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Advanced Nanomaterials - Synthesis and Applications in Catalysis

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Deadline for manuscript submissions:
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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. CO_2 reduction, N_2 reduction, ORR, HER, water and air purification etc.)