Special Issue

Research on Thermal and Catalytic Reaction Mechanism in Petrochemical Process

Message from the Guest Editors

Demand for petrochemicals has witnessed tremendous growth in recent years, and there is a dynamic market for olefins and monomeric hydrocarbons. The emerging crude oil-to-chemical technology can provide an opportunity for integrating operational refineries with chemicals. The integration of refining with the production of high value-petrochemicals can lead to a framework that will add value to both upstream and downstream sectors. Integration has been proven to be environmentally driven by utilizing various refinery waste and by-products. The importance of thermal and catalytic processes in the integrated refinery is high, particularly the process of the IGCC that generates electricity and byproducts as a feedstock for chemicals. The aim of this Special Issue is to advance and disseminate knowledge in all the related areas of thermal and catalytic reaction mechanisms in petroleum processes, especially new viewpoints and practices about the integration of refining with petrochemicals, as well as the control and treatment of pollutants involved. Of course, the articles presented in this Special Issue cover all areas of petroleum conversion and are not limited to the above areas.

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