights the significance of geomechanics theory and our theories that build upon it in this book.

**Readership:** Advanced undergraduate and graduate students, researchers and practitioners in the fields of Earth Sciences.

220pp Apr 2024  
 978-981-128-606-3 US\$88 £80  
 978-981-128-607-0(ebook) US\$141 £130



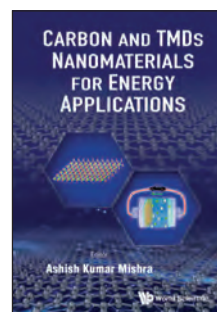
## Carbon and TMDs Nanomaterials for Energy Applications

edited by **Ashish Kumar Mishra** (*Indian Institute of Technology, India*)

This book covers the detailed information from material synthesis to energy generation and storage, researched till date. Some new applications have been introduced in this book. Experts in the particular field have contributed in their book chapter. Most of them are having around two decade of experience.

**Readership:** Advanced undergraduate and graduate students, researchers and practitioners in the fields of material science, energy science and related fields.

312pp Feb 2024  
 978-981-128-339-0 US\$108 £100  
 978-981-128-340-6(ebook) US\$173 £160



## ENERGY

### Precise Energy

A Missing View on Batteries

edited by **Kai Peter Birke** (*University of Stuttgart, Germany*), **Sabri Baazouz** (*Fraunhofer Institute for Manufacturing Engineering and Automation, Germany*) & **Julian Grimm** (*Fraunhofer Institute for Manufacturing Engineering and Automation, Germany*)

Achievable energy densities dominate important future research activities on battery technology. This book deduces in detail the future options for energy density enhancement of rechargeable battery cells and complete batteries. It connects rechargeability to energy density limits and gives a detailed argumentation on how and when battery energy densities will achieve their inherent limits.

**Readership:** Researchers, postgraduate and advanced undergraduate students, industry professionals, specialising in battery cell R&D and manufacturing, as well as governments and civil servants who wish to understand the topic.

250pp Apr 2025  
 978-981-128-204-1 US\$88 £80  
 978-981-128-205-8(ebook) US\$141 £130

World Scientific Series in Nanoscience and Nanotechnology - Vol 24

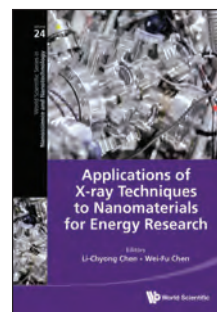
### Applications of X-ray Techniques to Nanomaterials for Energy Research

edited by **Li-Chyong Chen** (*National Taiwan University, Taiwan*) & **Wei-Fu Chen** (*Lyten Inc, USA*)

Nanomaterials have become a key component for energy-related applications. Their design principle, synthesis and applications are well discussed in various scientific and engineering books, but a gap remains in discussions regarding the application of cutting-edge X-ray techniques to these materials. This volume provides insights from the latest development of X-ray techniques to investigate nanomaterials in specific energy fields, bridging the gap between X-ray analytical scientists and material researchers.

**Readership:** Advanced undergraduates, graduate students, researchers and scientists in chemical, material, battery and energy industries.

300pp Feb 2024  
 978-981-128-463-2 US\$108 £100  
 978-981-128-464-9(ebook) US\$173 £160



Series in Energy Transition, Carbon Neutrality, and Sustainability

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Developing Carbon Capture, Utilisation and Storage Technologies

edited by **Phumin Han** (*Economic Research Institute for ASEAN and East-Asia, Indonesia*) & **Rabindra Nepal** (*University of Wollongong, Australia*)



- Analyses Carbon Capture, Utilisation and Storage (CCUS) development and deployment — technology, economics, finance and policy
- Presents CCUS as a technological solution to achieve carbon neutrality
- Documents wide ranging evidences of CCUS development in ASEAN

**Readership:** Academics, researchers and practitioners interested in energy economics, with particular focus on ASEAN economies.

330pp Sep 2024  
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## Introduction to Emerging Fields in Materials Sustainability

by **Pankaj Pathak** (*SRM University Andhra Pradesh, India*), **Susmita Sharma** (*National Institute of Technology Meghalaya, India*), **Ramadoss Tamil Selvan** (*National University of Singapore, Singapore*) & **Seeram Ramakrishna** (*National University of Singapore, Singapore*)



*"This excellent new book covers important concepts of sustainability focusing on materials and their waste streams. The impressive team of authors use their insight to explore water management, food, waste management, plastics, electronics, and construction sectors, complementing this with a general introduction to the basic concepts of sustainability and the role of different materials."*

**Paul Hogg**  
 Professor, Royal Holloway University of London, UK

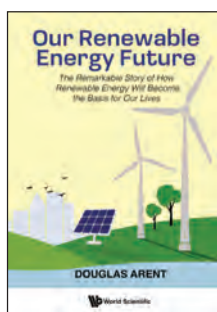
**Readership:** Undergraduate and graduate students enrolled in Environmental Science/Chemistry/Economics/Engineering, Material Science, Engineering and Business School. Emerging entrepreneurs, academics/researchers, industry professionals, and companies working on sustainable development and/or waste management will also be interested.

200pp Jul 2025  
 978-981-124-764-4 US\$78 £70  
 978-981-124-765-1(ebook) US\$125 £115

## Our Renewable Energy Future

The Remarkable Story of How Renewable Energy Will Become the Basis for Our Lives

by **Douglas Arent** (*National Renewable Energy Laboratory, USA*)



The book offers fresh insights into how technology, economics, social dynamics, policy, and geopolitics are forces at play, affecting our energy future.

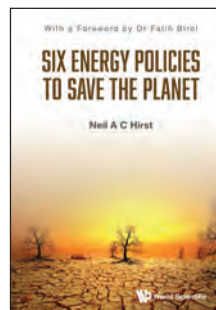
**Readership:** Academia: undergraduate and graduate students, research staff. Industry: energy sector, vehicles/transportation, oil and gas. NGOs and governments: policy and program leaders, advocates. Consultancies: practitioners, consultants, advisors. Lay readers interested in our collective energy future.

200pp May 2024  
 978-1-80061-606-6(pbk) US\$48 £45  
 978-1-80061-493-2 US\$88 £80  
 978-1-80061-494-9(ebook) US\$141 £130

## Six Energy Policies to Save the Planet

by **Neil A C Hirst** (*Imperial College London, UK*)

With a Foreword by **Dr Fatih Birol**



*Six Energy Policies to Save the Planet* takes stock of the situation today, reviews the potential of the available technologies, and examines the interlocking roles of business, public opinion, and government. It considers the geopolitics of climate change including the relations between rich and poor countries, and between China and the West. Recognising that much of the decision-making has now passed to the developing world, it outlines the perspectives of some of the most important players. The final chapters assess the current state of international energy governance and propose reforms.

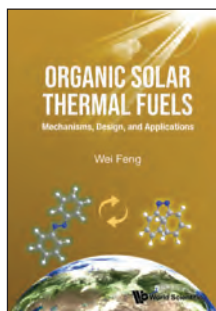
**Readership:** Suitable for reading lists for courses on environmental studies at both undergraduate and Masters level. Lay readers with a special interest in energy policy and climate change especially those teaching or working in related areas, including government policy makers, can also benefit from this book.

200pp May 2024  
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 978-1-80061-499-4 US\$58 £55  
 978-1-80061-500-7(ebook) US\$98 £90

## Organic Solar Thermal Fuels

Mechanisms, Design, and Applications

by **Wei Feng** (*Tianjin University, China*)



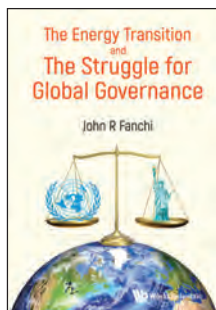
This book explores the types, characteristics, preparation, testing, applications, and future trends of small organic molecules, polymers, and nanocomposites for solar heat storage. Through the functionalization, composite and ordered structure design, and function-oriented assembly of organic molecules, new micro-nano-superstructure composites with multi-level pore structure, multi-scale network structure, and multi-group interface structure can be constructed, which can greatly improve the energy storage and controllable release performance of existing photothermal fuels. All the basic aspects and technology-oriented developments in this emerging discipline will be covered within this comprehensive and timely book.

**Readership:** Advanced undergraduate and graduate students, researchers and practitioners in the fields of materials science, chemical science, polymer science, composite materials science, and optical engineering, nanoscientists, environmental scientists, and engineers.

280pp May 2024  
 978-981-128-584-4 US\$98 £90  
 978-981-128-585-1(ebook) US\$157 £145

## The Energy Transition and the Struggle for Global Governance

by **John R Fanchi** (*Texas Christian University, USA*)



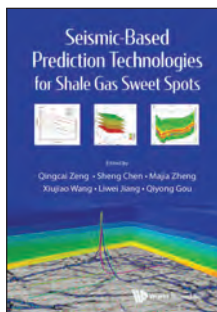
Events around the world have shown that the energy transition is more likely to be chaotic rather than peaceful as nations around the world engage in a struggle to achieve global governance. This unique compendium of useful information will help readers understand how the desire to implement an energy transition is being used to catalyze a change in the modern world order. The book concludes with the identification of possible world orders that might emerge after the energy transition.

**Readership:** Professionals, academics, researchers and graduate students in energy studies.

275pp Aug 2024  
 978-981-129-019-0 US\$58 £55  
 978-981-129-020-6(ebook) US\$98 £90

## Seismic-Based Prediction Technologies for Shale Gas Sweet Spots

edited by **Qingcai Zeng** (*PetroChina Research Institute of Petroleum Exploration and Development, China*), **Sheng Chen** (*PetroChina Research Institute of Petroleum Exploration and Development, China*), **Majia Zheng** (*PetroChina Southwest Oil & Gas Field Company, China*), **Xiujiao Wang** (*PetroChina Research Institute of Petroleum Exploration and Development, China*), **Liwei Jiang** (*PetroChina Zhejiang Oilfield Company, China*) & **Qiyong Gou** (*Shale Gas Research Institute of PetroChina Southwest Oil & Gasfield Company, China*)



This book is a useful guide for researchers involved in the technological innovation and production of shale gas exploration and development. It offers a thorough understanding of seismic technologies and their application in shale gas exploration and extraction.

This book comprehensively and systematically presents the significance of seismic technologies in predicting shale gas sweet spots. It introduces state-of-the-art seismic-based prediction technologies as well as case studies showcasing their implementation in primary shale gas production areas in China. Innovativeness is one of the highlights of this book. Cutting-edge technologies, such as AI applied in identifying shale gas sweet spots, and achieving excellent results in shale gas production are presented.

Readers will gain insights into the latest methodologies, models, and real-world examples, equipping them with the necessary tools to navigate the complex landscape of shale gas resources.

**Readership:** Researchers engaged in shale gas exploration, development and production practice, as well as students of related majors in colleges and universities.

260pp Jul 2024  
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 978-981-128-318-5(ebook) US\$157 £145

## ENVIRONMENTAL MANAGEMENT

### Sustainable Management of Invasive Species

edited by **Ming Hung Wong** (*The Education University of Hong Kong, Hong Kong & Consortium on Health, Environment, Education, and Research (CHEER), USA*) & **Timothy R Seastedt** (*University of Colorado, USA*)



This comprehensive and innovative work addresses the intersection of invasive species management and climate resilience. Researchers have claimed that invasive species are the dominant biological threat to the functioning of our planet; whilst arguably true, humans are now concurrently affecting climate resilience. Bringing together experts from around the world, this book provides a nuanced evaluation of the management issues of invasive species driven by net benefits and threats, acknowledging that such species may also offer solutions towards addressing climate change mitigation and adaptation.

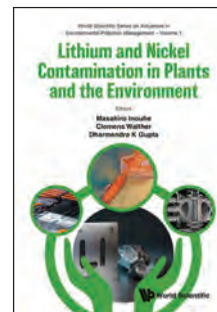
**Readership:** Undergraduate and graduate level for courses in Environmental Management. Researchers, consultants and emerging professionals involved in areas such applied ecology, ecological-engineering, global change biology efforts, and biodiversity and climate change solutions.

400pp Aug 2024  
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 978-1-80061-584-7(ebook) US\$237 £220

World Scientific Series on Advances in Environmental Pollution Management - Vol 1

### Lithium and Nickel Contamination in Plants and the Environment

edited by **Masahiro Inouhe** (*Ehime University, Japan*), **Clemens Walther** (*Gottfried Wilhelm Leibniz University Hannover, Germany*) & **Dharmendra K Gupta** (*Ministry of Environment, Forest and Climate Change, India*)



This edited volume brings together a diverse group of environmental science, sustainability and health researchers to address the challenges posed by global mass poisoning caused by lithium and nickel contamination of soil and plants. The book sheds light on this global environmental issue and proposes solutions to contamination through multi-disciplinary approaches and case studies from different parts of the world.

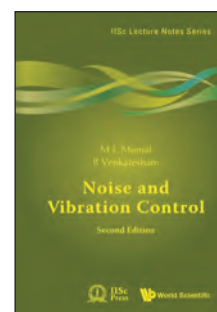
**Readership:** Teachers, and advanced undergraduate and graduate students in related fields, especially those specializing in the remediation of heavy metals and metalloids.

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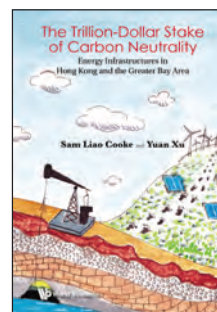
**Readership:** Researchers, professionals, academics, and senior graduate students in mechanical engineering and environmental engineering.

375pp Sep 2024  
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 978-981-128-315-4(ebook) US\$221 £205

### The Trillion-Dollar Stake of Carbon Neutrality

**Energy Infrastructures in Hong Kong and the Greater Bay Area**

by **Sam Liao Cooke** (*The Chinese University of Hong Kong, Hong Kong*) & **Yuan Xu** (*The Chinese University of Hong Kong, Hong Kong*)



- This book provides a bottom-up approach and detailed accounting of energy infrastructures to diagnose the massive stake of carbon neutrality
- This book's unique, bottom-up approach to investigate individual infrastructure projects in detail, brings carbon neutrality much closer to potentially affected stakeholders in the larger carbon-neutral race
- This book is an invaluable resource for professionals, industry players, and academic courses addressing energy resources, climate change and CO<sub>2</sub> mitigation

**Readership:** Governments, policy-makers, businesses, and decision-makers interested in carbon neutrality.

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This is the first holistic treatment of multidisciplinary aspect of ecohydraulics that bridges from theory to applications and integrates sampling methodologies, remote sensing, hydraulic modeling, water quality, sediment transport, ecological modeling and interdisciplinary assessment frameworks.

**Readership:** This book is intended for students and professionals in the integrated engineering and ecological disciplines.

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Series on Quality, Reliability and Engineering Statistics

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**Michael Sheh** (Engineous Software Inc., USA) &  
**Malik Kayupov** (Engineous Software Inc., USA)

Design for Six Sigma (DFSS) is a systematic approach for manufacturing companies to address product and process issues at the early development stage. Through inventive thought processes, early error elimination, and robust design, DFSS has dramatically impacted product quality and performance and increased profit. In this comprehensive volume, the four-phase IDOV — Identify-Design-Optimize-Verify — DFSS methodology is discussed in detail. The various practices from inventive design methodologies, deterministic and stochastic numerical methods, and the use of CAE simulation techniques, are mapped to the DFSS procedure. Many case studies are used to illustrate how tools are used in DFSS processes.

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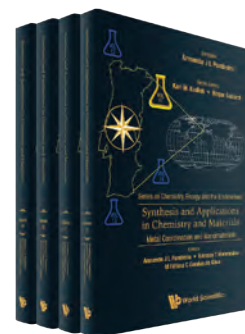
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Chemistry and Material Sciences naturally depend greatly on Synthesis as the initial stage for the existence of compounds and materials with desired behaviors, within the overall streamline of Design/Synthesis — Properties — Application/Function, and their relations. Such a general approach is of a too wide scope to be properly treated in a single set of publications, but this one on “Synthesis and Applications in Chemistry and Materials” restricts itself by aiming to show the strength and international character of the current research in synthetic chemistry that is being developed in Portugal or abroad by teams that cooperate with this country.



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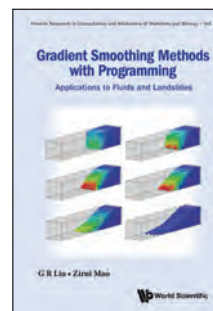
Frontier Research in Computation and Mechanics of Materials and Biology - Vol 5

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**Zirui Mao** (Pacific Northwest National Laboratory, USA)

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**Readership:** Researchers, professionals, academics, and graduate students in engineering mechanics, numerical analysis, environmental engineering and earthquake engineering.

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**Coastal Management in the Face of Climate Change**

by **Dominic Reeve** (University of Plymouth, UK)

The book is aimed at practicing coastal managers and engineers; to provide some practical guide to using the results of research efforts over the last decade. The material is also suitable for final year undergraduates and MSc students. It brings together in one book material that is currently dispersed across many sources which are not easy for the non-expert to access.

**Readership:** Graduate students, practitioners, and researchers in coastal engineering, civil engineering, environmental management and planning and environmental engineering.

200pp Aug 2025  
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978-1-84816-584-7(ebook) US\$170 £155

## Stationarity

A Gentle Introduction

by **Ramesh S V Teegavarapu** (Florida Atlantic University, USA) & **Priyank J Sharma** (Indian Institute of Technology Indore, India)

This unique compendium focuses on the use and applications of the state-of-the-art exploratory data analysis and statistical methods to understand the concept of stationarity and assessment based on hydroclimatic data. Stationarity assessment is the key for hydrologic design, particularly in the context of changing climate.

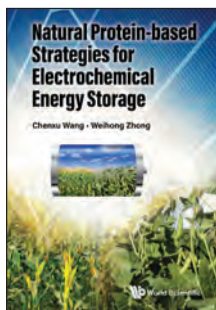
**Readership:** Researchers, professionals, academics, and graduate students in hydrology, climate change and climatology.

300pp Nov 2024  
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## Natural Protein-based Strategies for Electrochemical Energy Storage

by **Chenxu Wang & Weihong Zhong** (Washington State University, USA)

*"This is a timely publication to introduce the recent progress of protein applications in energy storage devices. Protein engineering has been used in the biomedical and tissue engineering fields but is still novel in energy storage applications. Such a summary of the global research on engineered proteins for energy storage benefits academia and industry alike and would help to propel further development of the field."*



**Long Jiang**

Associate Professor, North Dakota State University, USA

Electrochemical energy storage (EES) is increasingly critical for development and applications of numerous technologies or new products, such as portable electronics, electric vehicles, and large-scale energy storage systems. The expanding market of EES requires products that are low cost, environmentally friendly, and with high energy density. Natural proteins are abundant biomacromolecules and possess numerous useful functional groups through millions of years of evolution. By the rational control of the protein molecular architectures, we can effectively develop important component materials with functionalities for energy storage systems via appropriately utilizing the functional groups of proteins. Therefore, tremendous research efforts on application of natural proteins for enhancing the performance of EES have been reported. In this book, advanced strategies for adopting various natural proteins to development of the components of EES are comprehensively summarized.

**Readership:** This book is a useful reference for academics, researchers and graduate students working in the field of energy storage, battery science, electrochemistry, natural products, protein engineering, and materials science.

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 978-981-128-384-0 US\$108 £100  
 978-981-128-385-7(ebook) US\$173 £160

## Sensors and the Internet of Things

Acquisition and Use of Big Data

by **Alexander W Koch** (Technical University of Munich, Germany)

This book offers a structured understanding of sensor technologies, principles, applications, and their integration into IoT systems, thereby bridging the gap between sensors and IoT applications.

**Readership:** Advanced undergraduate and graduate students and practitioners in the fields of computer science, engineering, measurement systems, and physics; and scientists, engineers, and decision makers in industry.



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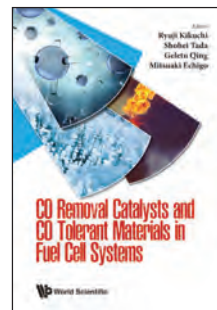
## CO Removal Catalysts and CO Tolerant Materials in Fuel Cell Systems

edited by **Ryuji Kikuchi** (The University of Tokyo, Japan), **Shohei Tada** (Seikei University, Japan), **Geletu Qing** (Michigan State University, USA) & **Mitsuaki Echigo** (Osaka Gas Co., Ltd, Japan)

This book analyses the vast existing research on CO and CO<sub>2</sub>; methanation to find key issues to perform CO methanation selectively and demonstrates the process experimentally in an actual reactor scale. It also offers a focus on a new deep CO removal process in polymer electrolyte fuel cells (PEFCs), including selective CO methanation catalysts and reactors, along with conventional CO abatement processes such as water gas shift and preferential oxidation of CO (PROX). In addition, related CO removal techniques and current fuel cell systems are presented.

**Readership:** Catalyst researchers, chemical engineer, and chemist; advanced undergraduates and graduate students interested in hydrogen production and fuel cell.

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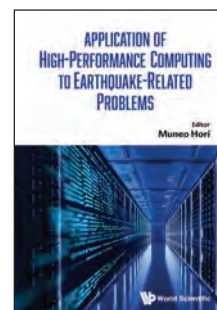
## Application of High Performance Computing to Earthquake Related Problems

edited by **Muneo Hori** (Japan Agency for Marine-Earth Science and Technology, Japan)

This major reference summarizes the theory, analysis methods, and computational results from supercomputers of various earthquake simulations using supercomputers. It covers simulations in the fields of physical geology, earthquake engineering — specifically the seismic response of structures — and the socioeconomic impact of post-earthquake recovery on cities and societies. These simulations provide an effective bird's-eye view of earthquake occurrence, earthquake damage, and recovery from the damage.

**Readership:** Researchers in the fields of earth sciences, earthquake engineering, disaster-related social science; Advanced undergraduate and graduate students in the fields of earth sciences, earthquake engineering, disaster-related social science.

600pp May 2024  
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Emerging Issues and Trends in Indian Business and Management - Vol 2

## Business and Society

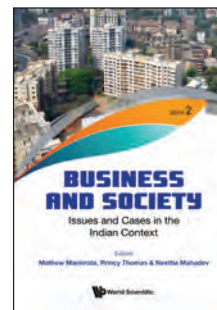
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edited by **Mathew Manimala** (Indian Institute of Management, India), **Princy Thomas** (CHRIST (Deemed to be University), India) & **Neetha Mahadev** (BNM Institute of Technology, India)

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- Covers a wide range of issues relating to the relationship between business and society, both relating to and beyond social entrepreneurship
- Focuses on the normative development of organizational development

**Readership:** Academic researchers, practitioners and policymakers who are interested in the relationship between business and society, and how the two fields interact with each other, in an Indian context.

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**Editor-in-Chief:** Farhad Taghizadeh Hesary (Tokai University, Japan)

An interdisciplinary, peer reviewed, international journal covering policy and decision-making relating to environmental assessment (EA) in the broadest sense. Uniquely, its specific aim is to explore the horizontal interactions between assessment and aspects of environmental management and decision-making, as well as the vertical interactions within the broad field of impact assessment. Ultimately, the journal aims at identifying comprehensive approaches to environmental improvement involving both qualitative and quantitative information. As the concepts associated with sustainable development mature, links between environmental assessment and management systems become all the more essential. The focus of the journal is on policy, procedures and law covering project and policy formulation, development and implementation, public participation and the institutional basis for EA. The journal aims to provide a forum for imaginative and creative thinking around the theoretical and empirical foundations of environmental assessment and management.

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### Journal of Earthquake and Tsunami (JET)

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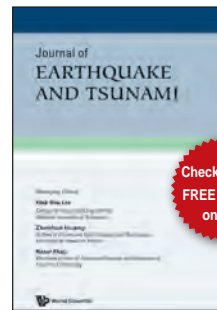
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This journal provides a common forum for scientists and engineers working in the areas of earthquakes and tsunamis to communicate and interact with one another and thereby enhance the opportunities for such cross-fertilization of ideas. The Journal publishes original papers pertaining to state-of-the-art research and development in Geological and Seismological Setting; Ground Motion, Site and Building Response; Tsunami Generation, Propagation, Damage and Mitigation, as well as Education and Risk Management following an earthquake or a tsunami.

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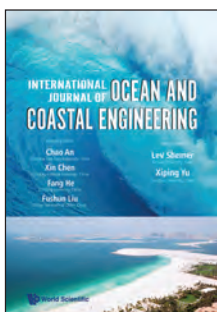
**Editors-in-Chief:**

**Lev Shemer** (Tel Aviv University, Israel)

**Xiping Yu** (Tsinghua University, China)

The scope of this journal encompasses experimental, computational, and theoretical aspects of ocean and coastal engineering, as well as closely-related subjects and meaningful applications, whose composition will evolve continuously to respond to emerging new areas and directions in modern science, engineering and technology.

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Present and future global warming research must be increasingly based on big datasets at terabyte and exabyte scales from diverse sources (e.g. climate, ocean, economy, energy, ecosystem dynamics, industry, agriculture, environment, public's attitude/knowledge surveys). The "International Journal of Big Data Mining for Global Warming" is an inter-disciplinary journal dedicated to the publication of high-quality research articles, review articles, letters, case studies and book reviews in all aspects of global warming through traditional mining methods (statistical, spectral, numerical, simulating, LCA, 3E, etc.) and non-traditional mining methods (neural networks, deep learning, cloud computing, etc.) of these big datasets.

Topics to be covered: • Monitoring, diagnosis, and predictions of global warming trends and their impacts • Applications of artificial neural networks and deep learning in weather, climate and disaster predictions • Data-driven ecological/environmental impact assessments within the context of global warming impacts & others.

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Editor-in-Chief

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(Yale University, USA)

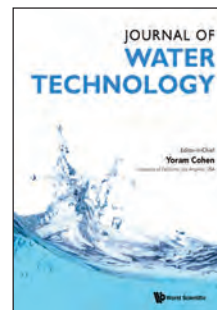


*Climate Change Economics* (CCE) publishes theoretical and empirical papers devoted to analyses of mitigation, adaptation, impacts, and other issues related to the policy and management of greenhouse gases. CCE is specifically devoted to papers in economics although it is understood that authors may need to rely on other fields for important in-sights. The journal is interested in papers examining the issue at every scale from local to global and papers from around the world are encouraged. CCE is also interested in both original research and review papers and welcomes comments discussing previous articles.

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### Journal of Water Technology (JOWT)

<https://www.worldscientific.com/jowt>



Editor-in-Chief: Yoram Cohen

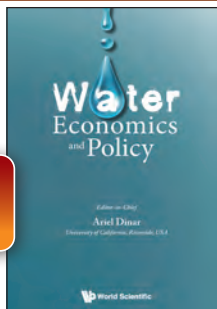
(University of California, Los Angeles, USA)

An international, peer-reviewed journal, that aims to provide a platform for the dissemination of high-quality research and innovations related to the technology and management of water resources. The burden on freshwater resources is increasing due to the impacts of global climate change, population growth and rising demand from the domestic sector, industry and intensive agriculture. Excessive withdrawals from aquifers and freshwater bodies are rapidly depleting freshwater resources and, therefore, developing a diversified water portfolio along with distributed water treatment and desalination is critical for meeting water needs across the globe. The path to water sustainability is complex, since water, energy, and food are inextricably linked. As such, there can be many different approaches to water technology. It is acknowledged that the viability of various technologies, for deployment beyond the research environment, will require considerations of environmental, economic and policy issues, particularly regarding the growing efforts in water reuse, seawater desalination and upgrading of impaired groundwater resources. Moreover, it is critical to address the growing need for water treatment/purification/desalination systems are increasingly being developed with the objective of fit-for-purpose applications. Given the above challenges, and the need to progress toward sustainable and economically realizable water supplies. JOWT welcomes high-quality scientific papers that address (but are not limited to) the following topics: • Fundamental science and engineering with real-world applications to improvements in water supply, production and reuse • Improving water treatment, purification and desalination technologies • Advances relating to recycled water, brackish inland water, industrial process water, produced water and agricultural water • Process and operational design to improve system resilience and robustness • Sustainable water resources – energy optimization, cost-effective solutions • Material science advances that contribute to improvement of water technologies • Intelligent water systems driven by AI, water systems cyberinfrastructure and Big Data • Circular economy in relation to water sustainability • Operational security of water systems • Handling of process residual streams • Multi-community and cost-effective shared solutions.

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### Water Economics and Policy (WEP)

<https://www.worldscientific.com/wep>



Editor-in-Chief

Ariel Dinar  
(University of California, USA)



Water resources management and other water-related decisions and policies are frequently guided by economic dimensions. Economic considerations, including efficiency, equity, production, allocation, and pollution, have expanded as water resources have become scarcer both in terms of quantity and quality. While economic analyses applied to the water sector are useful and educational, their policy implications are less obvious for guiding policymakers. *Water Economics and Policy* (WEP) will address the economic-policy interaction by publishing highly technical water economics research with clear relevance for policy. WEP will aim to target a wide range of economic questions at local, regional, national and international levels. It will accommodate work that is focused on specific sectors (such as urban, hydropower, irrigation, and environment) as well as work that is inter-sectoral in nature.

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### Journal of Climate Action, Research, and Policy (JOCARP)

Addressing Climate Challenges, Risk, and Opportunity

<https://www.worldscientific.com/jocarp>



Editor-in-Chief: Jan W. Dash (Editor, *World Scientific Encyclopedia of Climate Change*)

JOCARP's vision is a pioneering open access journal, with the unique focus of providing solid science-based and action-oriented resources catalyzing the implementation of more urgent, substantial, and pivotal climate action solutions by business of all types, government at all levels, academia, and non-governmental organizations (NGOs).

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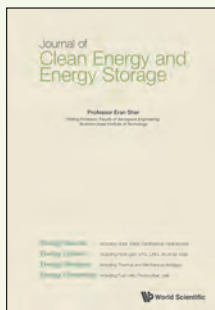
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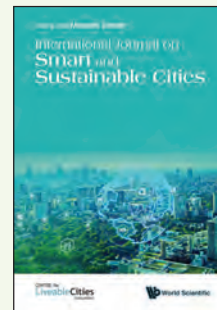
**Editor-in-Chief: Eran Sher**  
(Technion-Israel Institute of Technology)

**Journal of Clean Energy and Energy Storage** provides a unique platform for exchanging knowledge, innovative ideas, research, and development in the areas of clean energy conversion and energy storage. The scope of the Journal includes analysis and optimization of clean energy processes, sustainable energy systems, and mitigation of environmental pollutants, with a focus on engineering applications. The journal publishes high-quality original manuscripts, review articles, vision articles, and short communications. The Journal coverage ranges from innovative technologies of clean renewable energy to energy storage issues, its impact on the environment, and economic assessments of clean energy projects. Critical debates related to these issues are encouraged and welcome.

### International Journal on Smart and Sustainable Cities (IJSSC)

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**Editor-in-Chief: Alexander Zehnder**  
(Nanyang Technological University, Singapore)

This International Journal is a biannual publication which aims to provide a platform for global interdisciplinary research that is at the nexus of urban science and technology, sustainable development, urban planning and resilience, with a focus on the Asia-Pacific region. It accepts high-quality research papers, review papers, insights, and opinions from practitioners and policy makers in, but not limited to, the following topics: i. complexity science for cities ii. application of digital humanities and citizen science to address city challenges iii. the use of emerging technology such as artificial intelligence, big data, advancements in modelling and visualization, cloud computing, and/or Internet of Things to enhance liveability, sustainability, restorative, regenerative and/or wellbeing benefits in urban systems such as food, energy, water, etc. iv. other related topics.

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**Editors-in-Chief: Ursula Eicker** (Concordia University, Quebec, Canada) & **Peter Marcotullio** (Hunter College, City Univ. of New York, USA)

The **Journal of Urban Futures** aims to encourage substantive research and generate knowledge for building sustainable urban futures, the backbone of a sustainable planet. It welcomes new knowledge about projecting, forecasting and backcasting urban sustainable development in individual cities and within urbanization processes. The objectives of the journal are to highlight multi-level research from the neighborhood to the urban and global scale that addresses the future of livable, sustainable and resilient cities. Fundamental to the urban transformation is the decarbonization challenge to fight climate change, which involves the switch to renewable resources and energy efficiency in all urban infrastructure sectors. With urban planning at the core of the city (infra)structure, subjects can also include technological innovations such as the use of IoT for smarter and sharing urban solutions as well as socio-economic transformations that will influence circular economic activity, financial markets, internalization of externalities in production dynamics, economic and social urban resilience and sustainability.

### Interdisciplinary Journal of Sustainable Oceans and Coasts (IJSOC)

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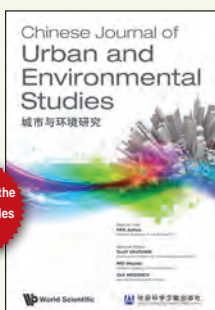
This is an international open-access online journal interrogating the interactions of earth systems in oceans and coastal zones.

IJSOC will publish original research, reviews and perspective articles that aim to increase our understanding of the world's complex oceans and the coastal zones that connect them to related land-based systems. In particular, it is intended that the articles published by the IJSOC community may help to develop and inspire action supporting the UN Sustainable Development Goals. Safeguarding and augmenting the well-being of our oceans and coasts is imperative for our sustainable future, and so it is necessary to take collective action in order to make meaningful progress. The sensitive interfaces between the vast, hidden expanses of the ocean and the diverse array of terrestrial landforms make up the coastal zone. Coastal zones are defined as the area over land impacted by processes starting over the oceans and the area over the ocean influenced by processes that start over land. In the context of earth systems, these processes are natural but can also be social, economic, political, public health, and security related. Marine and coastal zone processes influence the life of every human being either directly or indirectly through cascading consequences within the coupled human-natural earth system.

### Chinese Journal of Urban and Environmental Studies (CJUES)

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