



materials



an Open Access Journal by MDPI

Advances in Bio-inspired Materials

Guest Editor:

Prof. Dr. Nicola Pugno

Department of Civil,
Environmental and Mechanical
Engineering, University of Trento,
Via Mesiano, 77, 38123 Trento,
Italy

Deadline for manuscript
submissions:

closed (31 December 2012)

Message from the Guest Editor

Dear Colleagues,

Unlocking the mysteries behind the superior design and mechanical properties of natural materials, promises to bring soon decisive novelties to our lives. From the elasticity of blood vessels, to the self-healing properties of bones, the strength of nacre, the smart adhesion of gecko feet, the self-cleaning quality of the lotus leaf, the resistance of the spiderweb, biology offers endless inspiration to engineering materials.

In this special issue we focus on the most recent advances in bio-inspired materials, with an emphasis on their mechanical hierarchical design, from the nano- to the macro-scale, hoping to contribute to the advent of a new material era.

Prof. Dr. Nicola Pugno
Guest Editor



mdpi.com/si/1939

Special Issue



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

Contact Us

Materials Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/materials
materials@mdpi.com
[X@Materials_Mdpi](https://twitter.com/Materials_Mdpi)