Special Issue

Valorization of E-Waste: Innovation and Sustainable Chemistry for a Circular Economy

Message from the Guest Editor

This Special Issue explores innovative approaches to e-waste valorization, focusing on material recovery, sustainable chemistry and circular economy integration. In particular, the transformation of e-waste into value-added products such as heterogeneous catalysts holds immense promise for advancing green chemistry and sustainable industrial processes. We invite original research and reviews on topics such as the following:

- Advanced recycling methods for metals, polymers, and catalysts from e-waste.
- Development of heterogeneous catalysts derived from e-waste materials, including precious metals and transition metals.
- Green and scalable recovery technologies, including bioleaching and eco-friendly processes.
- Applications of e-waste-derived catalysts in energy production, environmental remediation and chemical synthesis.
- Lifecycle analyses and economic assessments of ewaste valorization.
- Strategies for integrating e-waste into circular economy frameworks.

By transforming e-waste into a key resource, this Issue aims to promote technological innovation, address resource scarcity, and advance global sustainability.

Guest Editor

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About the Journal

Message from the Editor-in-Chief

There are many issues facing society, such as energy/food/water security, plastic pollution, antibiotic resistance, global warming. To solve these (and other issues), scientists and engineers need to work together to tackle these imminent dangers. The field of Green (or Sustainable) Chemistry has been transformed in the last 30 years since Paul T. Anastas and John C. Warner pioneered the now famous "12 Principles of Green Chemistry". The journal, Sustainable Chemistry (published by MDPI), aims to be one of the go-to journals in the area, publishing cutting-edge research in the area more broadly. The open access model allows our work to reach a broad base of readers from all corners of the world.

Editor-in-Chief

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