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Residual Resource Recovery for Bioenergy and Biomolecule Production in a Circular Economy: Sustainable Process Design and Technoeconomic Feasibility

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Message from the Guest Editors

Dear Colleagues,

The main aim of this Special Issue is to reveal efficient and sustainable approaches to developing the next generation of bioenergy, biochemical, and biorefinery systems.

The scientific areas to be covered in this Special Issues may include, but are not limited to:

- Novel biomass pretreatment methods;
- Bioenergy production including gaseous (biogas, biomethane, etc.), liquid (e.g., methanol) and solid products (e.g., refuse-derived fuel);
- Biomolecule production from residual resources;
- Novel downstream process design;
- Soil amendment with digestate;
- Nutrient removal and recovery;
- Deciphering microbial communities in bioprocesses including the fate of contaminants (pathogens, antibiotic-resistant bacteria, etc.);
- The biodegradation of microplastics;
- The mathematical modeling, optimization, and control of bioprocesses;
- The sustainability evaluation of biotechnological processes;
- The ecoefficiency assessment of biomass conversion processes.



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Special Issue



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Message from the Editor-in-Chief

Energies is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

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