Record Nr. UNISALENTO991003765719707536 Autore Lomonaco, Francesco Titolo I condottieri / Francesco Lo Monaco ; a cura di Luigi Taroni Pubbl/distr/stampa Sesto San Giovanni : A. Barion, stampa 1937 Descrizione fisica 316 p.; 20 cm Altri autori (Persone) Taroni, Luigi 945.0509 Disciplina Soggetti Condottieri italiani Lingua di pubblicazione Italiano Materiale a stampa **Formato** Livello bibliografico Monografia Record Nr. UNINA9910763590903321 **Titolo** Advanced Ceramics / / edited by Shadia Jamil Ikhmayies Cham:,: Springer Nature Switzerland:,: Imprint: Springer,, 2024 Pubbl/distr/stampa **ISBN** 3-031-43918-X Edizione [1st ed. 2024.] 1 online resource (308 pages) Descrizione fisica Advances in Material Research and Technology, , 2662-477X Collana Disciplina 666 Soggetti Perovskite (Mineral) Ceramic materials Nanotechnology Nanoelectromechanical systems **Biophysics**

Nanoscience Perovskites

Ceramics

Nanoscale Design, Synthesis and Processing

Nanoscale Devices Nanoscale Biophysics

Lingua di pubblicazione Inglese

Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	 Historical background of ceramics 2. Introductory remarks on ceramics 3. Classification of ceramics 4. Ceramics Processing 5. Novel processing ceramic techniques 6. Properties of Ceramics.
Sommario/riassunto	This book presents the fundamentals of advanced ceramics, their stages of development, types and classifications, advanced processing techniques, properties, sintering, and new forms of applications. It highlights specific examples such as alumina, zirconia, Mg-Al-spinels, silicon carbide, silicon nitride, ceramic composites, and thin films with their specific applications. The book reviews progress in perovskite ceramics, in which the synthesis, processing, characterization, and advanced applications of perovskite ceramics are all thoroughly discussed. In addition, developments of perovskite solar cells, the main factors affecting their stability, current problems, development prospects in the research, and application of perovskite solar cells are all highlighted. This book also includes a review of a particular class of rare-earth-based mixed-metal oxides, namely Ln2B2O7 nanostructures (B = Zr, Sn, and Ce), where advantages and disadvantages of each production technique are addressed along with the properties of as-produced nanostructures. The solar photocatalytic uses of Ln2B2O7 nanostructures such as photodegradation of contaminants are also discussed. Yttria-based transparent ceramics for photonic applications are reviewed, along with a discussion of powder synthesis, green body preparation, sintering, and optical properties. In addition, the fundamentals of electrophoretic deposition of hydroxyapatite incorporated composite coatings on metallic substrates are presented and discussed. The different types of ceramics-based self-healing coatings and their fabrication processes have also been reported and discussed in this book. These include titania, zirconia, titanium-alumina, and zirconia-alumina incorporated with Benzotriazole (BTA) as an inhibitor. Advanced ceramic materials that have been used for the purpose of wastewater treatment including ceramic sorbents, resins, aerosols, and ceramic membranes that have been widely used for wastewater treatment purposes are also discussed in depth. Moreover, the

these advanced ceramic materials and their modifications to ensure

better efficacy toward environmental remediation purposes are highlighted in this book.