Special Issue

Heterogeneous Catalysts for Petrochemical Synthesis and Oil Refining

Message from the Guest Editors

Heterogeneous catalysis is among the major solutions for cost-effective and sustainable industrial application and processing. The design and development of highly efficient and stable heterogeneous catalysts represent an emergent frontier for overcoming energy and environmental challenges. Many industrial petrochemical and oil refining processes are faced with new challenges that can be solved using heterogeneous catalysts. This Special Issue aims to cover the most recent progress and advances in the field of heterogeneous catalysts based on aluminosilicates, including zeolites and mesoporous materials, MOFs, COFs, and PAFs for petrochemical synthesis and oil refining. This includes but is not limited to hydroprocessing (including hydrotreating, isomerization, reforming, etc.), sulfur removal, catalytic cracking, C-1 chemistry, alcohols, fatty acids, and valuable chemicals synthesis.

- petrochemical synthesis
- oil refining
- zeolites
- aluminosilicates
- organic and metal–organic frameworks
- nanotubes
- hydroprocessing
- C-1 chemistry

Guest Editors

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