

Special Issue

Algal Biorefinery and Microbial Fuel Cells

Message from the Guest Editor

Fossil resource depletion and problems related to global warming are driving the demands for renewable and environmentally friendly fuels and chemicals in our society. Recently, photosynthetic microalgae- and electroactive bacteria-based biorefinery technologies have attracted great attention in both academic and industrial fields. Microalgal biomass can be applied to a variety of industrial applications such as bioenergy, animal/aquaculture feeds, food supplements, and nutraceuticals. In microbial fuel cells (MFCs), electricity and value-added products (such as ethanol and 3-hydroxyproionic acid) can be simultaneously produced from organic substrates. In addition, renewable electricity can be used to provide a reducing equivalent that is essential for the metabolism of diverse microorganisms to produce alcohols and organic acids. This Special Issue covers recent achievements in microalgae and biofuel cell technologies, including biocatalysts, reactors, process optimization, power generation, bio-products diversification, and upscaling.

Guest Editor

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Deadline for manuscript submissions

closed (31 August 2020)



Applied Sciences

an Open Access Journal
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Impact Factor 2.5
CiteScore 5.5



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