

Special Issue

Recent Advances in Biodegradable Polymers and Biocomposites

Message from the Guest Editors

Biodegradable polymers and biocomposites find applications in many market segments. Among their main advantages are their ability to meet mechanical requirements within a certain range of time, after which they degrade and are naturally absorbed at the end of the product's life cycle. This ability can thus be used in the controlled release of substances such as fertilizers, perfumes, drugs, etc. Single-use products can be easily disposed of by composting, reducing the produced waste. In the segment of medical devices, these materials are used in combination with cells to produce temporary implants that replace the mechanical functions of the extracellular matrix, while the biological tissue gradually regenerates and replaces the implant that degrades and is naturally assimilated by the human body, replacing transplants, autografts, or xenografts. However, the development of these materials still faces great challenges, namely in the characterization of biodegradation and erosion, associated with the progressive loss of mechanical properties and mass, respectively, until its complete erosion and assimilation, and the release kinetics of substances.

Guest Editors

Dr. André Ferreira Costa Vieira

Center for Mechanical and Aerospace Science and Technologies (C-MAST-UBI), Universidade da Beira Interior, R. Marquês D'Ávila e Bolama, 6201-001 Covilhã, Portugal

Dr. Joana Costa Vieira

Fiber Materials and Environmental Technologies Unit (FibEnTech-UBI), Universidade da Beira Interior, 6201-001 Covilhã, Portugal

Deadline for manuscript submissions

20 December 2025



Applied Sciences

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 5.5



mdpi.com/si/224602

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

mdpi.com/journal/

[appls](https://appls.mdpi.com)





Applied Sciences

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 5.5



[mdpi.com/journal/
applsci](https://mdpi.com/journal/applsci)



About the Journal

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

Prof. Dr. Giulio Nicola Cerullo
Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32,
20133 Milano, Italy

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), Ei Compendex, Inspec, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)