Special Issue

Sustainable Waste Utilisation and Biomass Energy Production

Message from the Guest Editor

Biomass and waste treatment technologies involve thermal (gasification, pyrolysis, and torrefaction), biological (anaerobic digestion, and fermentation), mechanical, or chemical processes through which biomass is converted into biogases (e.g. methane, bio-hydrogen) or biofuels (e.g. ethanol). Gaps exist in the scaling-up of innovative technologies such as two-stage anaerobic digestion for the production of bio-hydrogen and methane. This Special Issue explores drivers and barriers, as well as decision support tools, in the development of waste biorefineries for the sustainable insertion and localisation of waste and biomass to energy technologies. In this Special Issue, research areas may include (but are not limited to) the following:

- The suitability of feedstocks for biogas and biohydrogen production in waste biorefineries;
- Innovation and technology advancement in waste/biomass to energy technologies;
- Waste-to-energy technology portfolios that can achieve carbon neutrality;
- Barriers and drivers in the development of waste-to-energy roadmaps;
- Bio-hydrogen production from organic waste/biomass 2S-AD;
- Waste-to-energy systems as part of the circular economy.

Guest Editor

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Message from the Editor-in-Chief

I encourage you to contribute a research or comprehensive review article for consideration for publication in *Sustainability*, an international Open Access journal which provides an advanced forum for research findings in areas related to sustainability and sustainable development. *Sustainability* publishes original research articles, review articles and communications. I am confident you will find the journal contributes to enhancing understanding of sustainability and fostering initiatives and applications of sustainability-based measures and activities.

Editor-in-Chief

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