



Alternative Fuels in Future Energy System

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Message from the Guest Editor

Dear Colleagues,

Progressive climate changes caused, among others, by emissions of carbon dioxide and by the drastically decreasing resources of fossil fuels make it necessary to look for other, renewable energy sources, including alternative fuels and environmentally friendly methods of their use. Technologies for the production of advanced alternative fuels are at research stages with various levels of their development and haven't found widespread industrial use yet. Therefore, it is important to conduct research and publish their results in terms of the possibility of waste-free use of waste materials, including industrial ones (in BtL and WtL processes). In terms of searching for universal energy carriers, there are two views. One of which concerns the recognition of hydrogen as such a carrier, and the other – the treatment of synthesis gas as such a carrier. For this reason, it is important to research on the development of technologies for obtaining hydrogen from various sources with the limitation of energy-consuming water electrolysis processes as well as limiting the use of water as a scarce resource.

Prof. Dr. Krzysztof Biernat
Guest Editor





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