Special Issue

Advances in Transition-Metal-Catalyzed Synthesis

Message from the Guest Editor

Transition-metal catalysis has revolutionized organic synthesis: dramatically improved rates, yields and selectivities of known reactions and enabled new reactivities previously deemed inconceivable. It became indispensable for the synthesis of a broad range of valuable organic molecules spanning from simple synthetic building blocks to natural products, pharmaceuticals, organic electronics and polymers. The application of transition metal catalysis led to milder reaction conditions, fewer reaction steps and side products. As a result, the synthesis became cleaner, safer as well as less energy and time intensive. Despite the tremendous progress made recently, a lot of challenges remain on the way to designing new and improving existing synthetically useful catalytic transformations, developing more active and stable catalysts, as well as applying catalytic methods to the synthesis of complex organic molecules. This Special Issue focuses on some recent advances towards addressing these challenges.

Guest Editor

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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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