

Special Issue

Magnetic Properties of Nanomaterials

Message from the Guest Editor

Now, these nanomaterials (new magnetic materials, hard, semi-hard and soft magnetic nanomaterials) play a key role in concerning the reduction of fossil fuel consumption and climate change. Nanomaterials offer a wide range of possibilities in terms of both synthesis and characterization. In the field of magnetism, several characteristic dimensions are found at the nanoscale, such as the domain wall thickness and the exchange length in hard magnetic phases. In the case of magnetic recording media, nanoscaling allows the increasing of the surface density of the data storage. As for permanent magnets, the energy product has been successfully improved through using nanocomposite phases. This special issue focuses on many areas of magnetic nanomaterial applications (giant magnetoresistance, automotive applications, high density recording media, magnetic refrigeration, biomedicine...). Contributions may cover topics but are not limited, such as theoretical work and ab initio calculations, the characterization of magnetic compounds, spintronic materials, magnetic nanoparticles for recording media, and magnetocaloric effects.

Guest Editor

Prof. Dr. Lotfi Bessais

Institut de Chimie et des Matériaux Paris-Est, ICMPE-CNRS, 94320 Thiais, France

Deadline for manuscript submissions

closed (20 October 2021)



Applied Sciences

an Open Access Journal
by MDPI

Impact Factor 2.9
CiteScore 6.1



mdpi.com/si/82618

Applied Sciences
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
applsci@mdpi.com

mdpi.com/journal/

[applsci](https://doi.org/10.3390/applsci)





Applied Sciences

an Open Access Journal
by MDPI

Impact Factor 2.9
CiteScore 6.1



[mdpi.com/journal/
applsci](https://mdpi.com/journal/applsci)



About the Journal

Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo
Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32,
20133 Milano, Italy

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), Ei Compendex, Inspec, Embase, CAPIus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Engineering, Multidisciplinary) / CiteScore - Q1 (Fluid Flow and Transfer Processes)