

Special Issue

Bio-Nanocomposite Coatings: A Potential Strategy to Improve the Overall Performance of Food Packaging Materials

Message from the Guest Editors

Multiple efforts have recently been made at both academic and industrial levels to replace current food packaging systems, mostly relying on environmentally impacting materials, with high-performing and more sustainable solutions. In this scenario, the involvement of natural biopolymers such as proteins, carbohydrates, and lipids as coating agents to yield alternative packaging configurations has become a trendy and fascinating research topic. With the current Special Issue, we would like to catch the attention of food/material scientists, engineers, and technologists, and invite them to contribute via original research papers, review articles, and short communications. Research areas may include but are not limited to the following ones:

- Bio-nanocoated packaging systems;
- Evaluation the properties of coated systems;
- Migration from packaging materials;
- Surface behavior of coated systems;
- Interaction between the coating and employed substrate;
- Shelf-life tests;
- Mathematical modeling/simulation of phenomena taking place during food preservation;
- Scaling up of equipment related to coating processes;
- Economical/life-cycle assessment analyses.

Guest Editors

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Deadline for manuscript submissions

closed (31 January 2025)



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About the Journal

Message from the Editorial Board

Now more than ever, research is asked to deliver knowledge and technologies to solve the major challenges faced by our society. The development of new materials and devices for (without the ambition to be exhaustive) energy, health and food technology, together with the need for establishing processes that reduce the impact on critical resources and the environment, is indeed in the spotlight of most contemporary research. Surface science and engineering play a key role in this regard, with an incredible potential in delivering new and deep scientific understanding and technical solutions essential to solve most of the major societal challenges.

Coatings is a well-established, peerreviewed, online journal dedicated to the vibrant field of surface science and engineering. Coatings publishes original research articles that report cutting-edge results and review papers that make the point on the hottest research topics.

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