

Special Issue

Superconducting and Quantum Metamaterials, Metacircuits, and Metadevices

Message from the Guest Editor

The aim of this Special Issue is to highlight recent developments and advances in the theory, design, modeling, fabrication, characterization/experiment, and application of superconducting and quantum metamaterials, metacircuits, and metadevices operating at DC, RFs, microwaves, millimetre-waves, terahertz, and optics that address multiple aspects of challenges in:

- cavity Josephson plasmonics;
- plasmonic superconducting metadevices and metacircuits;
- superconducting quantum/Josephson metamaterials;
- low-loss superconducting–semiconducting/graphene/insulator hybrid metamaterials;
- superconducting hyperbolic metamaterials; or
- waveguide quantum electrodynamics.

Keywords:

- superconducting plasmonic metamaterials;
- Josephson plasmonics;
- Josephson junctions;
- quantum circuits and electrodynamics;
- quantum metamaterials;
- hybrid superconducting–semiconducting/graphene/insulator metamaterials;
- cavity and waveguide quantum electrodynamics.

Guest Editor

Dr. Kaveh Delfanazari

Department of Physics, University of Cambridge, Cambridge, UK

Deadline for manuscript submissions

closed (31 December 2020)



Materials

an Open Access Journal
by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed



mdpi.com/si/30918

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)