Special Issue

Nanocatalysts for Hydrogen Production

Message from the Guest Editor

Rising concerns about the effects of global warming and climate change have led to a search for environmentally clean and energy efficient technologies. Hydrogen is one of the most popular new types of energy, which is considered as a clean energy carrier for the future. Hydrogen is primarily produced by the steam reforming of natural gas. Other methods have also been developed, such as the gasification of coal/biomass/waste, water splitting by electrolysis, and so on. The produced hydrogen can be utilized as an energy source by applying it to the fuel cells. This Special Issue collects original research papers, reviews, and commentaries focused on the production and utilization of hydrogen as a new energy. Submissions are welcome in the following areas: the synthesis, characterization, and application of new catalysts for hydrogen production and utilization; studies on the activity and stability of the developed catalysts evaluated by the conversion rate or turnover frequency; the identification of intermediates in the catalytic cycle; or the mechanisms of the catalytic reaction.

Guest Editor

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manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.6 days after submission; acceptance to publication is undertaken in 2.7 days (median values for papers published in this journal in the first half of 2025).

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