Special Issue

Recent Advances in Catalytic Ordered Transformation and Applications

Message from the Guest Editors

This **Special Issue** includes a collection of articles focused on the recent advances in catalytic ordered transformation and applications. Catalytic ordered transformation (COT) is a chemical reaction in which certain chemical substances are converted into other types of products using selective catalysts. The topics that are covered include, but are not limited to:

- Tailored design of COT catalysts;
- Advanced synthesis methods to correlate the thickness, morphology and ionic states;
- Application of COT to energy storage and conversion;
- The effects of CO2 and water vapor adsorption on the surface of COT catalysts;
- Studies on the mixture of NOx, SOx and VOCs, NVOCs;
- Studies on MnOx as a catalyst support for FT synthesis and methane reformation;
- Controlled synthesis of single-atom catalysts for steam methane reformation and FT synthesis;
- conversion of low-cost industrial by-products to high-demand chemical products;
- Studies on the reaction pathway control that will reduce secondary reaction intermediates;
- Theoretical calculations of the thermo data of surface species and rate constants.

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