Special Issue

Research on Genetic Improvement of Wood Quality in Material Applications

Message from the Guest Editor

Lignocelluloses are the largest renewable resources on Earth, which are considered to replace fossil-based products to produce chemicals, energy products, and fuels as the ideal raw materials. For a long time, lignocellulosic biomass has been considered a potential sustainable mixed sugar source, which can be used to ferment biomaterials and biofuels. However, "biomass recalcitrance" is created by the tight binding of cellulose, hemicelluloses, and lignin, which is also the major obstacle for biorefinery. The previous research showed that, after cloning the gene-encoding enzymes involved in lignin biosynthesis, the transgenic plants were obtained, and the lignin composition and structure were changed. If wood quality such as contents and components of cell wall can be altered by regulating the expression of genes in the biosynthetic pathway, it will improve the efficiency of biorefinery and lower the cost. Please submit your work representing the recent progress related to genetic improvement of wood quality in material applications, to ensure the transition of these systems from laboratories to industrial production.

Guest Editor

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Message from the Editor-in-Chief

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. Materials provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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