

The image features a complex, abstract background of green, faceted geometric shapes that create a sense of depth and movement, resembling a tunnel or a futuristic architectural structure. A bright, glowing circular opening is positioned in the center, drawing the viewer's eye. The overall color palette is dominated by various shades of green, from deep forest green to bright, almost white highlights.

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# **TECHNOLOGY & ENGINEERING**

**2024 CATALOGUE**

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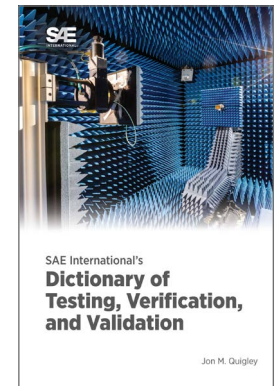
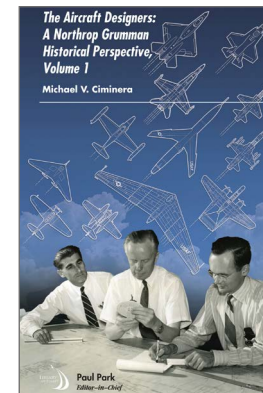
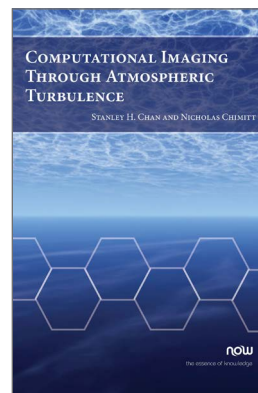
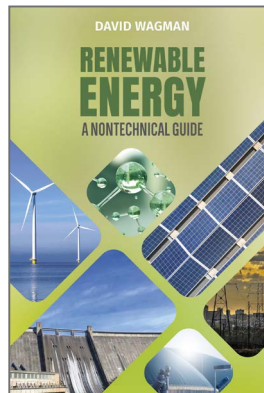
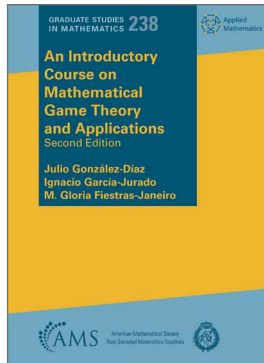
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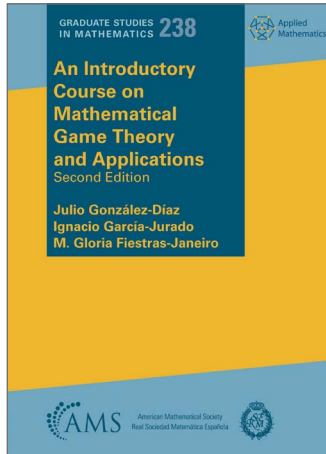
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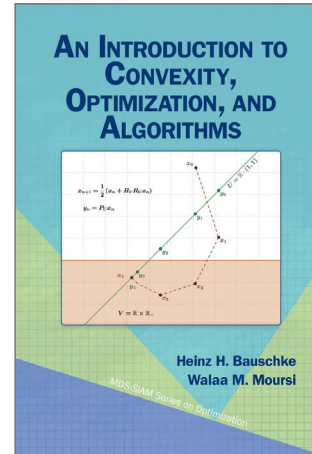
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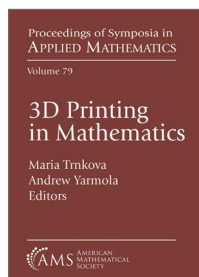
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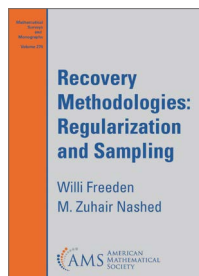
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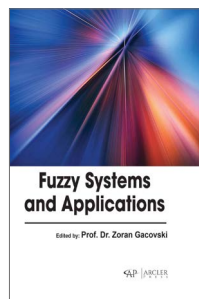
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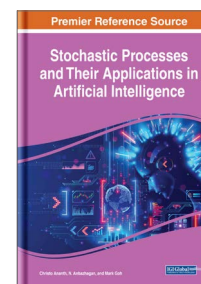
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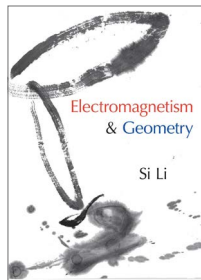
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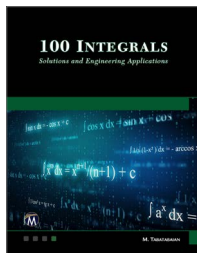
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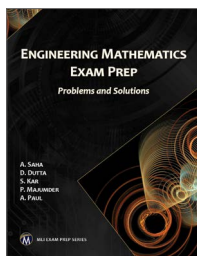
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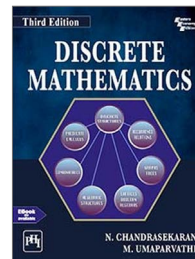
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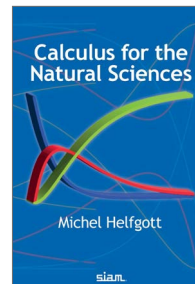
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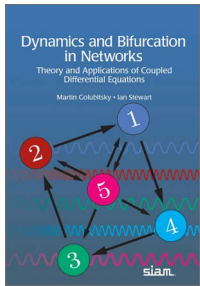
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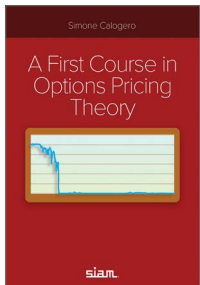
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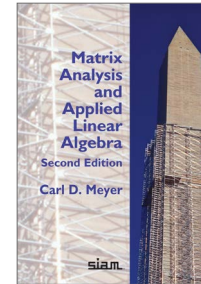
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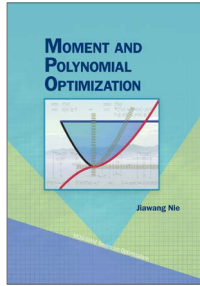
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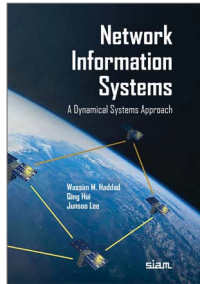
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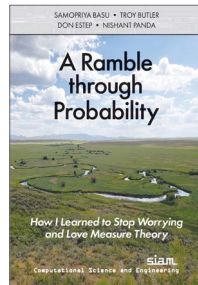
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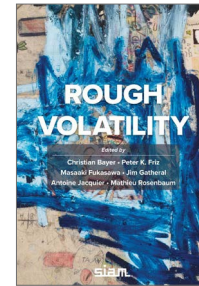
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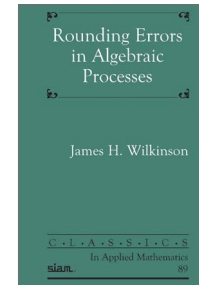


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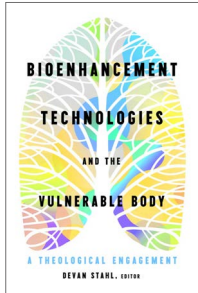
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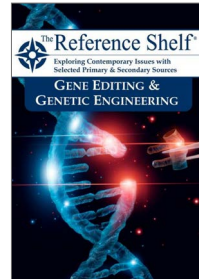
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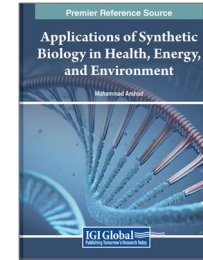
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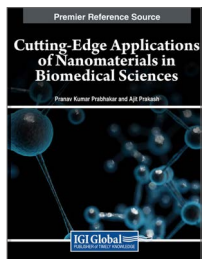
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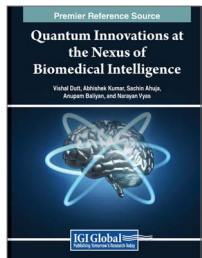
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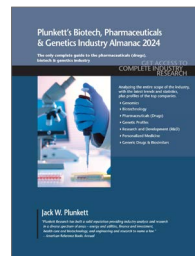
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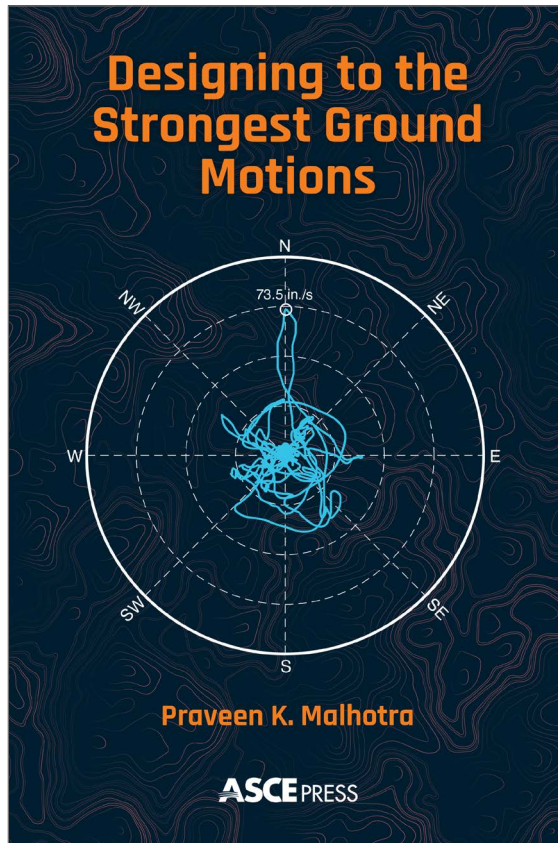
### PLUNKETT'S BIOTECH, PHARMACEUTICALS & GENETICS INDUSTRY ALMANAC 2024

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*Jack W. Plunkett*

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## DESIGNING TO THE STRONGEST GROUND MOTIONS

Praveen K. Malhotra

ASCE Press

Determines the strongest ground motions from data, rather than predictions, and discusses the design of structures to withstand the strongest ground motions. Future ground motions are highly uncertain, but the response of structures to future ground motions will not be uncertain if structures are designed to the strongest ground motions. Uncertainty is not an option in the design of structures whose collapse can be catastrophic.

Topics include:

- Characteristics of collapse-inducing ground motions, including energy-demand and cyclic-demand.
- Strongest ground motions from > 200,000 instrument-year of recorded data worldwide.
- Comparison between predicted and recorded ground motions.
- Seismic characteristics and analysis of structures, including seismic-toughness and cyclic-capacity.
- Practical nonlinear analysis of structures.
- Role of aftershocks and number of cycles in seismic design.
- Collapse-proof, rather than collapse resistant, seismic design.

Through this book, Dr. Malhotra provides valuable insights and new ways of thinking for structural and geotechnical engineers, architects, seismologists, insurers, regulators, educators, and policymakers.

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*American Society of Civil Engineers*



American Society of Civil Engineers



## BLAST PROTECTION OF BUILDINGS

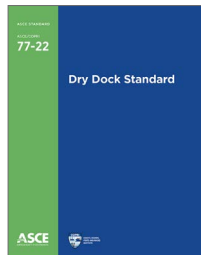
American Society of Civil Engineers  
ASCE/SEI 59-22

Provides minimum requirements for planning, design, construction and assessment of new and existing buildings subject to the effects of accidental or malicious explosions.

The standard includes principles for establishing appropriate threat parameters, levels of protection, loadings, analysis methodologies, materials, detailing and test procedures.

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## DRY DOCK STANDARD

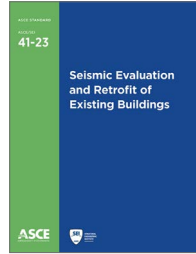
American Society of Civil Engineers  
ASCE/COPRI 77-22

Addresses a deficiency in commercial shipyards, specifically safety certification of dry docking facilities. This standard is intended for use by dry dock owners, Dockmasters, dry dock maintenance

engineers, engineers engaged in dry dock inspection and certification, ship owners, and port engineers.

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## SEISMIC EVALUATION AND RETROFIT OF EXISTING BUILDINGS

ASCE/SEI 41-23

Describes deficiency-based and systematic procedures that use performance-based principles to evaluate and retrofit existing buildings to withstand the effects

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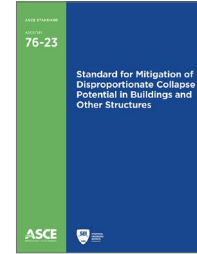
Michael O'Rourke

ASCE Press

Supplies detailed, authoritative explanations of the snow load provisions contained in *Minimum Design Loads and Associated Criteria for Buildings and Other Structures*, *Standard ASCE/SEI 7-22*. Michael O'Rourke illustrates the key concepts for applying the provisions to the design of structures that could collect falling or drifting snow.

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## STANDARD FOR MITIGATION OF DISPROPORTIONATE COLLAPSE POTENTIAL IN BUILDINGS AND OTHER STRUCTURES

American Society of Civil Engineers

ASCE/SEI 76-23

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## WIND LOADS

### Guide to the Wind Load Provisions of ASCE 7-22

T. Eric Stafford & Timothy A. Reinhold

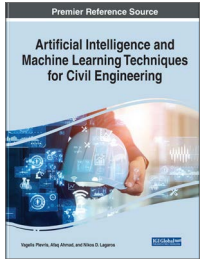
ASCE Press

Provides a comprehensive overview of the wind load provisions in *Minimum Design Loads and Associated Criteria for Buildings and Other Structures*. The book focuses on providing direction while using the provisions that affect planning and designing buildings for residential and commercial purposes.

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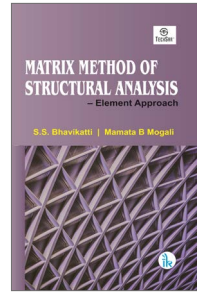
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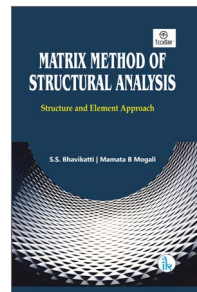


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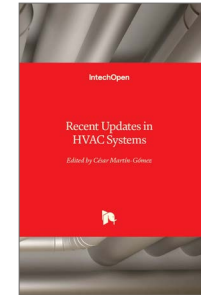
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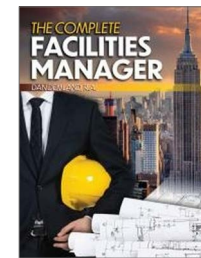
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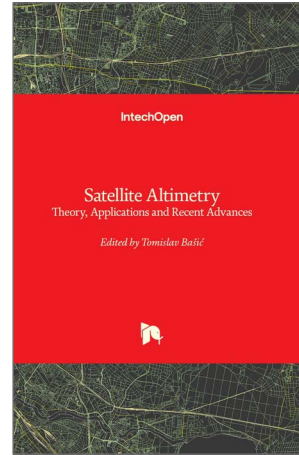
Marco Bardazzi

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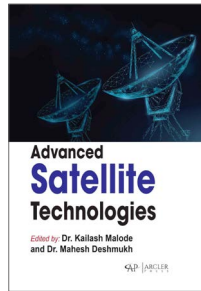
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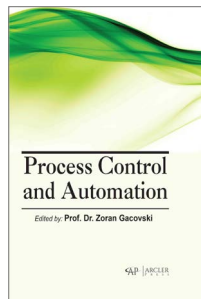
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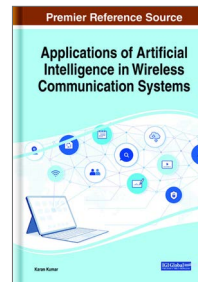
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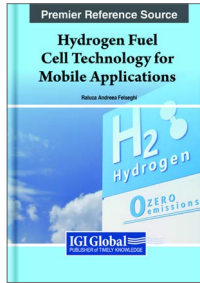
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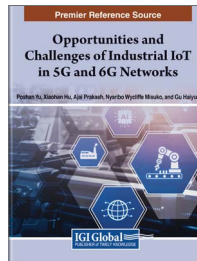
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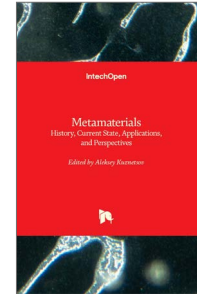
*Sonveer Singh & Sanjay Agrawal*

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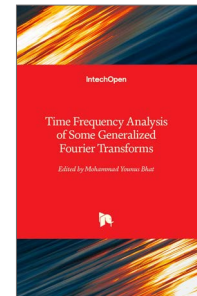
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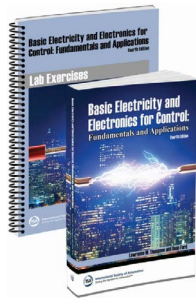
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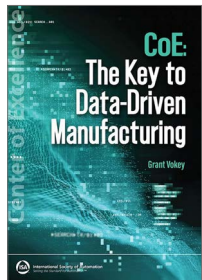
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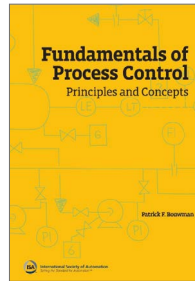
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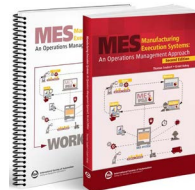
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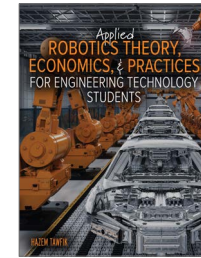
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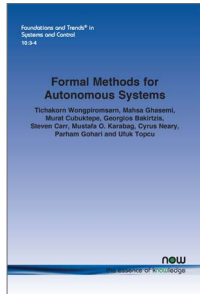
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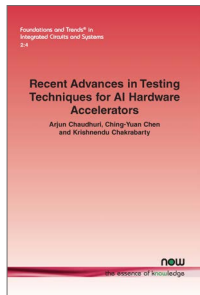
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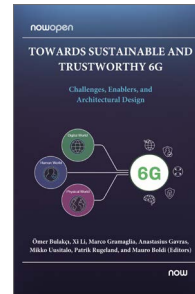
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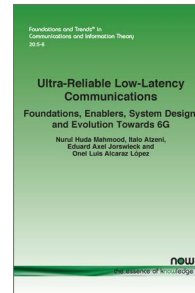
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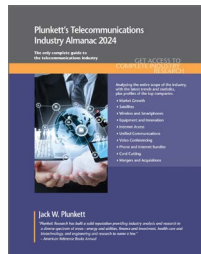


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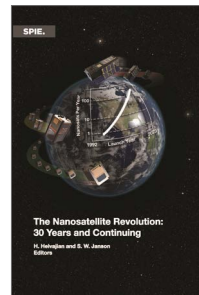
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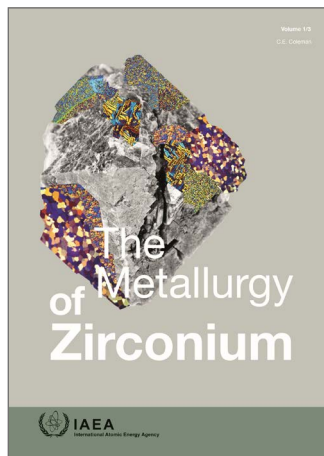
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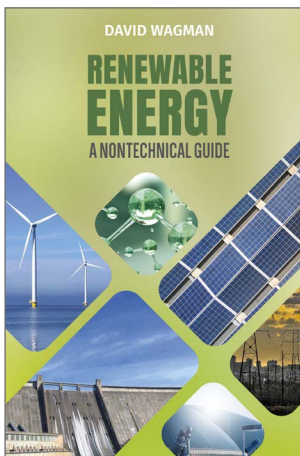
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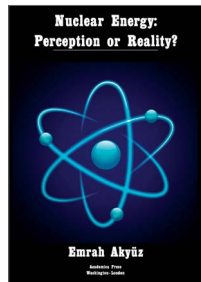
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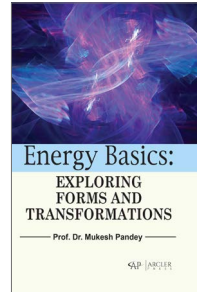
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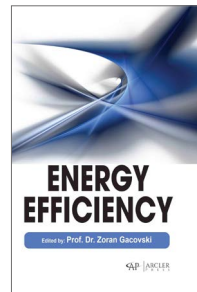
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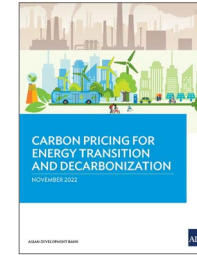
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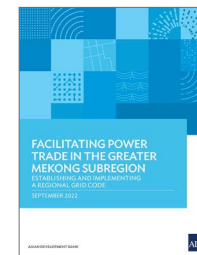
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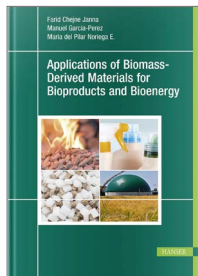
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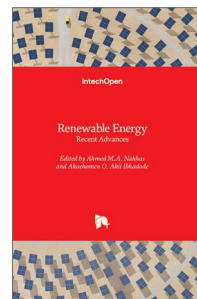
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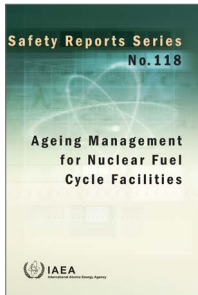
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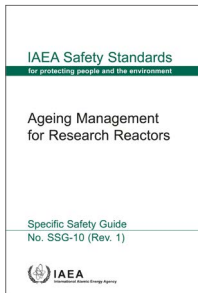
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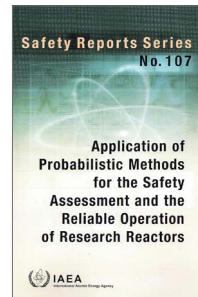
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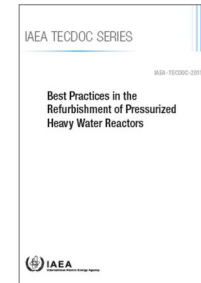
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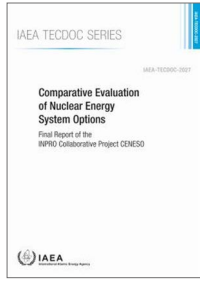
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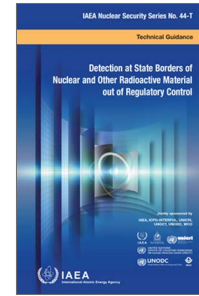
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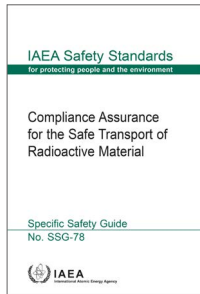
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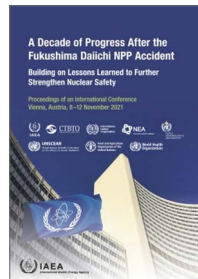
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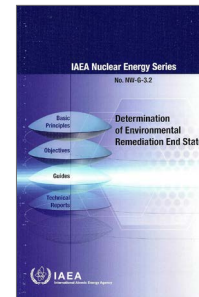
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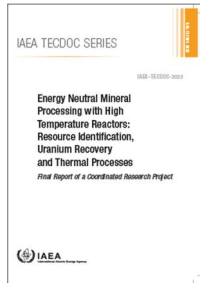
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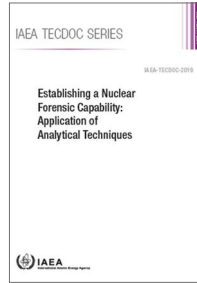
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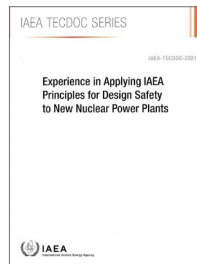
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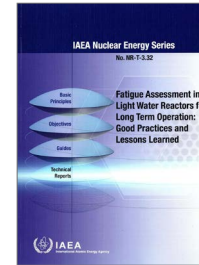
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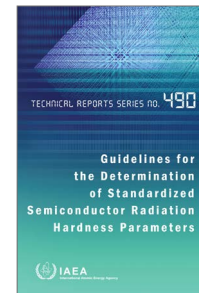
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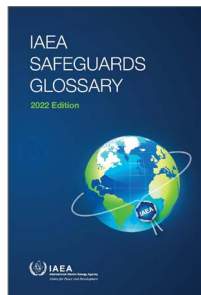
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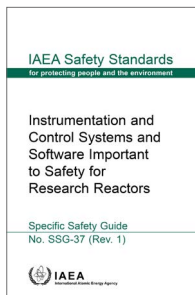
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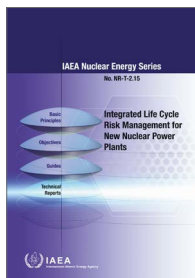
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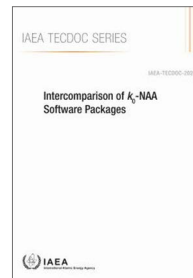
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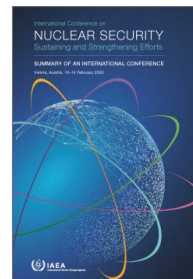
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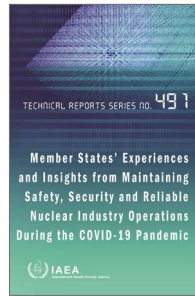
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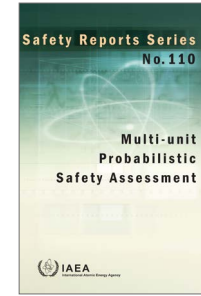
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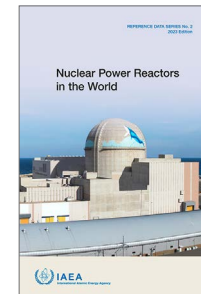
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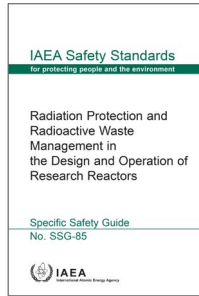
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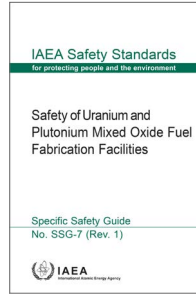
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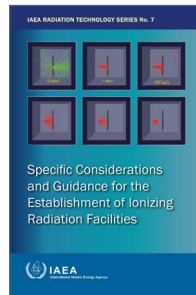
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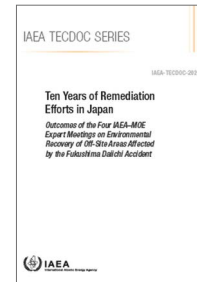
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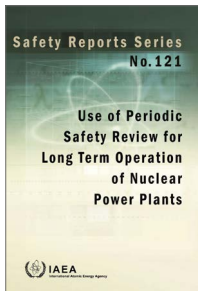
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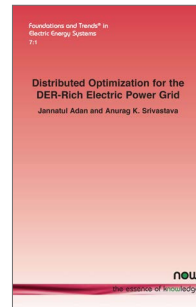
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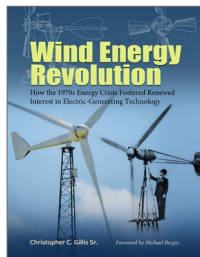
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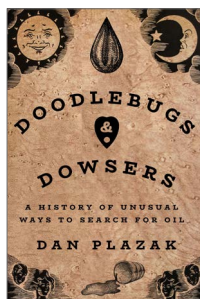
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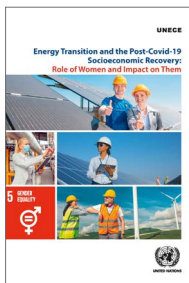
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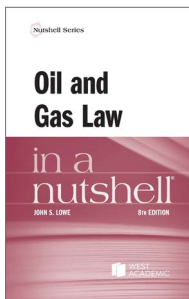
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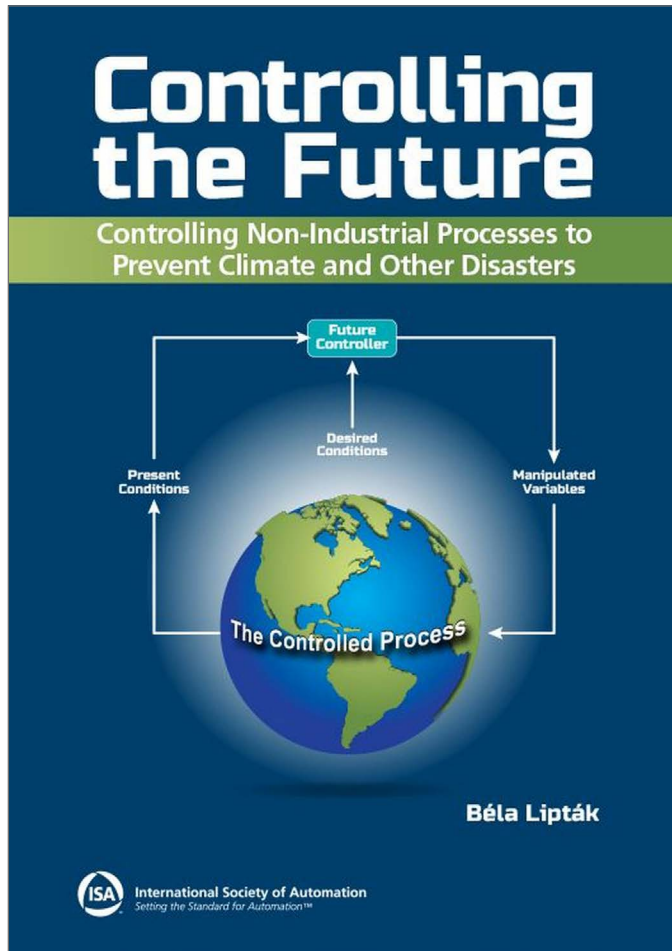
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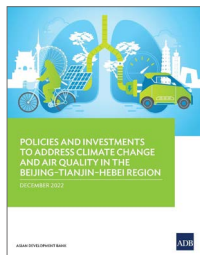
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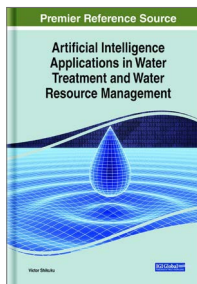
Edited by Bhupendra Pushkar

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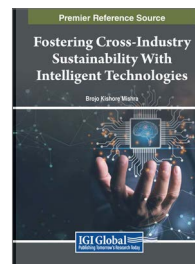
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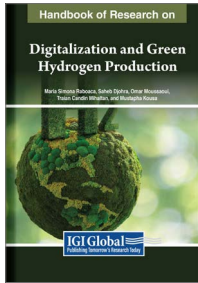
to sustainable finance, this book presents a holistic panorama of actionable insights, underpinned by the ethical imperatives of inclusivity and environmental responsibility. Anchored in the United Nations Sustainable Development Goals, this book serves as a guiding star, channeling theoretical prowess into pragmatic solutions.

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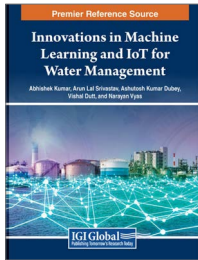
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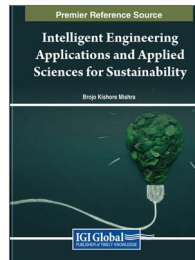
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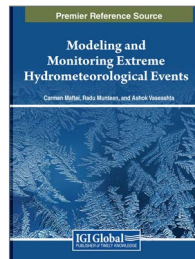
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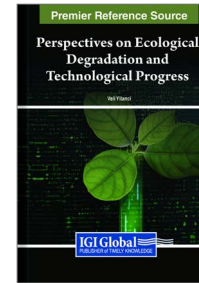
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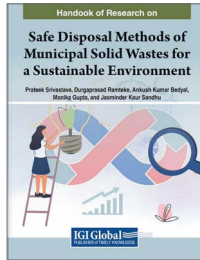
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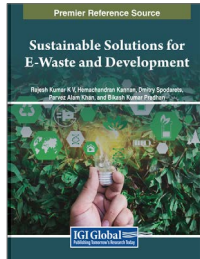
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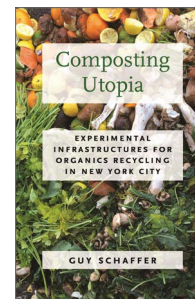
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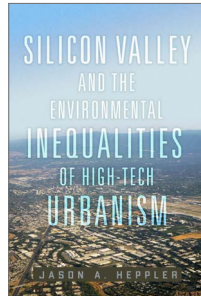
Drawing on ethnographic fieldwork with community composters and microhaulers in New York City, alongside the rollout of the city's curbside organics collection system, this book describes how local, grassroots organizations intervened in the city's waste system, enacting change and presenting an alternative vision of the composting city.

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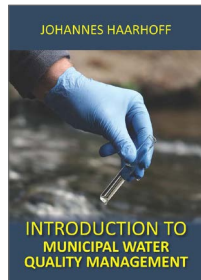
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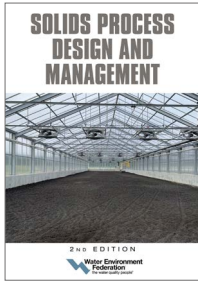
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Provides a state of the field on PFAS from a variety of perspectives within the water sector. Contributors include experts in industrial wastewater, municipal water management, and public health, with each contributor highlighting a different facet of the impact of PFAS in water and wastewater.

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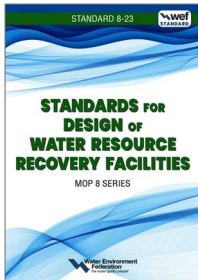
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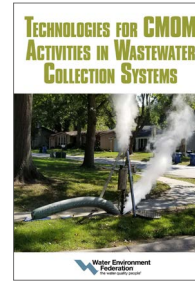
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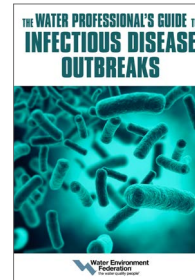
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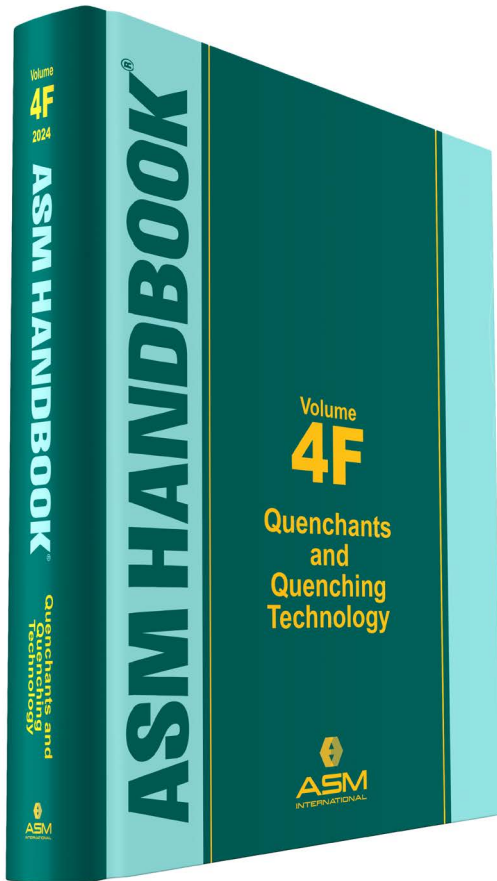
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The book describes the wetting and heat transfer characteristics of industrial quenchants, including polymer and salt solutions, nanofluids, and petroleum, vegetable, and animal oils, and presents examples of the microstructures and properties achieved in different quenching media.

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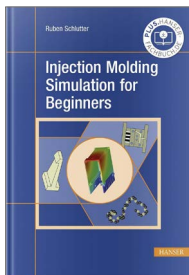
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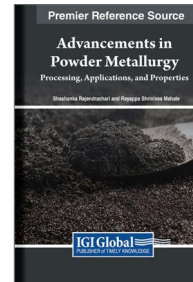
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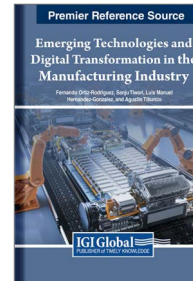
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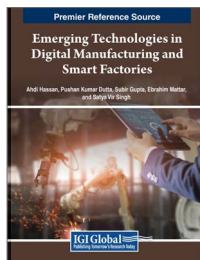
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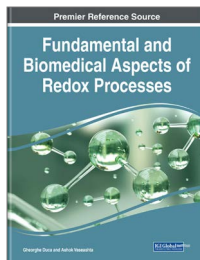
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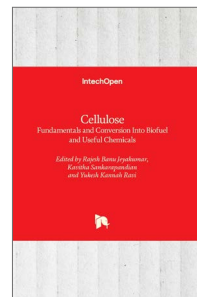
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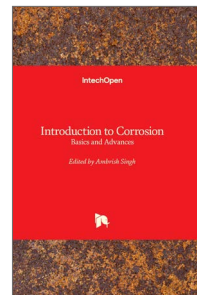
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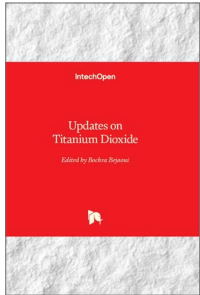
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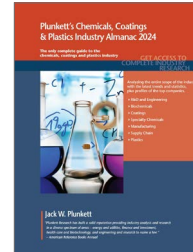
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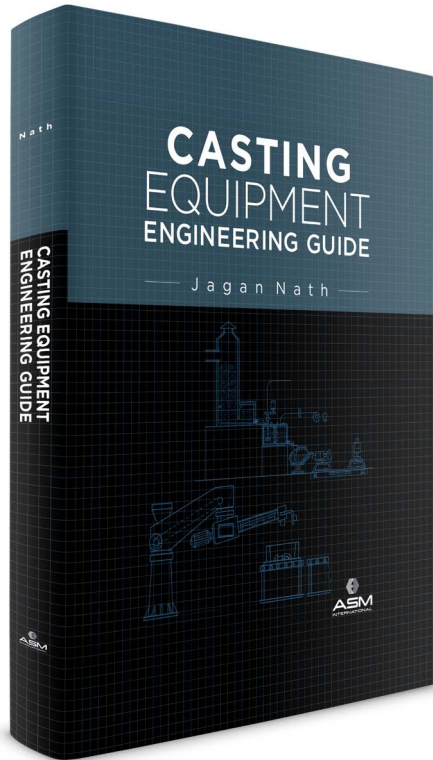
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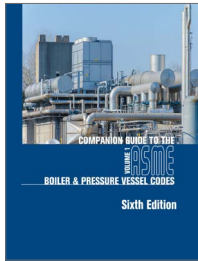
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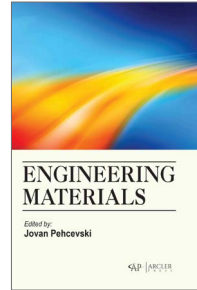
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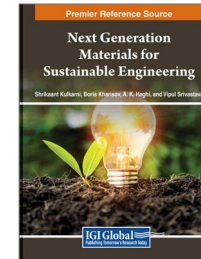
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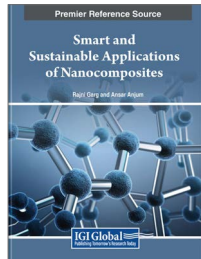
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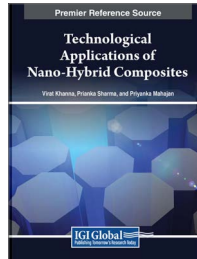
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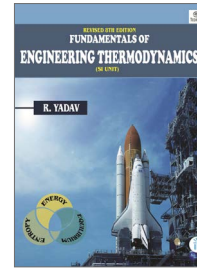
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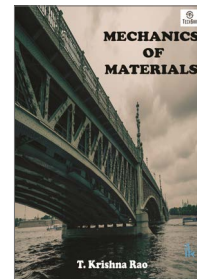
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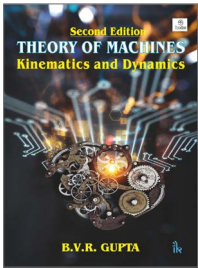
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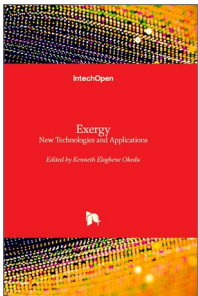
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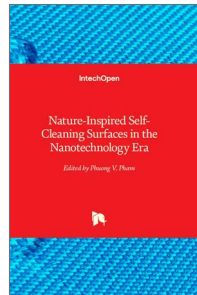
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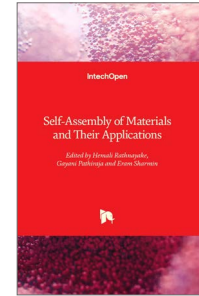
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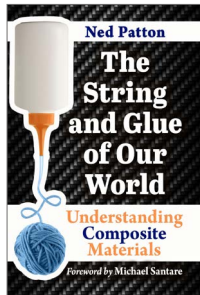
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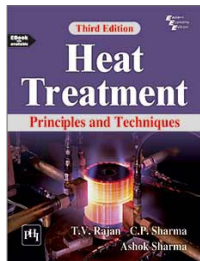
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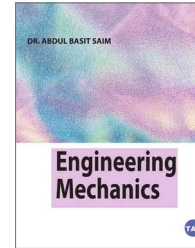
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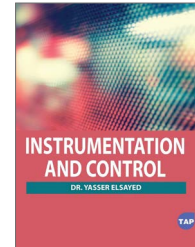
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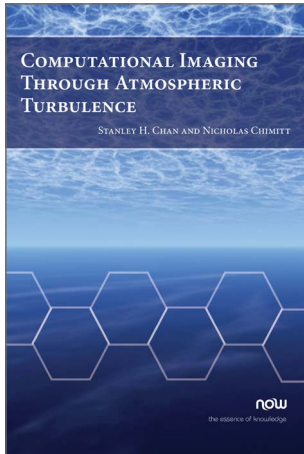
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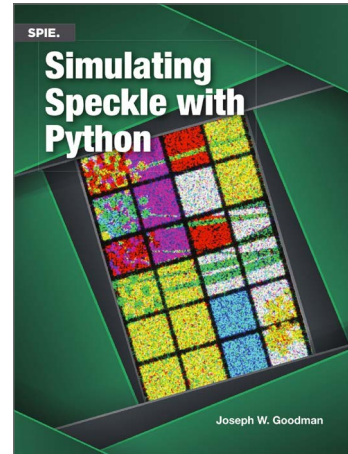
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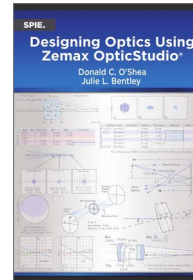
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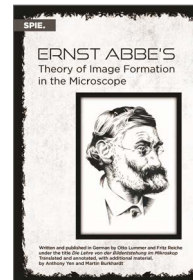
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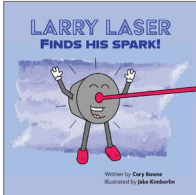
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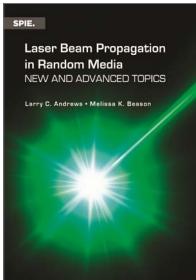
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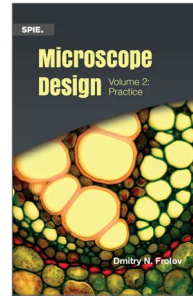
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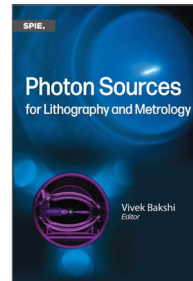
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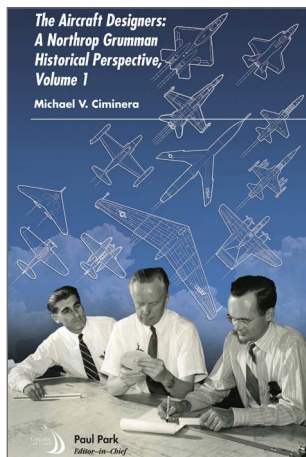


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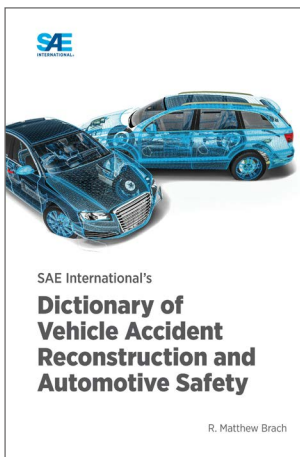
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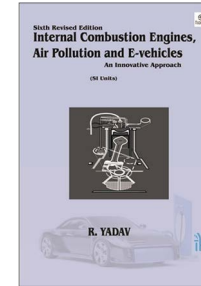
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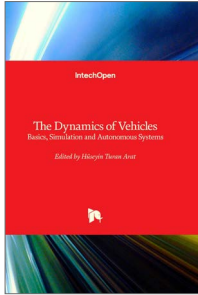
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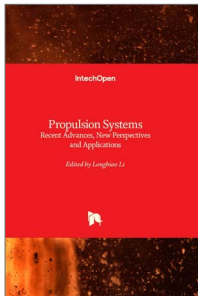
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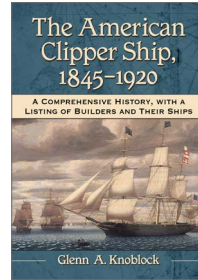
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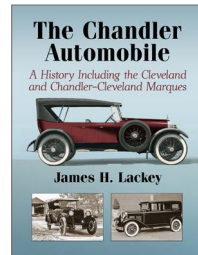
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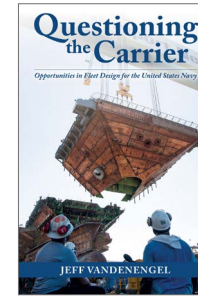
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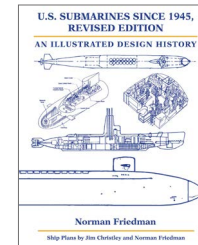
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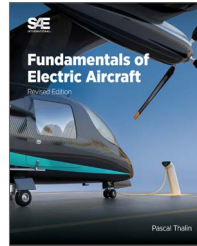
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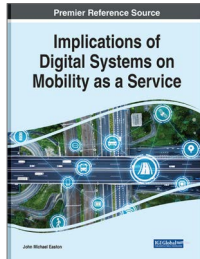
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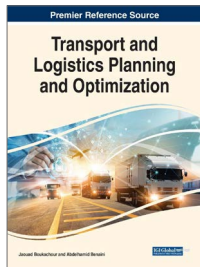
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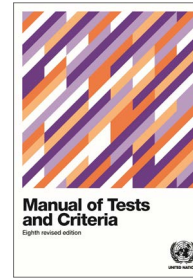
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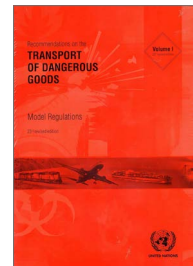
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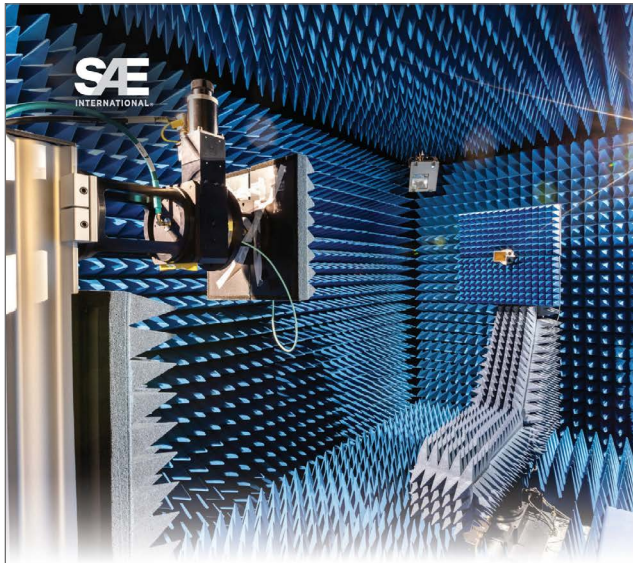
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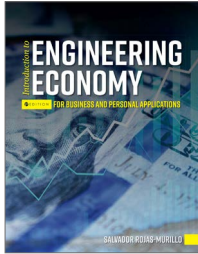
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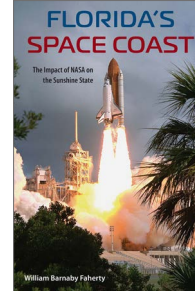
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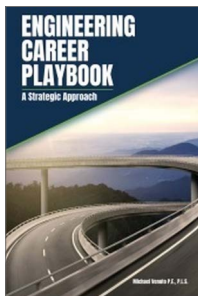
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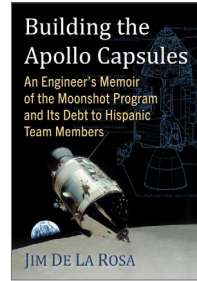
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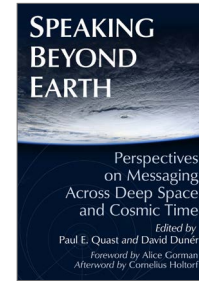
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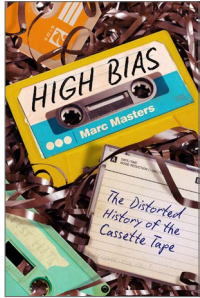
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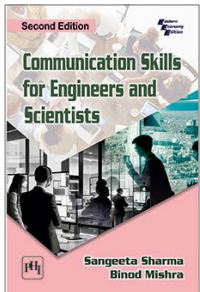
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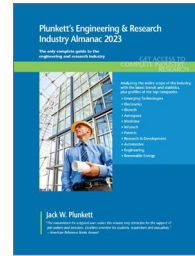
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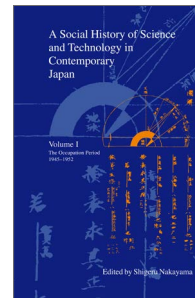
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