Special Issue

Process of CO_2 Capture and Conversion

Message from the Guest Editors

CO2 capture and conversion represent a more sustainable process that can partially close the carbon cycle. It is attractive to store the excess and uncertain supply of energy from renewable sources to stable chemical energy (i.e., methane, syngas, or liquid chemicals). There are many effective CO2 utilization routes, including thermal catalysis, photocatalysis, electronic catalysis, plasma catalysis, etc. Although considerable progress has been made, more extensive and in-depth research is still needed to achieve industrialization. This Special Issue on "Process of CO2 Capture and Conversion" seeks high-quality reviews and research works that involve CO2 capture and catalytic conversion processes. Topics include, but are not limited to:

- Pre-combustion carbon capture;
- Post-combustion carbon capture;
- Oxy-fuel combustion;
- Direct air capture (DAC);
- Biological carbon capture;
- Chemical looping;
- Calcium looping;
- CO2 hydrogenation;
- Integrated carbon capture and utilization;
- Techno-economic analysis of carbon capture and conversion process;
- Life cycle assessment for carbon capture technologies development.

Guest Editors

Dr. Yongqing Xu

Dr. Shuzhuang Sun

Dr. Xuan Bie

Dr. IWei Wang

Dr. Yuchuan Feng

Deadline for manuscript submissions

closed (30 November 2024)

Processes

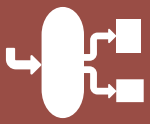
an Open Access Journal by MDPI

Impact Factor 2.8
CiteScore 5.5

mdpi.com/si/175393

Processes
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
processes@mdpi.com

mdpi.com/journal/processes



Processes

an Open Access Journal by MDPI

Impact Factor 2.8
CiteScore 5.5

mdpi.com/journal/processes

About the Journal

Message from the Editor-in-Chief

You are invited to contribute either a research article or a comprehensive review for consideration and publication in *Processes* (ISSN 2227-9717). *Processes* is published in open access format – research articles, reviews, and other content are released on the internet immediately after acceptance. The scientific community and the general public have unlimited, free access to the content. As an open access journal, *Processes* is supported by the authors and their institutes through the payment of article processing charges (APCs) for accepted papers. We would be pleased to welcome you as one of our authors.

Editor-in-Chief

Prof. Dr. Giancarlo Cravotto
Department of Drug Science and Technology, University of Turin, Via P. Giuria 9, 10125 Turin, Italy

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, Inspec, AGRIS, and other databases.

Journal Rank:

JCR - Q2 (Engineering, Chemical) / CiteScore - Q2 (Chemical Engineering (miscellaneous))

MDPI