Special Issue

Synthesis, Characterization, or Applications of Novel Catalytic Nanoparticles

Message from the Guest Editors

Catalysis is one of the most important topics in material science. It is an outstanding route for the control of chemical reactions by changing the kinetics based on the specific physical-chemical property of materials, especially for nano-size materials. Recently, there have been great promotions in this subfield during the progress of nanomaterial science. Many factors, including light absorption, charge separation, reaction activity, have been extensively studied. Based on the improvement of catalytic property, the application has been extended to CO2 reduction, N2 reduction, as well as traditional organic synthesis. The different initial energy provides a higher energy density for the potential practical application. The various strategies, such as surface facets modification, band structure modification, external field assistance, have been concerned for a while. The recent progress is encouraged to be reported to further improve this subfield. This Special Issue aims to cover the recent progress and trends in synthesis, characterization, and applications of novel heterogeneous catalysts.

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