



## Cellulose and Its Applications

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### Message from the Guest Editor

Exponential growth in the use of synthetic polymers has led to the accumulation of plastic wastes in the environment, which is causing significant ecological and environmental pollution problems. Such problems can only be solved by finding substitutes for synthetic polymers, which are biodegradable and nontoxic in nature. Cellulose is a naturally abundant polymer with many interesting properties; both natural cellulose and its chemically modified derivatives are used in areas such as biomedical science, environmental science, catalysis, and sustainable packaging. Such wide use of cellulose is facilitated by its easy accessibility, biocompatibility, high mechanical stability, and unique physiochemical properties. Cellulose has been employed in water purifications as functional fibers, nanoadsorbents, membranes, and hydrogels to remove all types of dissolved pollutants. In addition to cellulose, many other natural polymers, such as starch, alginate, and chitin, are used to mitigate the environmental problems and as a potential substitute to synthetic polymers. This Special Issue will cover all cellulose-related materials and biopolymers used in various applications.





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