



Advancements in Phytomining of Hyperaccumulators for Nickel and Rare Earth Elements Conservation

Guest Editor:

Dr. Ario Fahimi

1. Department of Mining and Metallurgical Engineering, Mackay School of Earth Sciences and Engineering, University of Nevada, Reno, NV 89557, USA
2. Aleon Renewable Metals, 302 Midway Road Freeport, Freeport, TX 77542-2290, USA

Deadline for manuscript submissions:

30 June 2025

Message from the Guest Editor

The extraction and recycling of critical materials, such as nickel (Ni) and rare earth elements (REEs), have become increasingly vital due to their widespread use in various industries and technologies. As these materials face supply chain disruptions and environmental concerns associated with conventional extraction methods, there is a growing need for sustainable alternatives. Phytomining, particularly the use of hyperaccumulator plants, presents a promising approach to recover Ni and REEs from low-grade ores and contaminated soils. This Special Issue aims to explore the potential of phytomining technologies and their implications for conservation efforts.

The purpose of this Special Issue is to provide a platform for researchers to disseminate their findings on the phytomining of hyperaccumulators for Ni and REEs. By focusing on this emerging research area, we aim to advance scientific understanding and promote sustainable practices in critical materials recycling. The subject matter aligns with the scope of Conservation, as it addresses the interdisciplinary dimensions of conservation, including ecological, economic, and social aspects.

