



## 2D Materials for Advanced Devices

Guest Editor:

### Dr. Rafik Addou

School of Chemical, Biological  
and Environmental Engineering,  
Oregon State University,  
Corvallis, OR 97331, USA

Deadline for manuscript  
submissions:

**closed (15 July 2021)**

### Message from the Guest Editor

The aim of this Special Issue, entitled “2D Materials for Advanced Devices”, is to offer the latest cutting-edge research and development of 2D technology. This issue seeks to publish recent advances in the synthesis of novel and high-quality 2D materials, device fabrication and testing, integration challenges solving, and surface and interface engineering.

- Graphene and its analogs (graphane, graphene oxide, fluorographene, etc.)
- Monoelement 2D materials: silicene, germanene, borophene, phosphorene, arsenene, stanene, bismuthene, tellurene, etc.
- 2D chalcogenides: WSe<sub>2</sub>, MoTe<sub>2</sub>, TaS<sub>2</sub>, GaTe, InSe, Sb<sub>2</sub>Te<sub>3</sub>, Bi<sub>2</sub>Se<sub>3</sub>, etc.
- 2D oxides, carbides, and nitrides
- 2D perovskites, hydroxides, MOFs, MAX phases, MXenes, metal halides, and other novel 2D materials.
- 2D Materials engineering: surfaces, interfaces, heterostructures, alloying, passivation, functionalization, etching, 0D and 1D structures from 2D materials, 2D quantum wells, etc.
- 2D advanced devices and applications
- Physics and materials science at 2D limit





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

## Contact Us

Materials Editorial Office  
MDPI, Grosspeteranlage 5  
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)