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Waste Plastics into Fuel, Energy and Chemicals

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Deadline for manuscript submissions:
closed (15 November 2019)

Message from the Guest Editors

Plastic waste is present in solid urban waste in large quantities, and mechanical separation prior to recycling is necessary to manage these materials. However, the difficulties deriving from organic contamination, inadequate sorting before recycling which involves mixing of different polymers in the collected flows, presence of hazardous materials, presence of plastic composites difficult to recycle and reuse, and the high energy requirements often associated with wasted handling and processing, hamper a complete recycling process for many plastic flows.

Thermochemical conversion generates gaseous, liquid, and solid fractions, and can be driven to maximize some of these streams. Gas that is rich in hydrocarbons, and liquids can be used as fuels as a raw stream or upgraded through catalytic upgrading, or as a source for the production of valuable chemicals. The solid char may be employed as a filler to obtain composites, as an active carbon, or as a solid fuel.

We warmly invite you to submit your latest studies or research works concerning thermal and/or catalytic conversion processes of plastic waste aimed at obtaining fuels, energy, or chemicals of industrial interest.

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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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