Special Issue

Highly Active Catalysts for Selective Hydrogenation

Message from the Guest Editors

Selective hydrogenation is one of catalytic transformations. The key to selective hydrogenation relies on the fabrication of efficient and selective catalysts. Unfortunately, improvements in selectivity are usually at the expense of catalytic activity; therefore, it remains a challenge to achieve high chemoselectivity without compromising activity. One prerequisite to the rational design of chemoselective catalysts is the understanding of the reaction mechanism that governs chemoselectivity. So far, largely depends on the adsorption strength and configuration of the reactants/intermediates on the surfaces of catalysts, which in turn are determined by the electronic and geometric structures of active sites. These issues should be further presented and appraised. This Special Issue will focus on the state of the art and outlooks of selective hydrogenation catalysis. Submissions in the form of original research articles and comprehensive reviews in the areas of designing excellent hydrogenation catalysts, developing new synthetic methods, and finding new mechanisms for selective hydrogenation catalysts are all welcomed.

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Deadline for manuscript submissions

closed (24 December 2023)

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