Special Issue

Advances in Carbon Nanotubes: Preparation, Properties and Applications

Message from the Guest Editor

Nanomaterial research is recognized as a discipline of great importance, which will influence new ways of designing, producing and even living, generating a great impact on society. Carbon nanotubes represent an important class of nanomaterials. The latter are very small tubes, with a diameter as small as a nanometer whose wall is made up of carbon atoms that form a hexagonal mesh. Thanks to their peculiar chemical–physical characteristics, carbon nanotubes have proven to be extremely competitive in various sectors and application contexts and, in the future, they will increasingly influence the development of many sectors such as biology, medicine, materials sciences, and engineering. The extraordinary electronic, mechanical, optical, and chemical properties have stimulated extensive research activities around the world since their discovery in 1991. The applications of carbon nanotubes are truly vast: nanoelectronics, chemical sensors, biosensors, acoustic devices, artificial muscles, detectors, etc. Carbon nanotubes are highly promising in the sector of environmental protection, such as in water purification.

Guest Editor

Dr. Pierantonio de Luca

Dipartimento di Ingegneria Meccanica, Energetica e Gestionale, Università della Calabria, I-87036 Arcavacata di Rende, CS, Italy

Deadline for manuscript submissions

closed (20 February 2025)

MDPI

Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed

mdpi.com/journal/
materials

MDPI

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)