Special Issue

Chemical and Biochemical Processes for Utilization of Renewable Energy Sources

Message from the Guest Editor

This Special Issue considers various approaches and technologies for a circular economy either by renewable energy production or recycling waste (household or industrial) for the needs of energy demand. Such technologies are biofuel production (biogas, bioethanol, biodiesel, and higher alcohols), hydrogen energy, fuel cell applications with various reductors serving as fuel, and waste recycling to obtain energy sources—pyrolysis to produce synthesis gas, as well as carbon dioxide recycling to obtain fuels (carbon monoxide, methanol, and methane) and chemicals. The chemical methods involved in these energy productions are catalysis and electrochemistry, being compatible and complementary as technology and a final goal. Energy storage in batteries, or as hydrogen in adsorbents, is also a topic in this Issue. Biofuels are produced by biotechnologies, mainly being used as feedstock for other chemical applications, besides being directly used as fuels. Articles for advanced botechnologies in this field are welcome. Integrated technologies for energy production and waste recycling for energy and secondary feedstocks are welcome too.

Guest Editor

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Message from the Editor-in-Chief

Energies is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

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