

Special Issue

Metallic Nanoparticles in Heterogeneous Catalysis

Message from the Guest Editor

Heterogeneous catalysis is the prime mover of the majority of the chemical processes in the chemical industrial world. Environmental concerns also have a need for catalysts with high activity and selectivity. Besides bulk metallic catalysts, supported metallic nanoparticles are the basis of these catalytic systems. Nanoparticles have great advantages that originate from the high surface-to-volume ratio, the special surface concentrations of the different Miller indices planes, the different surface rearrangement and the cell parameters compared to the bulk counterparts. Nanoparticles that are anchored onto the surface of different metallic-oxide surfaces can open up an extra way of tuning catalytic activity and selectivity. In this Special Issue, we are focusing of the synthesis, characterization and application of selfstanding or supported mono- or multi-metallic nanoparticles in gas or liquid phase heterogeneous catalysis. It is my pleasure to invite you to submit a manuscript for this Special Issue. Full papers, communications, and reviews are all welcome.

Guest Editor

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Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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