

Special Issue

New Strategies for Metal Catalysis in Heterogeneous System

Message from the Guest Editor

Active metal is a key component of the heterogeneous catalyst. The particle size and chemical state of the active sites play the remarkable role in reaction performance, including conversion, selectivity and stability. Recently, a series of strategies have been developed to regulate the metal catalysts, and a series of the novel catalysts have been emerged, such as single atom, cluster and nanoparticle catalysts. Simultaneously, it is crucial to discuss the metal-support interaction and support effects on active metal size distribution and chemical state. Additionally, in-situ characterization techniques are needed to unravel the influences of the catalyst structure and surface properties on reaction performance, as well as the reaction mechanism. This Special Issue will highlight the deep insights into the new strategies to design the efficient and robust metal catalysts in heterogeneous system and the topics on the advanced techniques to decipher the structure-activity relationship are also included.

Guest Editor

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Message from the Editor-in-Chief

As the premier open access journal dedicated to molecular chemistry, now in its 29th 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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