Special Issue

Advances and Applications in Biodegradable and Bio-Based Materials and Composites

Message from the Guest Editor

Advances and applications in biodegradable and bio-based materials and composites represent a pivotal shift towards sustainable and eco-friendly solutions across various industries. Biodegradable materials derived from renewable resources, such as plants or microorganisms, offer a promising alternative to traditional plastics, reducing reliance on finite fossil fuels and minimizing environmental pollution. These materials encompass a wide range of polymers and composites engineered through green chemistry principles to enhance biodegradability while maintaining the desired mechanical properties. Applications span various industries, including packaging, agriculture, automotive, and biomedical sectors, where biodegradable and bio-based materials offer solutions for reducing waste and the reliance on finite resources. Considerations such as biocompatibility and mechanical properties drive the development of these materials, paving the way for a more sustainable future and contributing to the transition towards a circular economy. In this Special Issue, we aim to gather high-quality research on the advances and applications in biodegradable and bio-based materials and composites.

Guest Editor

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Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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