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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	1. Green Chemistry and Chemical Engineering, Introduction -- 2. Gas Expanded Liquids for Sustainable Catalysis -- 3. Green Catalytic Transformations -- 4. Green Chemistry Metrics: Material Efficiency and Strategic Synthesis Design -- 5. Green Chemistry with Microwave Energy -- 6. Nanotoxicology in Green Nanoscience -- 7. New Polymers, Renewables as Raw Materials -- 8. Organic Batteries -- 9. Oxidation Catalysts for Green Chemistry -- 10. Supercritical Carbon Dioxide (CO <sub>2</sub> ) as Green Solvent -- Index.

Processes that meet the objectives of green chemistry and chemical engineering minimize waste and energy use, and eliminate toxic by-products. Given the ubiquitous nature of products from chemical processes in our lives, green chemistry and chemical engineering are vital components of any sustainable future. Gathering together ten peer-reviewed articles from the Encyclopedia of Sustainability Science and Technology, Innovations in Green Chemistry and Green Engineering provides a comprehensive introduction to the state-of-the-art in this key area of sustainability research. Worldwide experts present the latest developments on topics ranging from organic batteries and green catalytic transformations to green nanoscience and nanotoxicology. An essential, one-stop reference for professionals in research and industry, this book also fills the need for an authoritative course text in environmental and green chemistry and chemical engineering at the upper-division undergraduate and graduate levels. Covers fundamentals and cutting-edge developments in a field that spans chemistry, engineering, and environmental science Appeals to a broad audience of undergraduate and graduate students, researchers, and industry professionals Edited and written by acknowledged leaders in the field Includes a glossary of key terms and a concise definition of the subject for each contribution Offers practical case studies that are ideal for use in green chemistry and chemical engineering courses at the advanced undergraduate and graduate levels.

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