



Carbon Capture and Storage: A Way for the Future

Guest Editor:

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Message from the Guest Editor

In recent years, direct air capture (DAC) of CO₂ has attracted immense attention. Industrialization has led to a significant rise in CO₂ concentration, which is responsible for global warming and a serious threat to many species in near future. Most CO₂ capture work so far has focused on post-combustion CO₂ capture from large point sources, which is not sufficient to potentially reduce CO₂ emissions in a practically meaningful manner. Direct CO₂ capture from air provides the best solution to considerably reducing CO₂ concentration in air. So far, most studies have focused on loading different amines (mostly polymeric) in high surface area materials (zeolites, silica, and MOF) and testing them for CO₂ uptake capacities. However, there have been very few studies on stability, regenerability, and amine efficiency of these adsorbents, which are a must for any practical application in the near future. Contributions to this Special Issue should report on carbon capture and storage technologies for practical applicability. Research articles, reviews, and short communication are welcome.





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