



## Polysaccharide-Based Polymers: Synthesis, Characterization and Applications

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### Message from the Guest Editor

As an important bioinformation macromolecule, bio-synthesized polysaccharides are widely distributed in animals, plants, microorganisms, and algae, which present high biodegradability, good biocompatibility, and unique physiological activity. They have been applied in many industrial fields, such as biomedicine, food, and materials in the form of food additives, functional carriers, etc. The structural differences of polysaccharides, such as monosaccharide composition, glycoside bond connection mode and configuration, chain structures and molecular weight, determine their functional properties (such as solubility, gel, etc.), physiological activities (such as antioxidant, immunoregulation, antitumor, etc.) and modifiable properties (enzymatic, chemical, physical modification, etc.). Therefore, it is of great practical significance and application value to clearly analyze the chemical structure of polysaccharides and accurately reveal the structure–activity relationship for the design and development of more functional foods and drugs with potential health effects and polysaccharide-based functional materials that can be used in various application scenarios.





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