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# $CO_2$ Capture and / or Its Transformation into Fuels or Valuable Chemicals

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## Message from the Guest Editors

The ever-increasing $CO_2$ 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 $CO_2$ level by its capture at the main sources of emissions, such as coal-fired power plants, and even better, to try to sequestrate it directly from the atmosphere. In addition to $CO_2$ capture, it is now mandatory to design efficient catalysts, in order to set new processes for its chemical valorization into either fuels (methane, methanol, dimethylether) or key building blocks like olefins, aromatics, epoxides, carbonates, etc.

This Special Issue is devoted to presenting the central catalytic role into the aforementioned topics, for example: CO2 capture; CO2 platform chemistry based on CO2 as a reactant: To produce as a formic acid, CO, methanol and methane, cyclic carbonates, etc. Reduction of gas emissions related to CO2 mitigation processes (NOx and SOx).