International Journal of Polymer Science

Special Issue on

Plant Cell Wall Polymers Refinery for Bioenergy, Biochemicals, and Biobased Materials

CALL FOR PAPERS

Plant cell wall biomass is the most abundant resource on the earth, being known as green, renewable, cheap, biocompatible, and environmentally friendly. It has been used for constructing materials and fuels since the ancient times and attracted increasing interest in the recent decades, due to the energy crisis and environmental concerns. Present interests are focused on producing biofuels, chemicals, and materials with these polymers in replacing fossil resources. The major challenges for these researches includes isolation and purification of plant cell wall polymers, also known as biomass pretreatment, plant cell wall degradation as a whole catalyzed by liquefaction, pyrolysis, or fermentation, isolated polymer/fractions conversion by decomposition to platform chemicals or chemical modification to biobased materials, and nanocellulose extraction and application.

The purpose of this special issue is to publish high-quality research papers as well as review articles addressing recent advances on plant cell wall polymer and their application in chemicals, biofuels, and materials production. We sincerely invite authors to publish high quality original research work or review papers within the scope of this special issue.

Potential topics include but are not limited to the following:

- Plant cell wall biomass pretreatment and saccharification
- Liquefaction, pyrolysis, or bioconversion of plant cell wall polymers
- Platform chemicals and biobased materials from plant cell wall and its polymers
- Chemical, biochemical, and physical modifications of plant cell wall and its polymers
- Nanocellulose: extraction, characterization, and application

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

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

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