

Special Issue on
Polysaccharide Modifications and Characterization

CALL FOR PAPERS

Modified polysaccharides not only exhibit diverse functionality but also find applications in the textures of foods accessible to consumers of all demographics, regardless of income, age, or gender, across different geographical locations. The selective inclusion of trending applications in food preservation, novel modification methods, and the commercial potential of these polysaccharides reflects the immediate demand for their use in enhancing the functional and textural aspects of various food products.

The prospect of commercial expansion is a focal point to be addressed in this communication, as the modified polysaccharides show promise for widespread application. The contributions of experts in the field, drawing from their latest research and extensive experience, constitute the core focus of this guest issue proposal. Through this collaborative effort, we aim to cover a spectrum of topics related to modified polysaccharides, fostering a deeper understanding of their potential in various industries.

Polysaccharides, with their targeted modifications, have significantly expanded their range of applications, extending to baked goods, frozen products, beverages, and advancements in edible coatings in comparison to native alternatives. The extraction and modification of polysaccharides introduce novel resources of economic significance, not only for their contributions to the food and pharmaceutical industries but also for their relevance in the petrochemical and textile sectors. The biodegradable nature of polysaccharides further enhances their appeal, providing an additional advantage when working with these compounds. The exploration of these highlighted traits is essential in the current landscape, considering the diverse opportunities polysaccharides present across various industries.

This Special Issue welcomes original research and review articles addressing a range of topics, preferably through the identification of alternative polysaccharide sources and driving them under available modification terms (non-thermal, chemical, and enzymatic). The focus is on producing alternative polysaccharides with diverse applications in food processing and preservation, surpassing their traditional roles as thickeners, stabilizers, and texturizing agents. Furthermore, the issue delves into the development of biodegradable packaging films, coatings, and encapsulation methods, offering insights into the potential current and prospects for industry professionals, researchers, and academicians in the fields of food, pharmaceuticals, and nutraceuticals. This communication is also valuable for budding researchers, providing a better understanding of the existing scope of polysaccharides. The overarching goal is to explore the realm of polysaccharides and contribute to the creation of healthier food products while extending the shelf life of these products through innovative approaches.

Potential topics include but are not limited to the following:

- ▶ Polysaccharides as functional food and nutraceuticals; Therapeutics approach
- ▶ Physical/chemical/biological modifications of polysaccharides and their characterization
- ▶ Polysaccharides and nanotechnological tactics
- ▶ Polysaccharides such as mucilages, dietary fibers, and prebiotics
- ▶ Enzymatic, microbial, and chemical modifications of polysaccharides
- ▶ Polysaccharide modifications viz modern day non-thermal technologies, such as cold plasma, microwave, and so forth
- ▶ Polysaccharide based coating, encapsulation, and composite films as an efficient food preservation strategy
- ▶ Dual modifications and other nano-technologically driven modifications for conventional and non conventional polysaccharides

Authors can submit their manuscripts through the Manuscript Tracking System at <https://review.wiley.com/submit?specialIssue=556464>.

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

Lead Editor

ajay singh, Mata Gujri College, India
ajay3singh@gmail.com

Guest Editors

Bhupinder Kaur, University of
Nebraska–Lincoln, Lincoln, USA
bhupinder.kaur@unl.edu

Praveen Kumar Sappati, Indian Institute
of Technology Kharagpur, Kharagpur,
India
pks@agfe.iitkgp.ac.in

Bhupendra M Ghodki, Indian Institute
of Technology Kharagpur, Kharagpur,
India
bmg@agfe.iitkgp.ac.in

Submission Deadline

Friday, 19 July 2024

Publication Date

November 2024