Special Issue

Design and Synthesis of Nanostructured Catalysts, 2nd Edition

Message from the Guest Editor

Catalytic studies have been significantly advanced with the emergence of nanotechnology as a key technology of modern times. Nanotechnology has progressed synthetic techniques so that they may control and maintain uniformity in shape, size, morphology, and composition and excel catalytic performance. Nanostructured catalysts of metals, oxides, semiconductors, and other compounds transpire at the interface between heterogeneous and homogeneous catalytic processes and enable for high efficiency, better selectivity, great stability, easier recovery, and recycling. The nanostructured catalysts are the focus of this Special Issue, which aims to cover the synthesis of numerous nanostructured catalysts, such as metal oxides (alkali, alkaline, transition metal oxides), photocatalytic nanomaterials, nanofibrous materials, in addition to applications in CO2 conversion, hydrogen production, fuel cells, composite solid rocket propellants, energy storage, medicines, dye, bio-fuels production, water purification, and many other chemical reactions such as electrocatalytic processes, photocatalytic reactions, coupling reactions, hydrogenation, reduction reactions, oxidation reactions, and others.

Guest Editor

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