

Special Issue

Lignin—Chemistry and Materials: Past, Present and Future

Message from the Guest Editors

Many of the current environmental problems result from the exploitative use of fossil chemicals and materials. Plant-based, and thus renewable, natural polymers represent valuable alternatives for the production of energy, platform chemicals and materials. Lignin, as abundant part of lignocellulosic biomass, offers a broad variety of features that in principal makes it a very valuable starting material; its complex structure and infamous heterogeneity, however, often present major challenges. We invite everyone concerned with the isolation, characterisation and upgrading of lignin into chemicals and materials to share their latest developments. Rather than arriving at a Special Issue that reads like a mere continuation of mainstream works, we would like to use the opportunities offered by an open access journal to identify novel, highly synergistic routes, fundamentally new approaches and out-of-the-box applications to existing refining and chemical production processes and materials development. We also encourage studies related to the safety of lignin-based (nano)materials in situ, such as to also promote the use of lignins in biomedical fields.

Guest Editors

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As the premier open access journal dedicated to molecular chemistry, now in its 30th year of publication, the papers published in *Molecules* span from classical synthetic methodology to natural product isolation and characterization, as well as physicochemical studies and the applications of these molecules as pharmaceuticals, catalysts, and novel materials. Pushing the boundaries of the discipline, we invite papers on all major fields of molecular chemistry and multidisciplinary topics bridging chemistry with biology, physics, and materials science, as well as timely reviews and topical issues on cutting-edge fields in all of these areas.

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