



Next-Generation Biomass Gasification and Resource Recovery: Driving Sustainability and Circularity

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Message from the Guest Editors

This Special Issue will center on advancing biomass gasification technologies and resource recovery strategies to enhance efficiency, scalability, and environmental sustainability. It will emphasize the integration of these technologies into circular economy frameworks to minimize waste, reduce carbon emissions, and promote sustainable resource use.

The scope of this Special Issue encompasses a wide range of topics related to biomass gasification and resource recovery, including, but not limited to, the following:

- Advanced biomass gasification techniques and technologies;
- Process optimization and integration for improved efficiency and sustainability;
- Life cycle assessment and environmental impact analysis in biomass gasification systems;
- Policy and regulatory frameworks supporting biomass gasification and resource recovery;
- Economic analysis and market potential of next-generation biomass gasification technologies;
- Case studies and pilot projects demonstrating practical applications and outcomes;
- Synergies between biomass gasification and other renewable energy systems.





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