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Chemical Looping Combustion, Gasification and Fuel Conversion Technology

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Deadline for manuscript submissions:
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Message from the Guest Editor

Chemical looping is a novel promising technology enabling efficient fuel conversion with CO_2 capture. Chemical looping combustion is a typical example of a technology where oxygen carrier materials are employed to provide gaseous or solid-state oxygen, preventing direct contact between fuel and air. This technology could contribute to higher thermal plant efficiency and inherent CO_2 separation.

The chemical looping technology can be extended to a wide range of applications due to the flexibility of the oxygen carrier materials and redox agents, such as the chemical looping gasification of coal/biomass, chemical looping oxidative coupling of methane, chemical looping reforming of liquid fuels, chemical looping oxidative dehydrogenation, and chemical looping ammonia synthesis. Using chemical looping technologies, various fossil and renewable energies can be efficiently converted to different fuels and chemicals. At present, chemical looping represents a priority of research and one of the most important topics in fuel conversion.

We are pleased to invite you to submit your work to this Special Issue. We look forward to receiving your original research and studies.

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Message from the Editor-in-Chief

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