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New Nanotechnology in the Agriculture and Food Industry

Guest Editors:

Prof. Dr. Heyou Han

The National Key Laboratory of
Agricultural Microbiology,
College of Chemistry, Huazhong
Agricultural University, Wuhan
430070, China

Dr. Mohamed F. Foda

National Key Laboratory of Crop
Genetic Improvement, College of
Life Science and Technology,
Huazhong Agricultural University,
Wuhan 430070, China

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Message from the Guest Editors

Dear Colleagues,

The integration of nanotechnology in agriculture and the food industry marks a transformative advancement, promising significant enhancements in productivity, sustainability, and food safety. Nanotechnology has found applications ranging from targeted pesticide delivery to enhanced food packaging. This convergence of technology and traditional farming practices has opened new avenues for the confrontation of issues related to food security and quality, while minimizing humanity's environmental footprint. This Special Issue aims to showcase the latest advancements in nanotechnology that are specifically tailored to agriculture and food production. Our scope includes, but is not limited to, the development of novel nanomaterials for crop protection and soil management, innovative nano-sensors for agriculture monitoring systems, and the application of nanotechnology in food processing and preservation. The objective of this Special Issue is to provide a comprehensive platform for researchers to discuss the impacts, challenges, and future directions of nanotechnology in this critical sector.

Prof. Dr. Heyou Han
Dr. Mohamed F. Foda
Guest Editors



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Special Issue



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Editor-in-Chief

Prof. Dr. Eugenia Valsami-Jones

School of Geography, Earth and
Environmental Science,
University of Birmingham,
Birmingham B15 2TT, UK

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.

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Nanomaterials Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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