Special Issue

Reactions for the Production of Levulinic Acid and for Its Transformations into Value-Added Chemicals

Message from the Guest Editors

The challenge for chemists today is to develop sustainable processes to transform biomasses to chemicals and fuels. In particular, one of the goals for the future is biomass conversion to value-added chemicals by heterogeneous, homogeneous and enzymatic catalysts. Levulinic acid (LA) is one of the twelve platform chemicals proposed by the US Department of Energy. In fact, LA is a versatile building block for the synthesis of various organic compounds that can be used for example as fuel additives, herbicides, pharmaceutical, flavor, precursors in the polymer industries. Therefore, production of LA has become one of the key steps in biomass conversion. LA can be produced from the dehydration of hexose, from dehydration of xylose as well as from carbohydrates such as starch or cellulose and also directly from raw biomasses. The aim of this Special Issue is to present a current overview of recent developments in the field of the still open challenges for both LA production and LA applications. All researchers working in the field are cordially invited to contribute original research papers or reviews to this Special Issue of *Molecules*.

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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