

Special Issue

Advances in Technologies for Catalyst Development and Catalyzed Reactions

Message from the Guest Editors

Effective catalysts can conveniently control the direction and rate of a reaction under suitable reaction temperature and pressure. Heterogeneous and electro-catalysis are receiving more and more attention in chemical and fuel synthesis, biomass conversion, wastewater treatment, energy generation, etc. However, there are numerous challenges such as catalyst deactivation, stability, search for low-cost catalysts, etc., in catalyst design with the correct set of properties. Additionally, multiple engineering challenges such as non-ideal mechanistic kinetics and thermodynamics need to be studied. This Special Issue aims to cover catalyst design and engineering challenges for various catalysts being developed for chemical and fuel synthesis, biomass conversion, wastewater treatment, energy generation, etc.

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