Special Issue

Advances in Gas–Solid Separation for Solid Waste Recovery

Message from the Guest Editor

This Special Issue aims to gather cutting-edge research and practical applications of gas–solid separation in solid waste recovery, covering fundamental theories, material development, process optimization, equipment innovation, and life-cycle analysis. We welcome original research articles, reviews, and case studies, with a focus on (but not limited to) the following topics:

- Novel Gas–Solid Separation Materials and Equipment: Design and optimization of high-efficiency dust collectors, cyclone separators, electrostatic sorting technologies, etc.
- Separation Mechanisms for Complex Waste Systems: Separation dynamics and mathematical modeling of wet, multi-component, or fine-particle waste streams.
- Low-Carbon and Intelligent Technologies: Energy-efficient processes, AI-driven separation system control, and digital monitoring.
- Secondary Pollution Control: Co-removal technologies for dust, heavy metals, or VOCs during separation.
- Engineering Applications and Interdisciplinary Integration: Industrial-scale case studies, economic analyses, and coupling with thermochemical conversion (e.g., pyrolysis/gasification).

Guest Editor

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Deadline for manuscript submissions

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Message from the Editor-in-Chief

Separations offers the scientific community a high-quality, open-access journal option with rapid time-to-publication without any sacrifice of a rigorous peer-review process. We invite contributions ranging from fundamental characterization and instrumentation development through application of techniques to shed light on a broad spectrum of separation science needs. Since inception, *Separations*, has become unique in its combination of rapid publication and thorough scientific content. We invite you to consider us for your next contribution.

Editor-in-Chief

Prof. Dr. Frank L. Dorman
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