

Special Issue

Novel Technologies for Carbon Dioxide Sequestration

Message from the Guest Editor

Greenhouse gases pose a significant threat to human societies all over the planet. The burning of fossil fuels has led to an increase in the atmospheric CO₂ concentration of more than 45% relative to the pre-industrial era. In the USA alone, power plant CO₂ releases comprise 55% of total CO₂ emissions. Until a successful transition to renewal energy sources is accomplished, there is an urgent need for CO₂ capture technologies from concentrated sources. There are also many methods that attempt to capture carbon dioxide from air or even the sea. Process intensification is a technique that reduces operating and capital costs by combining chemical reactions and separation operations, thus significantly increasing the efficiency of the process. This Special Issue aims to present novel carbon dioxide sequestration technologies that are technically feasible, cost-effective, and environmental friendly; the scope includes, new technologies and significant improvements on existent processes. Articles discussing concentrated sources and direct carbon capture technologies are welcomed, particularly process intensification processes with the potential to reduce capital and operating costs.

Guest Editor

Prof. Dr. Jorge Gabitto

Chemical Engineering Department, Prairie View A&M University, Prairie View, TX 77446, USA.

Deadline for manuscript submissions

closed (28 February 2022)



Energies

an Open Access Journal
by MDPI

Impact Factor 3.2
CiteScore 7.3



mdpi.com/si/69091

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

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





Energies

an Open Access Journal
by MDPI

Impact Factor 3.2
CiteScore 7.3



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



About the Journal

Message from the Editor-in-Chief

Energies is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

Editor-in-Chief

Prof. Dr. Enrico Sciubba

Department of Mechanical and Industrial Engineering, University
Niccolò Cusano, 00166 Roma, 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, RePEc, Inspec, CAPlus / SciFinder, and other databases.

Journal Rank:

CiteScore - Q1 (Control and Optimization)