



## Novel Sorbent Materials for Efficient Gas Capture and Separation

Guest Editors:

**Dr. Yuandong Yang**

**Dr. Nana Wang**

**Dr. Dawei Wu**

**Dr. Jie Xu**

Deadline for manuscript  
submissions:

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### Message from the Guest Editors

The process of gas capture and separation by using sorbent materials has been investigated and developed for decades; it has been widely applied in many fields including oil and gas engineering as well as the energy, chemical, and pharmaceutical industries, among others. For instance, CO<sub>2</sub> capture and storage based on sorbent cycling has been recognized as one of the most promising negative emissions technologies to mitigate global warming. The sorption technique is also one major solution for the purification of various hazardous gases. Nowadays, the fabrication of novel sorbent materials with superior performance and the in-depth investigation of their sorption mechanisms have become the focus of study.

This Special Issue welcomes original research and reviews focusing on:

- Liquid and solid absorbent materials for gas capture and separation
- Membranes for gas separation
- The design of reactor configurations for gas ad/absorption and separation
- Kinetic modelling, thermodynamic analysis, dynamic simulation, or quantum chemical calculation for gas sorption reactions
- Other applications involving gas capture or separation processes





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### Prof. Dr. Maryam Tabrizian

1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada

2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

## Message from the Editor-in-Chief

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Materials Editorial Office  
MDPI, St. Alban-Anlage 66  
4052 Basel, Switzerland

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