## **Special Issue**

# Modeling of the Catalytic Cracking

## Message from the Guest Editors

Significant efforts of the scientific community are focused on the development and optimization of processes and catalysts for the processing of heavy petroleum fractions, including catalytic cracking, which provides the production of about a quarter of the world's gasoline stock. An urgent task in the catalytic cracking technology is to increase the yield of gasoline fraction with high octane characteristics and olefin-containing gas. This problem is especially urgent for units integrated with petrochemical plants.

To solve this problem, an integrated approach is required using mathematical models based on considering the thermodynamic, kinetic, and hydrodynamic regularities of the catalytic cracking of high molecular weight hydrocarbons, as well as the regularities of catalyst activity change under conditions of changing feedstock composition.

This Special Issue is devoted to modeling of the catalytic cracking. Reviews and original research papers are invited from experimental methods for studying the process and cracking catalysts, including topics from catalyst deactivation to simulations of industrial plants.

#### **Guest Editors**

Dr. Elena N. Ivashkina National Research Tomsk Polytechnic University, Tomsk, Russia Dr. Emiliya D. Ivanchina National Research Tomsk Polytechnic University, Tomsk, Russia

## Deadline for manuscript submissions

closed (31 December 2021)



# **Catalysts**

an Open Access Journal by MDPI

Impact Factor 4.0 CiteScore 7.6



mdpi.com/si/70437

Catalysts
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
catalysts@mdpi.com

mdpi.com/journal/catalysts





# **Catalysts**

an Open Access Journal by MDPI

Impact Factor 4.0 CiteScore 7.6



## **About the Journal**

## Message from the Editor-in-Chief

## **Editor-in-Chief**

Prof. Dr. Keith Hohn

Carl R. Ice College of Engineering, Kansas State University, Manhattan, KS, USA

## **Author Benefits**

## **High Visibility:**

indexed within Scopus, SCIE (Web of Science), Inspec, Ei Compendex, CAPlus / SciFinder, CAB Abstracts, and other databases.

#### Journal Rank:

JCR - Q2 (Chemistry, Physical) / CiteScore - Q1 (General Environmental Science)

## **Rapid Publication:**

manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.6 days after submission; acceptance to publication is undertaken in 2.7 days (median values for papers published in this journal in the first half of 2025).

