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Intensified Conversion of Organic Waste into Biogas

Guest Editor:

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Deadline for manuscript submissions:
closed (20 October 2021)

Message from the Guest Editor

Methane is a renewable energy source that can be produced in controlled bioengineered systems from a wide range of organic substrates. However, anaerobic digestion and, in particular, methanogenesis, has always been seen as a slow process.

Recent advances in the field have shown that the addition of conductive materials to anaerobic digestion processes can improve methane production rates, reduce lag phases, apply higher organic loading rates, and contribute toward a more stable operation of the systems. Further, the performance of anaerobic digesters can be improved with bioelectrochemical systems by applying a fixed potential. These systems are able to reduce carbon dioxide to methane via direct and/or indirect extracellular electron transfer.

Therefore, the main goal of the present Special Issue is to contribute to the expansion of knowledge in this field, both promoting research focused on the use of conductive materials and/or bioelectrochemical systems in anaerobic systems, and to report the interactions between these systems and the involved microbial communities.

Dr. Gilberto Martins
Guest Editor

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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