



CO₂ Capture, Utilization and Storage: Catalysts Design

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Message from the Guest Editors

The present Special Issue aims to cover all the aspects related to CO₂ recycling from the use of hybrid metal-free nanostructures (like POSS organic–inorganic hybrid molecules) able to convert CO₂ into cyclic carbonates, to the production of renewable fuels through methanation, reforming reactions, and the photo-catalytic activation of CO₂ over transition metal oxides and perovskites.

For CO₂ conversion reactions, catalyst performance represents a challenge to date. With respect to the selected catalytic reactions, the papers collected in the present Special Issue aim at understanding catalyst properties and possible reaction pathways through a knowledge-driven approach. The insight into the correlation between catalyst formulation, synthesis route parameters, structural features and catalytic performance will provide the opportunity for the fine-tuning of catalysts and ultimately of CO₂ recycling.

