

## Special Issue

# Nano-Enhanced Biodegradable Polymers for Sustainable Food Packaging

### Message from the Guest Editor

Today, nanotechnology and sustainability are concepts globally affecting research and technological advancement. In the field of food packaging, research on nanotechnology has led to the use of nanomaterials and nanoparticles being proposed, such as metal oxides, nanoclays, nano-zeolites, and carbon-based nanomaterials, as both polymer reinforcements and antioxidant/antibacterial agents. Further, increasing interest in sustainability has been the precursor to novel strategies in food packaging, including the following: replacing (i) synthetic chemical additives with natural antioxidant/antibacterial agents, such as natural extracts and essential oils derived by food byproducts, and (ii) of polymers derived from fossil fuels with biobased and biodegradable polymers, such as polylactide acid, chitosan, gelatin, starch, and cellulose. This Special Issue aims to showcase recent innovations in nano-enhanced biodegradable polymers for sustainable food packaging through high-quality research papers.

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### Guest Editor

Dr. Aris Giannakas

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### Deadline for manuscript submissions

closed (25 September 2025)



## Polymers

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### Message from the Editor-in-Chief

Since its foundation in 2009, *Polymers* has developed into an internationally renowned, extremely successful open access journal. The editorial team and the editorial board dedicatedly combine open-access publishing and high-quality rigorous peer reviewing. The performance of the journal has proven this strategy to be well-suited and highly successful. This is reflected in the increasing impact factor of *Polymers*, the most recent one being 4.9.

I would like to invite you to contribute to the success of the journal by sending us your high quality research papers. We would be pleased to welcome you as one of our authors.

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### Editor-in-Chief

Prof. Dr. Alexander Böker

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