

Special Issue on
Synthesis and Applications of Polysaccharide Functional Materials

CALL FOR PAPERS

In general, plant polysaccharides, like starch, cellulose, pectin, and a few others, have recently received enormous attention. Some members of the international scientific community have even proposed that a polysaccharide century is coming. It has been reported that plant polysaccharides have some remarkable properties, including immunomodulatory, antitumor, hypoglycemic, antiviral, antibacterial, and antiradiation effects. Plant polysaccharides play an important role for society, and that role is growing.

Plant polysaccharides are widely used as source to prepare the bioethanol, biomaterials, and biochemicals. In comparison with the fields of bioenergy and chemicals, polysaccharide functional materials have different properties in the materials fields, having different potential applications. For example, polysaccharide functional materials are widely used in environmental protection, water treatment, biomedical, and other fields owing to their particular characteristics such as improved mechanical properties, biocompatibility, and biological activity. We can expect polysaccharide functional materials to provide reference for the resourceful, functional, high-value, and recycling applications of biomass.

The potential applications of polysaccharide functional materials depend on their properties. However, the properties depend on their synthesis method, structure, shape, size, size-distribution, and so on. Therefore, development of simple and low-cost methods and technologies for the synthesis of polysaccharide functional materials is of great importance for improving their properties, further broadening their industrial potential applications. Obviously, polysaccharide functional materials have improved functions and excellent properties, which are different from general polysaccharide materials. The aim of this issue is to explore the new synthesis methods and potential applications of polysaccharide functional materials. The recent development of polysaccharide functional materials for their biomedical applications will be greatly appreciated. Moreover, we are particularly interested in the interaction and mechanism between different types of polysaccharide functional materials.

The original and review articles are welcome. This special issue focuses on excellent synthesis methods and potential applications of polysaccharide functional materials. We expect that the authors try to develop new applications in various fields due to the function and properties of polysaccharide materials.

Potential topics include but are not limited to the following:

- Synthesis and characterization methods of polysaccharide functional materials
- Films, hydrogels, and aerogel from polysaccharide functional materials
- Properties of polysaccharide functional materials
- Biomedical applications from polysaccharide functional materials
- Interaction and mechanism between different types of polysaccharide functional materials
- Other potential applications of polysaccharide functional materials

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/ijps/sapfm/>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

Lead Guest Editor

Ming-Guo Ma, Beijing Forestry University, Beijing, China
mg_ma@bjfu.edu.cn

Guest Editors

Jing Bian, Beijing Forestry University, Beijing, China
bianjing31@bjfu.edu.cn

Jie-Fang Zhu, Uppsala University, Uppsala, Sweden
jiefang.zhu@kemi.uu.se

JingSan Xu, Queensland University of Technology, Brisbane, Australia
jingsan.xu@qut.edu.au

Feng Chen, Chinese Academy of Sciences, Shanghai, China
fchen@mail.sic.ac.cn

Submission Deadline

Friday, 23 March 2018

Publication Date

August 2018