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Collana	Materials Horizons: From Nature to Nanomaterials, , 2524-5392
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Nota di contenuto	Proton Conductors: Physics and Technological Advancements for PC-SOFC -- Transition Metal Nitrides as Energy storage materials -- Cathode Materials in Lithium-Ion Batteries as Energy Storage Devices -- State of the Art of Dye-Sensitized Solar Cells -- Fabrication And Characterization Of Silicon Nanowires Hybrid Solar Cell -- Proton Mobility in Solid Electrolyte: The Heart of Fuel Cell -- Perovskite Manganite Materials: Recent Advancements and Challenges as Cathode Applications for Solid Oxide Fuel Cells -- Gaphene oxide for photovoltaics applications -- Energy conversion materials: an electrolyte for intermediate temperature solid oxide fuel cell (IT-SOFCs) applications -- Graphene-based materials in energy harvesting -- Cathode Materials in Lithium Ion Batteries as Energy Storage Devices.
Sommario/riassunto	This book presents the latest progress in energy materials, energy storage, batteries, and supercapacitors. The contents include topics

such as fundamentals of energy materials, photovoltaic materials and devices, electrochemical energy conversion and storage, and lighting and light-emitting diodes. Chapters include experimental approaches to device fabrication, photovoltaics and supercapacitors applications, etc. It also discusses energy materials' characterization, preparation methods, and performance testing techniques. The book provides ideas on the design and development of nanoscale devices and covers various applications of nanomaterials. This book is useful for researchers and professionals working in the fields of materials science.