Special Issue

Environmental Engineering of Biopolymers from Renewable Resources

Message from the Guest Editor

Biodegradable and bio-based plastics production brings a considerable reduction in our dependency on fossil fuels. Hence, the utilization of renewable resources as feedstock for a particular class of biopolymers (e.g., polyhydroxyalkanoates; PHA) can increase the environmental sustainability of the bioprocesses. PHA are the ideal candidate to replace part of the market which is still dominated by fossil fuels plastics. The scope of this Special Issue is to give emphasis on renewable feedstock utilization by mixed or pure microbial cultures, as election substrates for PHA synthesis. Particular importance will be dedicated to those aspects related to process optimization, as well as possible integration of PHA production. The aspect related to biorefinery development is extremely relevant because of the need to introduce concepts like the technical or economic feasibility of the process. Given these considerations, downstream processing for the development of innovative and environmentally sustainable protocols for PHA extraction/recovery from microbial cells will also be taken into account.

Guest Editor

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