

Special Issue

Sustainable Biodegradable Fibers: Materials, Processing and Performance Characterization

Message from the Guest Editor

This Special Issue focuses on the development, processing, and characterization of biodegradable fibers derived from sustainable and renewable materials. As global industries increasingly seek environmentally responsible alternatives, biodegradable-fiber technologies play a key role in reducing plastic waste, enhancing circularity, and advancing carbon neutrality. Topics of interest include novel biodegradable polymer and fiber formulations, natural-fiber-reinforced composites, fiber fabrication techniques (e.g., electrospinning, melt spinning), and performance characterization, with applications spanning fields such as textiles, biomedical engineering, packaging, agriculture, and road engineering. The purpose of this Special Issue is to showcase interdisciplinary research that bridges the design of biodegradable fibers with their real-world applications. While the existing literature addresses biodegradable polymers and natural fibers separately, this Special Issue offers a comprehensive perspective on integrating such materials into a range of practical domains.

Guest Editor

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I encourage you to contribute a research or comprehensive review article for consideration for publication in Sustainability, an international open access journal which provides an advanced forum for research findings in areas related to sustainability and sustainable development. The journal publishes original research articles, reviews, conference proceedings (peer reviewed full articles) and communications. I am confident you will find the journal contributes to enhancing understanding of sustainability and fostering initiatives and applications of sustainability-based measures and activities.

Editor-in-Chief

Prof. Dr. Steve W. Lyon

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