

Special Issue

Nano-Opto-Mechanics

Message from the Guest Editor

Recently, advances in opto-electronic and nano-technologies have boosted the development of opto-mechanics, providing cutting-edge abilities in manipulation on micro- and nano-scales. For example, holographic optical tweezers enable simultaneous manipulation of hundreds of particles; tractor beams provide additional degrees of freedom by attracting objects to a source of illumination; plasmonic tweezers mediate subwavelength self-organisation of particles and their enhanced trapping; and plenty of other systems flexibly govern complex nano-structures. Therefore, the main research focus of the 'Nano-Opto-Mechanics' Special Issue is on up-to-date fundamental opto-mechanical phenomena; novel types of optical manipulators; optically driven micro- and nano-mechanical devices (NOMS); auxiliary structures for tweezing, optical binding, and optical matter; applications of optomechanics in bio-physics and biomedicine; etc. Authors are encouraged to contact me or the Editorial Office, to publish their valuable original papers in this well-timed thematic Issue.

Guest Editor

Prof. Alexander Shalin

Department of Nano-Photonics and Metamaterials, ITMO University,
Saint Petersburg, Russia

Deadline for manuscript submissions

closed (31 December 2021)



Materials

an Open Access Journal
by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed



mdpi.com/si/29093

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 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)