Special Issue

Heterogeneous Catalysts Optimization: From Material Design to Properties

Message from the Guest Editors

In recent decades, a wide range of synthesis routes have emerged for the optimization of catalytic nanostructured materials. The control of nanostructure composition, size, oxidation state, morphology and support–catalyst interaction are essential factors to produce highly active and stable catalysts. In that regard, the central role of the catalysts' design processes and the understanding of the main mechanisms involved, via atomic resolution characterization, has been demonstrated. This Special Issue focuses on state-of-the-art routes for catalyst design with tailored properties (reactivity, activity, and selectivity) toward specific processes with the goal of their implementation in future sustainable energy solutions. In addition, the comprehensive understanding of nanostructured materials' behavior via high-resolution characterization techniques leading to the discovery of new materials will be of high interest. We invite the scientific community to contribute here in the form of original research or review articles that explore the optimized design and study of catalytic materials.

Guest Editors

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Deadline for manuscript submissions

closed (20 December 2021)

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