

Hydrometallurgy Lab



Leaching studies

with a full equipment range of Glass, Monel, Hastelloy, Stainless-steel vessels

Continuous Leach Circuit

housing up to eight Continuous Stirred Tank Reactors (CSTR) on each side of the leaching skid



Key Features & Capabilities

- Batch and semi-continuous hydrometallurgical extraction tests, tailored to any raw and recycled material
- In lab-scale and pilot scale capacity, *e.g.*, Continuous Leach Circuit
- HSC and METSIM process modelling
- Leaching studies, covering alkaline leaching, acid leaching, pressure leaching, oxidative and reductive leaching with gases, microwave-assisted leaching, etc.
- Solution purification utilising staged precipitation, ion exchange and solvent extraction separation
- Crystallisation, including anti-solvent crystallisation
- Radiation licensed laboratory for metallurgical testworks involving uranium, rare earths, etc.



Key Applications

- Process and flowsheet development
- Laboratory and pilot scale trials
- Kinetic and thermodynamic studies
- Process optimisation and by-products recovery
- Variability studies



Past Sponsors --- Lithium Australia, Venus Metals Corporation, MRIWA, Arcadium Lithium, King River Resources, Podium Minerals, Impact Minerals, LKAB (Sweden), FBI CRC



Contacts

- **Lead:** Dr. Rorie Gilligan
- **Contact:** Prof. Aleksandar Nikoloski
a.nikoloski@murdoch.edu.au

