

Special Issue

Collagen-Based Polymeric Materials for Emerging Applications

Message from the Guest Editor

This Special Issue highlights the rapidly evolving field of collagen-based polymeric materials and their transformative potential across a range of emerging applications. As a naturally abundant, biodegradable, and biocompatible protein, collagen offers unique advantages for designing advanced functional materials. Recent innovations in processing techniques—such as electrospinning, 3D bioprinting, solvent casting, and cross-linking methods—have enabled the development of collagen-based polymers with tailored mechanical, structural, and biological properties. These materials are increasingly being utilized in areas such as tissue engineering, regenerative medicine, drug delivery systems, smart wound dressings, edible packaging, and bio-integrated electronics. This Special Issue brings together research focusing on the synthesis, modification, and functionalization of collagen-derived polymers, as well as their integration with synthetic or natural additives to enhance performance. This Special Issue aims to accelerate the development and real-world deployment of collagen-based polymeric materials in innovative and socially impactful applications.

Guest Editor

Prof. Dr. Ying Pei

College of Materials Science and Engineering, Zhengzhou University,
Zhengzhou 450001, China

Deadline for manuscript submissions

closed (30 June 2026)



Polymers

an Open Access Journal
by MDPI

Impact Factor 5.8
CiteScore 11.0
Indexed in PubMed



mdpi.com/si/261839

Polymers
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
polymers@mdpi.com

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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 5.8.

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.

Editor-in-Chief

Prof. Dr. Alexander Böker

Fraunhofer-Institut für Angewandte Polymerforschung, Lehrstuhl für
Polymermaterialien und Polymertechnologie, Universität Potsdam,
Geiselbergstraße 69, 14476 Potsdam-Golm, Germany

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