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Catalysts in Biomass Valorization

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Message from the Guest Editors

The main goal of this Special Issue is to compile and review the current state-of-the-art research on the design of nanoscale catalysts and the tuning their performance for dedicated selective biomass-to-green-chemicals transformations. Studies examining the role of reactivity in selected biomass conversion reactions involving both homogeneous and heterogeneous catalysts will be highly appreciated. Of particular interest will be the exploration of active sites and electronic structures of catalysts during reactions, which can lead to the development of a new class of active materials with identified structures. With this Special Issue, we are expecting to gain new insights from both molecular modeling and experimental methods into catalysts' topology and catalytic properties. The overall aim is to tackle any unresolved problems and uncertainties to foster the development of the science and economy of catalysts design for the sustainable and environmentally friendly production of green chemicals from waste biomass.



