

Modified Catalysts and Process Optimization for Producing Synthesis Gas

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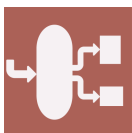
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Message from the Guest Editors

Synthesis gas, also known as syngas, has attracted enormous amounts of attention because it is the first building block of the petrochemical industries, one of the driving forces of economic growth. Syngas production is an important technology for reducing greenhouse gas emissions and for reducing energy insecurity, as it can be obtained from a range of feedstocks and can be used for several applications. Syngas is traditionally produced via the endothermic process of the catalytic steam-reforming of methane. However, researchers are developing new processes to reduce energy consumption. The topics of this Special Issue, entitled “Modified Catalysts and Process Optimization for Producing Synthesis Gas”, include, but are not limited to, the recent developments, methods, and applications in the following:

- Steam- and dry-reforming of methane;
- Bi- and tri-reforming of methane;
- Reforming of biogas;
- Support identity effect on reforming;
- Impact of promoters on reforming;
- Laser, plasma, and microwave technology in reforming;
- Photo- and electro-catalysis in reforming;
- Reforming reaction conditions;
- Simulation and modeling for reforming process.





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