Special Issue

Application of Magnetic Nanoparticles

Message from the Guest Editors

Magnetic nanoparticles (MNPs) have emerged as a highly versatile class of nanomaterials with applications spanning biomedicine, environmental remediation, catalysis, and energy-related technologies. Their unique magnetic behavior, size-dependent properties, and surface tunability enable advanced functionalities in drug delivery systems, magnetic resonance imaging (MRI), hyperthermia treatment, targeted separation, and nanoscale sensing. Ongoing research has increasingly focused on the rational design of MNPs and magnetic nano(bio)hybrids, emphasizing structure–property relationships and multifunctionality. This Special Issue aims to bring together recent advances in the synthesis, functionalization, characterization, and applications of magnetic nanoparticles, highlighting innovative strategies that bridge fundamental studies with real-world applications. By showcasing interdisciplinary contributions, this collection underscores the fundamental role of magnetic nanomaterials in addressing global challenges through technological innovation and sustainable solutions. We look forward to receiving your contributions.

Guest Editors

Prof. Dr. Alex Campos

Faculty UnB Planaltina, International Physics Center, University of Brasília, Brasília 73345-010, DF, Brazil

Dr. Guilherme Gomide

Instituto de Física, Universidade de Brasília, Brasília 70904-970, DF, Brazil

Deadline for manuscript submissions

31 December 2025

Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.5

mdpi.com/si/238079

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

mdpi.com/journal/applsci

Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.5

mdpi.com/journal/applsci

MDPI

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, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)