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Sommario/riassunto

Cerium is the most abundant metal of rare-earth elements. It can be used to make materials such as phosphors and alloys, that have applications in various applied fields (like electronics, magnetics and heterogeneous catalysis) and devices (like catalytic converters and gas mantles). Cerium-Based Materials: Synthesis, Properties and Applications presents detailed knowledge about cerium materials. Starting with the history of cerium-based materials, it gives an introduction to the synthesis of chemicals like cerium oxides and composites. This is followed by information about characterization of cerium nanoparticles and industrial applications of cerium-based materials, with a focus on catalysis, biomedical engineering and pharmaceutical chemistry. This book is an essential reference for researchers and chemical engineers who want a summary of cerium materials and its applications.