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Catalytic Reforming for Syngas and H_2 Productions

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Message from the Guest Editors

Syngas is an important intermediate material for the production of hydrogen, ammonia, methanol, and synthetic hydrocarbon fuels. Syngas can be produced effectively via catalytic reactions from many sources, including natural gas, coal, biomass, or any hydrocarbon feedstock. Due to the advantages of non-toxic, clean, high heating value, and versatile applications, hydrogen plays a crucial role in the economy and it attracts significant interest from scientific researchers. In general, hydrogen can be obtained from the catalytically produced syngas via purification or separation techniques.

This Special Issue will provide insights into the challenges of catalytic syngas and hydrogen production. These challenges include cost-effective catalyst design, catalyst deactivation resistance, energy consumption reduction, CO_2 emission reduction, feedstock pretreatment, and hydrogen separation. Submissions are welcome in the form of original research papers or short reviews that reflect the state-of-the-art of this research area.