



## Trends in Nonlinear Optical Materials

Guest Editor:

**Prof. Dr. Luca Rigamonti**

Dipartimento di Scienze  
Chimiche e Geologiche,  
Università degli Studi di Modena  
e Reggio Emilia, 41125 Modena,  
Italy

Deadline for manuscript  
submissions:

**closed (31 August 2020)**

### Message from the Guest Editor

Dear Colleagues,

Nonlinear optics (NLO) started to be explored by Franken et al., in 1961, with the discovery of second-harmonic generation (SHG) or frequency doubling. That happened right after the construction of the first laser by Maiman in 1960, of which the electric field intensity was sufficient to induce the nonlinear response of matter. The interest in this field has led to the synthesis of several compounds over the years, both organic molecules and coordination complexes, in order to provide coherent light of different wavelengths, materials interaction through multi-photon absorption (photodynamic therapy in medicine, optical power limiting applications, etc.), advanced spectroscopy and materials analysis, possible applications to communications and sensors, and so on. This Special Issue aims to collect new advances in the synthesis, and experimental and theoretical characterization of new materials, ranging from purely organic derivatives to transition metal and lanthanide complexes, coordination polymers and hybrid systems, and description of their linear and nonlinear optical properties, such as SHG, multi-photon absorption, etc.





an Open Access Journal by MDPI

## 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

## 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.

## 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 - Q1 (Metallurgy and Metallurgical Engineering) / CiteScore - Q2 (*Condensed Matter Physics*)

## Contact Us

*Materials* Editorial Office  
MDPI, St. Alban-Anlage 66  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/materials](http://mdpi.com/journal/materials)  
[materials@mdpi.com](mailto:materials@mdpi.com)  
[X@Materials\\_Mdpi](https://twitter.com/Materials_Mdpi)