Special Issue

Rare Earth Oxides and Their Applications

Message from the Guest Editor

Most of the rare earth-containing materials with industrial applications are either oxides, or they are obtained from oxides. Regarding the bulk and mature industry applications of rare earth oxides, their use in catalysts formulations (such as in three way automotive catalysis), in glass-related industries (glass making, decolouring or colouring, glass polishing and other related applications), and permanent magnets manufacturing account for almost 70% of rare earth oxides usage. Other important industrial applications concern the metallurgy industry (used as additives in Fe or Al metal alloys), ceramics (specially in the case of Y), lighting-related applications (in the form of phosphors), as battery alloy components, or in solid oxide fuel cells, amongst others. Additionally, but not less important, there are lower scale applications, such as biomedical uses of nanoparticulated systems containing rare earth oxides for cancer treatment or as tumoral detection markers, or as sunscreens cosmetics for skin protection.

The aim of this Special Issue is to cover the above-mentioned applications. It is my pleasure to invite you to submit a manuscript to this Special Issue.

Guest Editor

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Deadline for manuscript submissions

closed (31 December 2020)

Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed

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Message from the Editor-in-Chief

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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