



State-of-the-Art Metallic and Bimetallic Nanoparticles and Their Catalytic Properties

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Message from the Guest Editors

Catalyst fabrication has significantly advanced in terms of manipulating the composition, size, and shape of nanoparticles. One of the primary objectives of industrial catalysis is to attain the best catalytic performance and selectivity of a single target product, while retaining a robust stability to avoid the deactivation process. Metallic nanoparticle catalysts are fabricated for this purpose using various synthetic approaches, and research on several catalytic processes shows that the appropriate nanoparticle shape and size improves its performance and selectivity. On the other hand, by combining two metals, bimetallic nanoparticle catalysts develop unique chemical and catalytic characteristics that their pristine single-metal nanoparticles do not exhibit.

The research topics of this Special Issue include (but are not restricted to) the following:

- The fabrication approaches of metallic and bimetallic nanoparticles and their composite catalysts
- Metallic and bimetallic-catalyzed reactions
- Organic transformation reactions
- Coupling reactions
- Catalytic oxidation





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Message from the Editor-in-Chief

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