

## Special Issue

# Energy Recovery in Wastewater Treatment: Methods and Applications

### Message from the Guest Editors

This Special Issue seeks contributions that showcase wastewater treatment approaches that integrate energy resource recovery to promote circularity, reduce dependence on energy from the grid by treatment plants, and ensure that plants are net energy producers where possible. Research should focus on laboratory, pilot, and field-scale studies, highlighting innovative techniques and techno-economic assessments for full-scale implementation. Potential technologies for exploration include the following:

- **Anaerobic digestion:** harnessing the microbial breakdown of organic matter to produce biogas, which can be converted into electricity, heat, or transportation fuel.
- **Membrane bioreactors:** utilizing membranes to separate solids and organics from wastewater, enabling efficient nutrient recovery and energy generation through subsequent processes.
- **Hybrid systems:** combining multiple technologies to optimize energy recovery and resource utilization, such as integrating anaerobic digestion with membrane filtration or electrochemical treatment.

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### Guest Editors

Dr. John Kabuba

Prof. Dr. Peter Ogbemudia Osifo

Dr. Benton Otieno

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### Deadline for manuscript submissions

closed (20 May 2025)



## Applied Sciences

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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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### Editor-in-Chief

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