

## Special Issue

# Application of Nanotechnology in Building Composites

### Message from the Guest Editor

The development of nanotechnologies in recent years has influenced the sphere of building materials on a large scale. Advances have been made in the use of nanomaterials in fresh blends to change their viscosity and processability. Nanoparticles serve as reinforcements, densifiers, or hydration modifiers in the microstructure of composites and work to improve the resulting elastic, strength, fracture, thermal, or electrical properties of the composites. Nanomaterials are used as corrosion inhibitors and coatings. Active surfaces (self-cleaning, hydrophobic, or icephobic) were prepared by applying nanomaterials to building materials.

The Special Issue will gather contributions that describe new approaches and the latest achievements and advances in the application of nanotechnologies, advances in the characterization of material nanolevel, or nanomodifications of building materials. Bulk, surface, fresh mixture, or hardened state applications are of interest. The Special Issue welcomes research articles and reviews on relevant topics.

---

### Guest Editor

Prof. Dr. Jiří Němeček

Department of Mechanics, Faculty of Civil Engineering, Czech Technical University in Prague, 166 29 Prague, Czech Republic

---

### Deadline for manuscript submissions

closed (30 April 2022)



## Materials

---

an Open Access Journal  
by MDPI

---

Impact Factor 3.2  
CiteScore 6.4  
Indexed in PubMed



[mdpi.com/si/80125](https://mdpi.com/si/80125)

*Materials*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[materials@mdpi.com](mailto: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)