Special Issue

Research for Food Contact Materials and Sensors Based on Nanomaterials

Message from the Guest Editor

Recent trends in the circular economy and nanotechnology include novel and innovative applications in the food processing and preservation sector, which is rather recent compared with their use in biomedical and pharmaceutical applications. Nanomaterials and nanostructured materials are being used in various sectors of food sciences, such as nanosensors, new packaging materials, and encapsulated food components. Nanomaterials such as nanoclays, natural zeolites, mesoporous silicas, silver, copper, activated carbon, carbon nanotubes, carbon quantum dots, zinc oxide, titanium dioxide, copper oxide, and magnesium oxide are some of the most frequently used in food packaging systems to improve the mechanical and barrier properties and enhance antimicrobial activity. With this Special Issue, we hope to explore the application of nanotechnology in food safety by utilizing the latest advances in the related fields of nanosensors/nanofabrication technologies/nano-filtration membranes/nano-catalytic technologies in order to promote the relationship between food quality and safety and human dietary health.

Guest Editor

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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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