



*Special Issue Reprint*

## **Biodegradable Polymers and Textiles**

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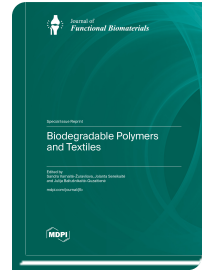
Sandra Varnaitė-Žuravliova

Jolanta Sereikaitė

Julija Baltušnikaitė-Guzaitienė

ISBN 978-3-7258-3227-9 (Hardback)

ISBN 978-3-7258-3228-6 (PDF)



This Special Issue explores the growing interest in biodegradable polymers and textiles, and their diverse applications, with a focus on sustainable materials developed from renewable resources. These polymers, derived from waste materials and bioresources like food, agricultural waste, starch, and cellulose, are engineered to decompose within specific timeframes, offering environmentally friendly disposal methods. The issue covers various studies that highlight the potential of biodegradable polymers in industries such as medical textiles, fashion, and nanotechnology, underscoring their benefits in biodegradation, carbon reduction, and raw material regeneration. The study also delves into advancements in biopolymers, including bacterial silk proteins, bacterial cellulose-based materials, and biodegradable films, which show promise for applications in wound healing, tissue engineering, and fashion. Furthermore, innovations in the synthesis of silver nanoparticles, collagen scaffolds, and composite materials demonstrate their utility in biomedical fields, offering sustainable, cost-effective, and environmentally safe alternatives. Overall, this collection of papers emphasizes the importance of further research and technological advancements to optimize the potential of biodegradable polymers, with a focus on enhancing their physical properties, scalability, and long-term clinical performance. The Special Issue offers valuable insights for future applications in sustainable manufacturing and medical solutions.



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