

## Special Issue

# Recent Advances and Challenges of Nanotechnology in Food

### Message from the Guest Editors

In the food sector, nanotechnology can be applied in agricultural production, in the processing of foodstuffs, and in food-contact materials. In agronomy, nanotechnology has been used to recombine DNA and for the nano-modification of fertilizers and pesticides. Nanomaterials have also been widely used in nutraceuticals: nano-micelles for nutrient delivery, nanoencapsulation for the controlled release of nutrients (proteins, antioxidants, and flavors), and food fortification. In the packaging sector, nanotechnologies have been used as barriers, coatings, and release tools; for the modification of permeability; for the growth of barrier properties; to provide increased resistance; and to produce antimicrobial surfaces or hydro- or liporepellent surfaces. Therefore, nanotechnologies are suitable for food control as well. Many uses are found, including the determination of contaminants and bioactive compounds (mycotoxins, pesticides, drug residues, allergens, probable carcinogenic compounds, etc.). This Special Issue aims to collect original research papers and review articles addressing all areas mentioned above and all applications of nanotechnology in food.

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### Guest Editors

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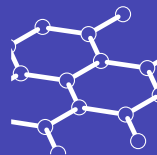
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### Deadline for manuscript submissions

closed (20 January 2023)



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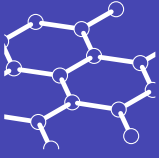


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## About the Journal

### Message from the Editor-in-Chief

*Applied Nano* (ISSN 2673-3501) is an international and interdisciplinary open access journal devoted to publish original works (reviews, regular research papers and communications) in any field of study involving the application of nanoscience and nanotechnology. Submissions are expeditiously and rigorously reviewed by peers, in order to insure the highest scholarly standards. It will thus include papers owing to a wide range of areas, covering chemistry, physics, materials science, biosciences, medicine, environmental and water sciences, energy storage and conversion, electronics, to make a few relevant examples.

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### Editor-in-Chief

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#### Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 15.7 days after submission; acceptance to publication is undertaken in 4.7 days (median values for papers published in this journal in the second half of 2025).