Special Issue

Chemical Looping CO_2 Capture and In Situ Reforming

Message from the Guest Editors

The chemical looping has the feature of "internal separation of CO_2", which can achieve the distinct advantages of low energy consumption and low pollution conversion of carbon-containing substances. Chemical looping technology originated from the commercial iron–steam hydrogen production in the early 19th century and flourished in the mid-21st century with the clean combustion of fossil fuels and CO2 capture. After years of development, it has been applied in the clean utilization of fossil energy, the production of high-value chemicals, and the resource utilization of waste, among other fields. This Special Issue aims to focus on the technology of CO2 resource capture, utilization and high value-added utilization based on the principle of chemical looping, and provide a platform for extensive academic exchanges and discussions. In this Special Issue, original research articles and reviews are welcome. Research areas may include (but are not limited to) the following:

- The mechanism of CO2 conversion in chemical looping
- Suitable bi-functional materials for CO2 capture and in situ conversion
- Development of a new chemical looping CO2 capture and conversion system and process

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Inorganic chemistry remains a lynchpin of modern chemistry, not only embracing the function and reactivity of combinations of most elements of the periodic table, but also providing a footing for studies of materials, catalysts, drugs, fuels and industrial chemicals. Arguably, the role and reach of inorganics in society have never been as great as today. Adventurous research at the heart and at the extremes of inorganic chemistry is vital to further advances and Inorganics offers authors the opportunity to publish exciting new research in an open access format.

Editor-in-Chief

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