



Inorganic Chemistry

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Molecular Heterogeneous Catalysis

Our research focuses on the preparation, structural characterization and catalytic properties of transition metal compounds on surfaces of inorganic solids via Interfacial Coordination Chemistry (ICC) and Surface Organometallic Chemistry (SOMC).

The synthesis of high-surface area and porous solids and the modification of their surface centers aim on the development of materials with tailored surface properties and new single-site heterogeneous catalysts. We investigate catalytic reactions in gas and liquid phases, among which are the decomposition of nitrogen oxides, selective oxidation of hydrocarbons, hydrogenation of carbon-oxygen compounds, fine chemical synthesis, and C-C coupling reactions.

