

Special Issue on **Rare Earth Doped Materials: Research Trends for New Technological Applications**

CALL FOR PAPERS

Rare earth doped functional materials have been continually exploited for specific technological applications. Media communication, in vivo optical imaging, high definition displays, production of renewable energy and lighting sources, materials for photocatalysis, energy conversion, and optical devices for use in the long wavelength regions (near- and mid-IR) are few examples of the potential and practical applications of such functional materials and are at the center of interest for material researcher community. Many of these applications stem from the unique optical and spectroscopic properties of rare earth ions and rare earth doped functional materials see a promising future ahead and are expected to contribute significantly in these different fields.

The aim of this special issue is to highlight the trends of recent research studies in the field of rare earth doped condensed matter for cutting edge technological applications in optics and photonics. This feature issue covers broad range aspects, from doped-material synthesis to their applications and optical properties. We are willing to receive original and high quality contributions that are not under review by another journal or peer-reviewed conferences.

Potential topics include but are not limited to the following:

- ▶ Optical spectroscopy of rare earth doped condensed matter
- ▶ Synthesis and characterization of rare earth doped materials
- ▶ Scientific results on the applications of rare earth doped condensed matter
- ▶ Luminescence, optical communication, sensing, optical imaging, solar energy, energy conversion, and so forth
- ▶ Luminescent glasses and glass-based devices for energy conversion: thin films, optical fibers, and planar waveguides
- ▶ Rare earth doped glasses, ceramics, nanoparticles, and hybrids materials
- ▶ Physical and chemical phenomena based on rare earth doped condensed materials
- ▶ Optical sensing by using rare earth doped materials
- ▶ Photocatalysis
- ▶ Luminescent solar concentrators

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/acmp/redm/>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

Lead Guest Editor

Danilo Manzani, State University of Londrina (UEL), Londrina, Brazil
danilo.manzani@gmail.com

Guest Editors

Jefferson Luis Ferrari, Federal University of São João Del Rei, São João del Rei, Brazil
jeffersonferrari@gmail.com

Sajjad Ullah, University of Peshawar Pakistan, Peshawar, Pakistan
sajjadullah@upesh.edu.pk

Victor A. G. Rivera, Universidad Nacional Mayor de San Marcos, Lima, Peru
garcia@ifsc.usp.br

Luciana R. P. Kassab, Faculdade de Tecnologia de São Paulo, São Paulo, Brazil
kassablm@osite.com.br

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