

## Special Issue

# CO<sub>2</sub> Capture and/or Its Catalytic Transformation into Fuels or Valuable Chemicals II

### Message from the Guest Editors

The ever-increasing CO<sub>2</sub> concentration in the atmosphere, leading to global warming, is one of the main problems that humankind has to face during the 21st century. To avoid the fact that sooner or later, humanity will directly start to suffer from it, there is an urgent need to reduce this CO<sub>2</sub> level through its capture at the main sources of emissions, such as coal-fired power plants, and even better, to try to sequester it directly from the atmosphere. In addition to CO<sub>2</sub> capture, it is now mandatory to design efficient catalysts to set new processes for its chemical valorization into either fuels (methane, methanol, dimethyl ether) or key building blocks such as olefins, aromatics, epoxides, carbonates, etc. This Special Issue is devoted to presenting the central catalytic role of the aforementioned topics, for example:

- CO<sub>2</sub> capture, separation, and post-treatment to its sequential uses;
- CO<sub>2</sub> platform-based chemistry (CO<sub>2</sub> used as a reactant);
- Uses of CO<sub>2</sub> integrated into processes to afford green products such as formic acid, CO, methanol, methane, cyclic carbonates, and hydrogen;
- Reduction in gas emissions related to CO<sub>2</sub> mitigation processes (NO<sub>x</sub> and SO<sub>x</sub>).

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### Guest Editors

Dr. Benoît Louis

Prof. Dr. Marcelo Maciel Pereira

Dr. Qianwen Zheng

Dr. Nicholas Musyoka

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### Deadline for manuscript submissions

closed (31 August 2023)



## Catalysts

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

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Prof. Dr. Keith Hohn  
Carl R. Ice College of Engineering, Kansas State University, Manhattan,  
KS, USA

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