



Optical Properties of Rare-Earth Doped Nanostructured Materials

Guest Editor:

Dr. Mihail Secu

National Institute for Materials
Physics, Magurele, Romania

Deadline for manuscript
submissions:

closed (30 September 2021)

Message from the Guest Editor

Rare-earth doped nanostructured materials have attracted great interest because of their luminescence properties (wide spectral range, intense and sharp bands, and long lifetime), with a high potential for applications in various fields, such as optoelectronic devices, radiation detection, white light generation displays, photovoltaics, telecommunications, solid state lasers, or nano-labels, in biological imaging and nanomedicine. Great efforts have been devoted to searching for new and controllable synthesis methods, by using various chemical methods, along with a better understanding of the nanosize and surface-related effects.

A promising development of the rare-earth doped nanostructured materials is represented by luminescent hybrid composite materials. These are based on stabilized rare-earth doped nanoparticles homogeneously dispersed in a glassy or polymeric matrix—nano-glass ceramics or inorganic-polymer composites, respectively. Such nanocomposites would allow for the exploitation of their favorable optical functionalities and optical transparency (because of a lack of scattering).





an Open Access Journal by MDPI

Editors-in-Chief

Prof. Dr. Maryam Tabrizian

1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada

2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

Prof. Dr. Yuguang Ma

State Key Laboratory of Luminescent Materials and Devices, South China University of Technology, Guangzhou 510640, China

Message from the Editorial Board

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.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility: indexed within Scopus, SCIE (Web of Science), PubMed, PMC, Ei Compendex, CaPlus / SciFinder, Inspec, Astrophysics Data System, and other databases.

Journal Rank: JCR - Q2 (Metallurgy and Metallurgical Engineering) / CiteScore - Q1 (Condensed Matter Physics)

Contact Us

Materials Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/materials
materials@mdpi.com
[X@Materials_Mdpi](https://twitter.com/Materials_Mdpi)