



Advanced Nanotechnology in Agrochemistry and Agriculture

Guest Editors:

Prof. Dr. Shamsul Hayat

Department of Botany, Faculty of Life Sciences, Aligarh Muslim University, Aligarh 202001, Uttar Pradesh, India

Dr. Mohammad Faizan

Botany Section, School of Sciences, Maulana Azad National Urdu University, Hyderabad 500032, Telangana, India

Deadline for manuscript submissions:

closed (30 September 2023)

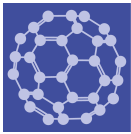
Message from the Guest Editors

The present Special Issue of *Nanomaterials* aims to present the current state-of-the-art use of nanoparticles to improve agricultural productivity, as well as the role of nanoparticles in agrochemicals (herbicides and pesticides). Agrochemicals are key in the transition between crop productivity and losses. In the present Special Issue, we invite contributions from leading groups in the field, with the aim of giving a balanced view of the current state of the art in this discipline.

We invite you to contribute your research articles related to nanotechnology in plants, specifically related to the chemical compositions and changes involved in the production, protection, physiochemical, and molecular physiological levels. Research articles describing ways to improve agricultural productivity are also welcome. In this Special Issue, both original research articles and reviews are welcome.

- Nanoparticles-mediated changes in plants;
- Nanorods and their applications in agriculture;
- Nanoparticles in agrochemistry;
- Abiotic stress and nanoparticles;
- Nanoparticles in herbicides and pesticides;
- Plant physiology and agrochemistry.





an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Shirley Chiang

Department of Physics, University
of California Davis, One Shields
Avenue, Davis, CA 95616-5270,
USA

Message from the Editor-in-Chief

Nanoscience and nanotechnology are exciting fields of research and development, with wide applications to electronic, optical, and magnetic devices, biology, medicine, energy, and defense. At the heart of these fields are the synthesis, characterization, modeling, and applications of new materials with lower nanometer-scale dimensions, which we call “nanomaterials”. These materials can exhibit unusual mesoscopic properties and include nanoparticles, coatings and thin films, metal-organic frameworks, membranes, nano-alloys, quantum dots, self-assemblies, 2D materials such as graphene, and nanotubes. Our journal, *Nanomaterials*, has the goal of publishing the highest quality papers on all aspects of nanomaterial science to an interdisciplinary scientific audience. All of our articles are published with rigorous refereeing and open access.

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, CAPlus / SciFinder, Inspec, and other databases.

Journal Rank: JCR - Q2 (*Chemistry, Multidisciplinary*) / CiteScore - Q1 (General Chemical Engineering)

Contact Us

Nanomaterials Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

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

mdpi.com/journal/nanomaterials
nanomaterials@mdpi.com
[X@nano_mdpi](https://twitter.com/nano_mdpi)