Special Issue

Advanced Rare Earth Doped Functional Materials

Message from the Guest Editors

RE ions play a fundamental role in various optical applications and advanced technologies, including lasers, optics, solar-energy conversion, displays and economical lighting, medical imaging, and quantum computing as well as rechargeable hybrid batteries, electronics, alloys, and magnets just to cite its few applications. Materials doped with RE elements have become vital due to their unique physiochemical properties, such as their distinct optical, magnetic, and electronic behaviors, enabling significant performance enhancements in these diverse fields. This Special Issue highlights recent advances in Novel active devices and emerging applications of RE-doped optical materials. It focuses on innovative functional materials, particularly organic, crystalline, glass, and glass ceramics. Topics of interest include the latest research and advancement in luminescent materials, preparation and characterization methods, new processing methods for fabricating RE-doped glasses and glass ceramics, and advances in glass fibers and films. Toward this end, it is our pleasure to invite you to submit your manuscript to this Special Issue.

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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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