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Advances in Catalysts for Efficient Carbon Capture

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Message from the Guest Editors

The world has a viable pathway to building a global energy sector with net-zero emissions in 2050, but this is narrow and requires an unprecedented transformation of how energy is produced, transported, and used globally. Carbon capture, utilization, and storage (CCUS) are expected to play a significant role in achieving the goal of bringing global energy-related carbon dioxide (CO_2) emissions to net zero by 2050. CCUS can facilitate the transition to net-zero CO_2 emissions by tackling emissions from existing assets, providing a way to address emissions from some of the most challenging sectors, providing a cost-effective pathway to scale up low-carbon hydrogen production rapidly, and allowing for CO_2 removal from the atmosphere through BECCS and DACCS.

This Special Issue on “Advances in Catalysts for Efficient Carbon Capture” is proposed aiming at the exhibition of cutting-edge research and potential application of technology for carbon capture. This Special Issue will focus on basic and applied research and development of technologies for carbon capture with the aid of catalysts.