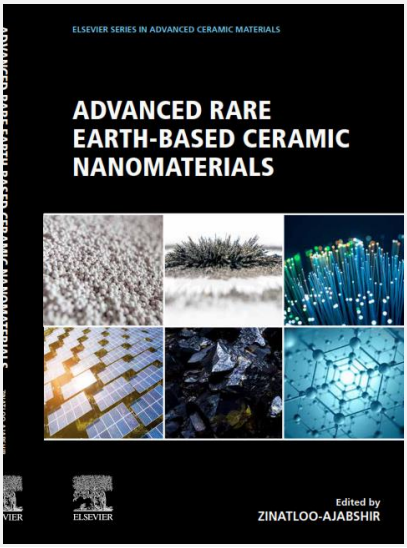

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Advanced Rare Earth-based Ceramic Nanomaterials

نویسنده: دکتر سحر زینت‌لو

Description

Advanced Rare Earth-Based Ceramic Nanomaterials focuses on recent advances related to preparation methods and applications of advanced rare earth-based ceramic nanomaterials. Different approaches for synthesizing rare earth-based ceramic nanomaterials are discussed, along with their advantages and disadvantages for applications in various fields. Sections cover rare earth-based ceramic nanomaterials like ceria and rare earth oxides (R2O3), rare earth vanadates, rare earth titanates, rare earth zirconates, rare earth stannates, rare earth-based tungstates, rare earth-based manganites, ferrites, cobaltites, nickelates, rare earth doped semiconductor nanomaterials, rare earth molybdates, rare earth-based nanocomposites, rare earth-based compounds for solar cells, and laser nanomaterials based on rare-earth compounds.

Key Features

Reviews the chemistry and processing of rare earth doped ceramic nanomaterials and their characteristics and applications

Covers a broad range of materials, including ceria and rare earth oxides (R2O3), vanadates, titanates, zirconates, stannates, tungstates, manganites, ferrites, cobaltites, nickelates, rare earth doped semiconductor nanomaterials, rare earth molybdates, rare earth-based nanocomposites, rare earth-based compounds for solar cells, and laser nanomaterials based on rare-earth compounds

Includes different approaches to synthesizing each family of rare earth-based ceramic nanomaterials, along with their advantages and disadvantages

Provides green chemistry-based methods for the preparation of advanced rare earth-based ceramic nanomaterials

Readership

Materials scientists, physicists, chemists and engineers, R&D Managers working in ceramic materials, energy science and technology