

## Special Issue

# Research on Catalyst and Reaction Kinetics in Fossil Fuel Refining, Biofuels, Green Hydrogen and Petrochemicals

### Message from the Guest Editors

Since the 20th century, especially in the 90s, significant progress was made in refining fossil fuel and in renewable energies. Consequently, many remarkable developments have ensued regarding research on catalysis and kinetics in the oil, biorefineries and petrochemical industries. This Special Issue seeks high-quality works focusing on new trends and progress for obtaining petrochemicals, as well as fossil and renewable fuels, in a sustainable and economic way whilst considering the general aspects in kinetics for catalytic applications. Topics include the following: fundamentals of kinetics and catalysis for the development of refining and petrochemical industries; processes for aromatization, alkylation and bifunctional catalysis; catalyst deactivation and regeneration; fluid catalytic cracking; hydrocracking; hydrotreating; and catalytic distillation. In addition of these topics, research on the catalysis and kinetics of biofuels; green hydrogen; and catalytic recycling of polymers and biomass will be considered.

### Guest Editors

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### Deadline for manuscript submissions

31 October 2025



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