Special Issue

Synthesis and Application of Nano-Catalyst

Message from the Guest Editors

Nano-catalyst is an indispensable part of heterogeneous catalysis, which is widely used in energy storage, clean energy, environmental protection and the synthesis of new materials. The preparation of catalysts with high activity, selectivity and stability is an important application of nanotechnology in the field of catalysis. This Special Issue aims to encompass original scientific papers, short communications, and reviews on innovative approaches for nano-catalyst preparation without any restrictions regarding the types of catalysts (zeolites, supported metals, MOFS, clays, carbons, nanotubes, structured catalysts, immobilized homogeneous catalysts, nanoreactors, membranes, etc.). Besides classical methods of preparation (hydrothermal synthesis, sol-gel methods, impregnation, precipitation, etc.), the editors also anticipate contributions addressing less conventional methods such as surfactant assisted preparations, mechanochemical or plasma activation, ALD, CVD, flame and combustion methods, application of ultrasound, etc. The editors especially welcome contributions in such emerging areas as numerical and theoretical approaches in catalyst preparation.

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Message from the Editorial Board

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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