Special Issue

Deep-Red to Near-Infrared Materials for Optoelectronics: Developments and Applications

Message from the Guest Editors

Currently, the deep-red to NIR market is dominated by epitaxially growth inorganic semiconductors which employ toxic or critical raw materials (e.g., InGaAs and HgCdTe). In this regard, organic materials offers a unique opportunity to integrate the whole sector of the deep-red to NIR optoelectronics into the new circular economy scenario according to the current global challenges. Organic materials and semiconductors (OMs and OSCs), characterized by p-conjugated scaffolds, hold great potential compared to inorganic semiconductors for the development of novel technologies including OLEDs, solar cells and detectors. This Special Issue is addressed to researchers, institutions and industrial players willing to contribute and share the advancement of deep-red to near-IR technologies in terms of:

- Novel absorbing or emissive materials;
- Organic or organometallic chromophores and luminophores;
- Device fabrication and characterization techniques;
- Narrow-bandgap systems;
- Visible-light transparency;
- Applications in OLEDs, solar cells, sensors and photodetectors.

Guest Editors

Dr. Alberto Bossi

Istituto di Scienze e Tecnologie Chimiche “Giulio Natta”, Consiglio Nazionale delle Ricerche, CNR-SCITEC, Milan, Italy

Dr. Marta Penconi

Istituto di Scienze e Tecnologie Chimiche “Giulio Natta”, Consiglio Nazionale delle Ricerche, CNR-SCITEC, Milan, Italy

Deadline for manuscript submissions

closed (20 February 2022)

Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed

mdpi.com/si/84858

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

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

MDPI

About the Journal

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.

Editor-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

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)