

## Special Issue

# Carbon Capture and Storage: A Way for the Future

### Message from the Guest Editor

In recent years, direct air capture (DAC) of CO<sub>2</sub> has attracted immense attention. Industrialization has led to a significant rise in CO<sub>2</sub> concentration, which is responsible for global warming and a serious threat to many species in near future. Most CO<sub>2</sub> capture work so far has focused on post-combustion CO<sub>2</sub> capture from large point sources, which is not sufficient to potentially reduce CO<sub>2</sub> emissions in a practically meaningful manner. Direct CO<sub>2</sub> capture from air provides the best solution to considerably reducing CO<sub>2</sub> 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 CO<sub>2</sub> 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.

---

### Guest Editor

Dr. Shailesh Dangwal

School of Chemical Engineering, Oklahoma State University, Stillwater, OK 74078, USA

---

### Deadline for manuscript submissions

closed (15 October 2022)



## Polymers

---

an Open Access Journal  
by MDPI

---

Impact Factor 4.9  
CiteScore 9.7  
Indexed in PubMed



[mdpi.com/si/115659](https://mdpi.com/si/115659)

*Polymers*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[polymers@mdpi.com](mailto:polymers@mdpi.com)

[mdpi.com/journal/  
polymers](https://mdpi.com/journal/polymers)





# Polymers

---

an Open Access Journal  
by MDPI

---

Impact Factor 4.9  
CiteScore 9.7  
Indexed in PubMed



[mdpi.com/journal/  
polymers](https://mdpi.com/journal/polymers)



## About the Journal

### Message from the Editor-in-Chief

Since its foundation in 2009, *Polymers* has developed into an internationally renowned, extremely successful open access journal. The editorial team and the editorial board dedicatedly combine open-access publishing and high-quality rigorous peer reviewing. The performance of the journal has proven this strategy to be well-suited and highly successful. This is reflected in the increasing impact factor of *Polymers*, the most recent one being 4.9.

I would like to invite you to contribute to the success of the journal by sending us your high quality research papers. We would be pleased to welcome you as one of our authors.

---

### Editor-in-Chief

Prof. Dr. Alexander Böker

Fraunhofer-Institut für Angewandte Polymerforschung, Lehrstuhl für Polymermaterialien und Polymertechnologie, Universität Potsdam, Geiselbergstraße 69, 14476 Potsdam-Golm, Germany

---

### Author Benefits

#### Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

#### High Visibility:

indexed within Scopus, SCIE (Web of Science), Ei Compendex, PubMed, PMC, FSTA, CAPlus / SciFinder, Inspec, and other databases.

#### Journal Rank:

JCR - Q1 (Polymer Science) / CiteScore - Q1 (General Chemistry)