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Advanced Cellulose-Based Materials: From Nanoparticles to Complex Structures and Composites

Guest Editor:

Dr. Selestina Gorgieva

Institute of Engineering Materials and Design, Faculty of Mechanical Engineering, University of Maribor, Smetanova 17, 2000 Maribor, Slovenia

Deadline for manuscript submissions: closed (30 November 2023)

Message from the Guest Editor

Along with its supreme presence in Nature, cellulose holds versatile and renewable engineering material attributes that have gained momentum in many technological areas. Its nano-forms (nanocrystals, nanofibrils) are types of intermediate products, obtained either by bottom-up bio-synthetic approaches (e.g., bacteria- or fungi-mediated fermentation) or top-down chemical and mechanical disintegration approaches applied to plants and trees. In both cases, the resulting nanocellulose delivers distinctive, well-documented features, making it a highly unique material family with an immense research portfolio.

This Special Issue aims to attract publications with recent theoretical and experimental findings related to cellulose and nanocellulose isolation (top-down) or bio-processing (bottom-up), as well as its future manipulation in terms of selective modification, mixing, shaping and compounding with other non-cellulosic components in light of more demanding application niches. We welcome the submission of research and review papers delivering new data and collecting and critically commenting on recent publications, giving the future perspective in this attractive research area.



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Editor-in-Chief

Prof. Dr. Alexander Böker

Lehrstuhl für Polymermaterialien und Polymertechnologie, University of Potsdam, 14476 Potsdam-Golm, Germany

Message from the Editor-in-Chief

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