Special Issue

Efficient Extraction, Separation and Purification of Critical Metal Resources

Message from the Guest Editors

Critical metals—including rare earth elements, dispersed (or scattered) metals, and precious rare metals—are indispensable to strategic emerging industries such as new energy and electronics. However, these resources are subject to considerable supply risks and therefore demand heightened attention and protection. Advancing technologies in mineral processing, green extraction, efficient separation, and high-purity preparation of critical metals are vital to improving resource utilization efficiency. These innovations are key to meeting the stringent requirements of high-end applications, including next-generation energy systems and national defense, while ensuring long-term sustainability. In the context of global carbon reduction goals, the development of green, efficient, and environmentally friendly processing technologies has become a research priority in this field. We cordially invite you to submit your original research articles, communications, or reviews to this Special Issue, which focuses on the efficient extraction, separation, and purification of critical metal resources.

Guest Editors

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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

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