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# Heterogeneous Catalysts for CO<sub>2</sub> Valorisation

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### Message from the Guest Editors

Today, several processes for CO<sub>2</sub> valorization are available or under development, including the CO<sub>2</sub> splitting to CO and O<sub>2</sub>; the hydrogenation of CO<sub>2</sub> to methane or to liquid hydrocarbons, to store energy excess from industrial wastes and/or nonprogrammable renewable sources in well-designed gas infrastructure; the reaction of CO2 with CH4, called dry reforming; and the high temperature coelectrolysis of CO<sub>2</sub> with H<sub>2</sub>O or the artificial photosynthesis. However, the CO<sub>2</sub> molecule is thermodynamically stable, and its activation requires the use of suitable heterogeneous catalysts and alternative sustainable processes. In this regard, there is a continuous effort to improve the performances of the catalysts and their durability through the study of all the fundamental aspects involved in the catalytic process.

This Special Issue covers the design, preparation, and characterization of novel heterogeneous catalysts, as well as new, advanced, and sustainable technologies, for CO<sub>2</sub> valorization.









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### Message from the Editor-in-Chief

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