

Special Issue

Multiple Applications for Ceramic Materials

Message from the Guest Editor

In the last decade, many efforts have been focused on the fabrication and development of transparent polycrystalline ceramics because they can be used as host materials for solid-state lasers (SSL). Ceramics doped with rare-earth elements (RE) has been considered a promising and attractive way to build up efficient and high-power diode-pumped SSL with short duration pulses. If compared with single crystals, ceramic fabrication processes make it possible to obtain samples with a more uniform dopant distribution, high levels of doping, excellent thermo-mechanical and optical properties. Moreover, they are more economically advantageous than crystals due to lower processing temperatures and shorter processing times. This Special Issue is aimed to cover the recent research work on fabrication, development e characterization of transparent polycrystalline ceramic materials, so as to provide an insight into the current status and future prospects in this field.

Guest Editor

Dr. Angela Pirri

Istituto di Fisica Applicata "N. Carrara", IFAC, Consiglio Nazionale delle Ricerche, CNR, Via Madonna del Piano 10C, I-50019 Sesto Fiorentino, Florence, Italy

Deadline for manuscript submissions

closed (10 July 2022)



Materials

an Open Access Journal
by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed



mdpi.com/si/76844

Materials
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
materials@mdpi.com

[mdpi.com/journal/
materials](https://mdpi.com/journal/materials)





Materials

an Open Access Journal
by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed



[mdpi.com/journal/
materials](https://mdpi.com/journal/materials)



About the Journal

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.

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

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)