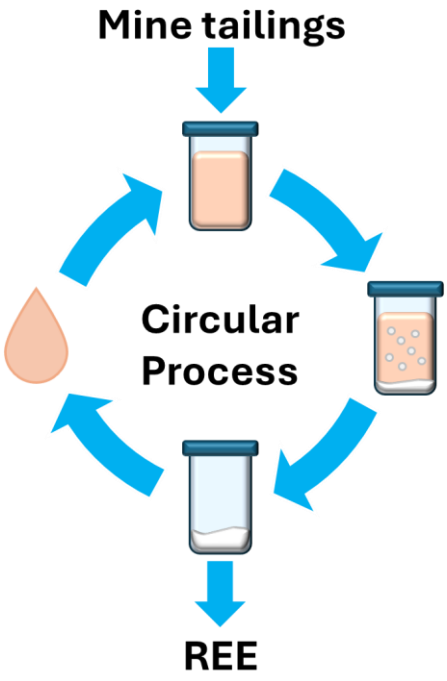
Rare Earth Recovery and Separation from mine tailings

REACT

Our novel rare earth element (REE) recovery method enables the production of high-purity REEs from mine tailings – delivering a true "waste to value" solution. Using advanced metal-separation chemistry, the process selectively recovers REEs from tailings through a fast, targeted, fully recyclable, and circular approach.

APPROACH

Mine tailings are dissolved into a proprietary solvent/additive system, resulting in fast separation of the REE of interest. Both the proprietary solvent and the additive can be easily recovered and recycled and re-introduced into the circular system for future separations.



Targeted REEs:
Cerium, Europium, Lanthanum, Terbium, Yttrium, Neodymium, Dysprosium

BENEFITS

- Produces high-purity individual REEs - high recovery
- Works on low-grade, mixed, or oxidized material
- Reagents are recyclable
- The process integrates into existing flowsheets
- Improved ESG scores

LOOKING FOR

- An industry R&D collaboration partner
- An industry partner to bring this technology to the market

Contact ✉
csimms@ed.ac.uk
react@gla.ac.uk

THE UNIVERSITY of EDINBURGH

UK Research and Innovation