Special Issue

Decarbonisation: From Fossil to Renewable Fuels Through Power to X

Message from the Guest Editor

The increase in global temperatures, due to greenhouse gas emissions, has prompted many countries to set targets to reach net-zero greenhouse gas emissions by 2050. Among greenhouse gases, CO2 and CH4 play a crucial role; the combustion of fossil fuels to produce energy and the use of internal combustion engine vehicles are the main causes of CO2 emissions. To reach the target, emissions into the atmosphere must be balanced by an equivalent amount removed from the atmosphere. Electricity can be obtained from renewable sources such as wind or solar energy; however, the intrinsic discontinuity of these sources and especially the low share of electricity in current global energy consumption suggest the need for other energy carriers to store energy and act as fuel for non-electrifiable processes. In this Special Issue, we welcome original research papers, reviews and short communications, focusing on the production processes and decomposition of renewable fuels and energy carriers such as hydrogen, ammonia, methanol, bio-oil, bio-gas and on on, with special attention to the catalytic systems involved.

Guest Editor

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Message from the Editor-in-Chief

As a new international and multidisciplinary peer-reviewed open access journal for multidisciplinary chemistry focused on chemical compounds, Compounds (ISSN 2673-6918) has been founded to publish reviews, original research papers, communications, case reports, letters, and short notes. Our goal is for Compounds to become a journal where the scientific community can present their results under open access. Our core objective is to provide high-quality research contributions in a wide range of chemistry areas. Manuscripts dealing with chemical compounds; the relationship between structure, properties, and/or functions of all kinds of compounds; as well as chemical theory and applications are welcome.

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