



Converting CO₂ into Fuel and Chemicals

Guest Editors:

Dr. Hamidreza Arandiyani

Laboratory of Advanced Catalysis
for Sustainability, School of
Chemistry, The University of
Sydney, Sydney 2006, Australia

Ms. Yuan Wang

Particles and Catalysis Research
Group, School of Chemical
Engineering, The University of
New South Wales, Sydney 2052,
Australia

Deadline for manuscript
submissions:

closed (31 December 2019)

Message from the Guest Editors

The utilization of CO₂ as chemical feedstock has been a focus in generating fuels and chemicals that society urgently demands. Much efforts are aimed at the research of the CO₂ conversion via hydrogenation to various value-added hydrocarbons, such as CH₄, lower olefins, gasoline, or long-chain hydrocarbons catalyzed by different catalysts with various mechanisms. Although many efforts have been made in relation to catalytic CO₂ conversion, effectively activating the thermodynamically-stable CO₂ molecule continues to be an obstacle, as it requires high temperatures and is an energy-intensive process. This will be realized by the development of rational synthesis method, which will allow the smart design of heterogeneous catalysts with high efficiency and long-term stability.

This Special Issue will focus on innovative and novel research in “*Converting CO₂ into Fuel and Chemicals*”. Full papers, communications, perspectives, and mini-reviews are welcomed for inclusion in this Special Issue of *Molecules*.





an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Thomas J. Schmidt

Institute of Pharmaceutical
Biology and Phytochemistry,
University of Münster,
Corrensstrasse 48, D-48149
Münster, Germany

Message from the Editor-in-Chief

As the premier open access journal dedicated to experimental organic chemistry, and now in its 25th year of publication, the papers published in *Molecules* span from classical synthetic methodology to natural product isolation and characterization, as well as physicochemical studies and the applications of these molecules as pharmaceuticals, catalysts and novel materials. Pushing the boundaries of the discipline, we invite papers on multidisciplinary topics bridging biochemistry, biophysics and materials science, as well as timely reviews and topical issues on cutting edge fields in all these areas.

Author Benefits

Open Access: free for readers, with [article processing charges \(APC\)](#) paid by authors or their institutions.

High Visibility: indexed within [Scopus](#), [SCIE \(Web of Science\)](#), [PubMed](#), [MEDLINE](#), [PMC](#), [Reaxys](#), [CaPlus / SciFinder](#), [MarinLit](#), [AGRIS](#), and [other databases](#).

Journal Rank: JCR - Q2 (*Chemistry, Multidisciplinary*) / CiteScore - Q1 (*Chemistry (miscellaneous)*)

Contact Us

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

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/molecules
molecules@mdpi.com
[X@Molecules_MDPI](https://twitter.com/Molecules_MDPI)