Special Issue

Advanced Nanomaterials -Synthesis and Applications in Catalysis

Message from the Guest Editors

Heterogeneous catalysis has always been about nanomaterials, because the interesting chemistry happens at the atomically structured, high energy interfaces. However, the recent advances in the rational design, conscious engineering and spatiotemporally detailed characterization of advanced nanomaterials have created previously unimaginable opportunities for today's catalysis scientists.

This special issue focuses on the synthesis and heterogeneous catalytic applications of advanced inorganic or hybrid nanostructures. All low-dimensional metallic and semiconducting materials are welcome. Reports focusing on the synthesis and characterization of these materials will be considered if a clear link between the structure and the catalytic properties is established. Purely theoretical works are out of the scope of the special issue, but papers combining theory and experiment are encouraged. From the reaction point of view, both model reactions and industrial catalytic applications are welcome. Preference will be given to works with an environmental relevance (e.g. CO2 reduction, N2 reduction, ORR, HER, water and air purification etc.)

Guest Editors

Prof. Dr. Ákos Kukovecz

Department of Applied and Environmental Chemistry, University of Szeged, Rerrich Bela ter 1, H-6720 Szeged, Hungary

Dr. Violeta Niculescu

National Research and Development Institute for Cryogenic and Isotopic Technologies-ICSI Ramnicu Valcea, 240050 Ramnicu Valcea, Romania

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Catalysts
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
catalysts@mdpi.com

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Prof. Dr. Keith Hohn

Carl R. Ice College of Engineering, Kansas State University, Manhattan, KS, USA

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