Special Issue

Metal Oxide Catalysts: Synthesis and Applications

Message from the Guest Editor

Metal oxides represent one of the most important classes of heterogeneous catalysts in catalysis. So far, it is well accepted that the performance of metal oxide catalysts largely depends on their size, shape (e.g., with high-index exposed facets), microstructure (e.g., with hollow/porous structure), defects (e.g., oxygen vacancies) and compositions. Therefore, synthetic strategies are the prerequisite for the development of metal oxide catalysts. This Special Issue of Catalysts on "Metal Oxide Catalysts: Synthesis and Applications" focuses on the development of synthetic procedures for metal oxides and their applications in heterogeneous catalysis. We warmly welcome contributions from the rational design and synthesis of metal oxides, including but not limited to novel synthetic strategies and advanced characterization. For the applications of metal oxide catalysts, modifications of currently used industrial catalysts, new model reactions and/or reasonable explanations for structure-performance relationships are also warmly welcomed.

Guest Editor

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