

Microwave Technology Delivers Over 90% Leach Efficiencies for Nd and Pr Rare Earths

Highlights

- Stage 1 activities continue to progress with the research team at School of Chemistry, University of Melbourne (UoM) for REE extraction using innovative Microwave technology
- Testwork demonstrates leach efficiencies consistently exceeding 90% for Neodymium (Nd) and Praseodymium (Pr) with strong repeatability on larger sample masses
- Rare earth market sentiment remains supported by recent Chinese export restrictions, including curbs affecting Japan, which have heightened global supply concerns¹
- Process condition optimisation testing completed, focusing on solid/liquid ratio, leaching solution concentration, and iron (Fe) separation as part of Stage 1 activities with improvements identified which could improve recoveries
- Remaining Stage 1 activities will focus on microwave parameter optimisation and Fe removal, with further testwork scheduled for completion by end of February 2026

Livium Ltd (ASX: LIT) ("Livium" or the "Company") is pleased to provide an update on activities related to the University of Melbourne ("UoM") microwave-assisted rare earth element (**REE**) extraction technology. Stage 1 activities continue to progress with optimisation experiments delivering highly encouraging results, achieving >90% leach efficiencies for Neodymium (Nd) and Praseodymium (Pr). These interim test results, which build on prior UoM testwork and were derived from larger sample sizes, have confirmed the potential for selective leaching using the technology, identified improvements to Fe separation, and demonstrated strong reproducibility.

Further Stage 1 activities will refine microwave parameters and optimise iron (Fe) removal trials, with all experimental work targeted to conclude by the end of February 2026. Preliminary data and the technical feasibility report from Stage 1 activities will inform Stage 2 prototype development, and support securing of an Australia Economic Accelerator (AEA) grant which, together with Livium's contribution, will fully fund Stage 2 activities.

Livium CEO and Managing Director, Simon Linge commented "Advancement of Stage 1 underpins our strategy to explore the use of microwave technology in the sustainable recovery of rare earths from infrastructure used in clean energy in Australia. Early lab results are highly encouraging, particularly as we move to larger sample scales, with recoveries above 90% for important REE's Nd and Pr. We look forward to working closely with the University of Melbourne as we finalise Stage 1 activities and commence prototype development under the AEA program."

Global Rights to University of Melbourne Microwave Technology

Livium previously executed a binding IP License Agreement and a Research Project Agreement with UoM (collectively "**Agreements**")². The IP Licence Agreement grants Livium exclusive worldwide rights to commercialise UoM's microwave technology for the extraction of REE for 20 years, whilst the Research Project Agreement governs Stage 1 activities.

The objective of Stage 1 is to generate preliminary data and a technical feasibility report, and secure grant funding which, together with the amounts to be contributed by Livium, is sufficient to fully fund Stage 2. Stage 2 activities include UoM overseeing the design and construction of a Prototype Scale Microwave Reactor, followed by completion of REE extraction testing from this scaled plant. Stage 2 will generate the first REE product test results from the prototype plant, providing the data needed to validate commercial feasibility and inform subsequent engineering development.

¹ Source: "China curbs rare earth exports to Japanese companies after dual-use ban, WSJ reports", Reuters (9 January 2026).

² Refer announcement "Livium Secures Exclusive Global Rights to University of Melbourne Microwave Technology for Rare Earth Elements Extraction", dated 17 November 2025.

Stage 3 activities transition the technology into commercialisation, led by Livium. Initially, Livium plans to design and construct a pilot plant, with subsequent production generating the first commercial sale of product under the license.

Authorised for release by the Managing Director and CEO.

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About Livium

Livium Ltd (ASX: LIT) is Australia's leading battery recycler through its wholly owned subsidiary Envirostream — a profitable business focused on the recovery of valuable materials from end-of-life batteries.

Building on this foundation, Livium is expanding into adjacent opportunities including recycling of rare earth elements and solar panels, and the processing of black mass — strengthening Australia's clean-energy supply chain.

The Company also holds a portfolio of complementary technologies, including LieNA®, a patented lithium extraction process in joint venture with Mineral Resources Ltd (ASX: MIN), and VSPC, a developer of next-generation lithium ferro phosphate (LFP) cathode materials — the leading global battery chemistry.

Forward-looking statements

This announcement contains forward-looking statements. Forward-looking statements are subject to a variety of risks and uncertainties that it is beyond the Company's ability to control or predict and which could cause actual events or results to differ materially from those anticipated in such forward-looking statements. Investors should be aware that past performance should not be relied upon as being indicative of future performance.