Special Issue

Edible Functionalized Protein Films and Coatings: Engineering Tomorrow's Sustainable Food Packaging Solutions

Message from the Guest Editors

The future of food packaging is shaped by the United Nations’ sustainable development goals (SDGs), including through the innovative use of functionalized proteins to obtain edible packaging. This is becoming a popular choice for perishable food items, preserving both their nutritional value and sensorial characteristics while ensuring food safety. Therefore, a forward-thinking approach to develop eco-friendly and efficient packaging for the food industry is needed. We invite researchers to submit manuscripts on the following topics and their related areas:

- The development and characterization of sustainable whey-based packaging for improved barrier and mechanical properties;
- Functionalized whey proteins with antimicrobials, antioxidants, or other functional compounds for smart food packaging solutions, emphasizing their mechanism of action;
- Valorization of whey and other by-products in biodegradable packaging based on circular economy principles;
- Biocompatibility between innovative composite whey packaging and different food matrices;
- Generating added value to food stakeholders through innovative whey-based food packaging solutions.

Guest Editors

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Prof. Dr. Anton Ficai

Deadline for manuscript submissions

closed (20 June 2025)

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

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