



Advances in Materials Science and Engineering

Special Issue on **Advances in Polysaccharides-Based or Reinforced Materials**

CALL FOR PAPERS

Current trends and global developments of novel materials include the reuse of polysaccharides in different applications such as in pulp and paper industries, biofuels and biogas production, wastewater treatments, reinforced materials, coating, and pharmaceutical and cosmetic industry.

The perspectives are to obtain new materials with improved properties at low cost by using easy and novel technologies. Advances in analytical techniques to determine the structure, the composition, or the molecular weight of polysaccharides, along with the characteristics of the developed products, are becoming more valuable at present.

The aim of this special issue is to present the latest developments in polysaccharide-related research, involving structure, properties, functionalization, analysis, and application towards the manufacturing of materials. The use of polysaccharides from natural resources, especially those obtained from wastes, works in a twofold way to minimize environmental impact. Not only does it allow for their valorization, but it is also a chance to replace nonbiodegradable materials by ecofriendly ones.

This issue will improve the multidisciplinary expertise from industry, academia, and research institutions to communicate their knowledge in polysaccharide science and technology. It may stand as a platform to exchange information on basic and applied research for the development of innovative products composed and derived from polysaccharides, with the contributions of original research articles and reviews on recent advances.

Potential topics include, but are not limited to:

- ▶ Biofuel and biogas production
- ▶ Biomass conversion
- ▶ Biomaterials
- ▶ Bioprocess engineering and fermentation technology
- ▶ Composites
- ▶ Extraction of natural products
- ▶ Functionalization of polysaccharides
- ▶ Green technology
- ▶ Mechanical properties
- ▶ Nanofibers
- ▶ Natural fibers

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