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SYDNEY



## Battery Precursor Materials from Industrial and Mining Waste Streams

**Industrial and mining wastes are literally ‘treasure troves’ of valuable elements like cobalt, nickel, vanadium, lithium and zinc, which are critical for next generation, high-efficiency batteries and energy storage systems.**

### Competitive advantage

- Critical elements can be selectively extracted via world-class leaching and complexation techniques
- Expertise in the synthesis of magnetic electrochemically reactive ‘carrier’ materials for selective and easy recovery of extracted critical elements
- Ability to regenerate ‘carrier’ materials to create an environmentally friendly and sustainable process

### Impact

- Adding value to waste streams through the recovery of critical elements is good for the economy, society and environment
- More economical and sustainable management of industrial and mining waste streams

### Successful applications

- Recovery of gold, copper, lead and zinc from electronic wastes and mine-impacted soils via galvanic interactions.

### Capabilities and facilities

- Extensive laboratory facilities for extraction, recovery and electrochemical-based studies
- Expertise and analysis facilities for studying surface deposition mechanisms, complexation and redox reactions and solid-liquid interfacial interactions

### More Information

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