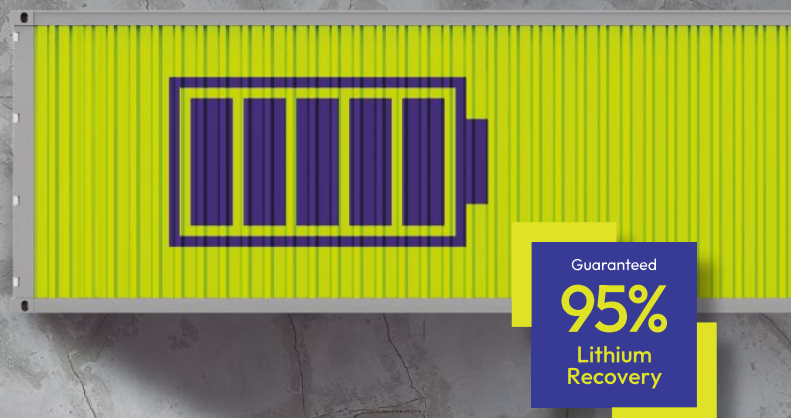


Meet EC² the world's most efficient, battery-grade lithium production process



The industry's first and only all-in-one, fully integrated solution

EC² is engineered to EXTRACT, CONCENTRATE, and CONVERT battery-grade lithium.

alkaLi offers the world's most efficient solution to produce lithium and meet the rapidly growing trends in clean energy—led by the demand for EVs, energy storage, and portable devices.



Meeting the needs of producers

EC² is designed to be highly modular, with a balanced system that can be adapted to a broad range of source inputs, enabling it to meet the industry's evolving demands.

EC² is available to brine-based producers, including geothermal and salar, in an easily deployable, fully containerized solution optimized for lithium production from a wide range of sources and concentration levels, including extreme locations.

alkaLi will introduce systems optimized to produce battery-grade lithium from evaporation ponds and battery recycling sources in late 2025—rapidly accelerating global lithium production.

The advantages of alkaLi EC²

World's most effective DLE

Delivering industry-leading Generation II lithium concentrations

Fully integrated, balanced system

All-in-one engineering optimized for highly varied input conditions

Instantaneous production

With battery-grade output measured in seconds, not years

Zero CAPEX

Option for alkaLi to build, own, and operate the complete system

50% lower OPEX

Using CFRO membrane technology versus conventional thermal systems

Supercharged with SmartOps AI

For immediate savings in efficiency and operating cost

Industry-leading sustainability

With significantly reduced carbon and water footprints

Faster, easier permitting

The output water is compliant with regulation and ready for re-injection

Deploys to extreme locations

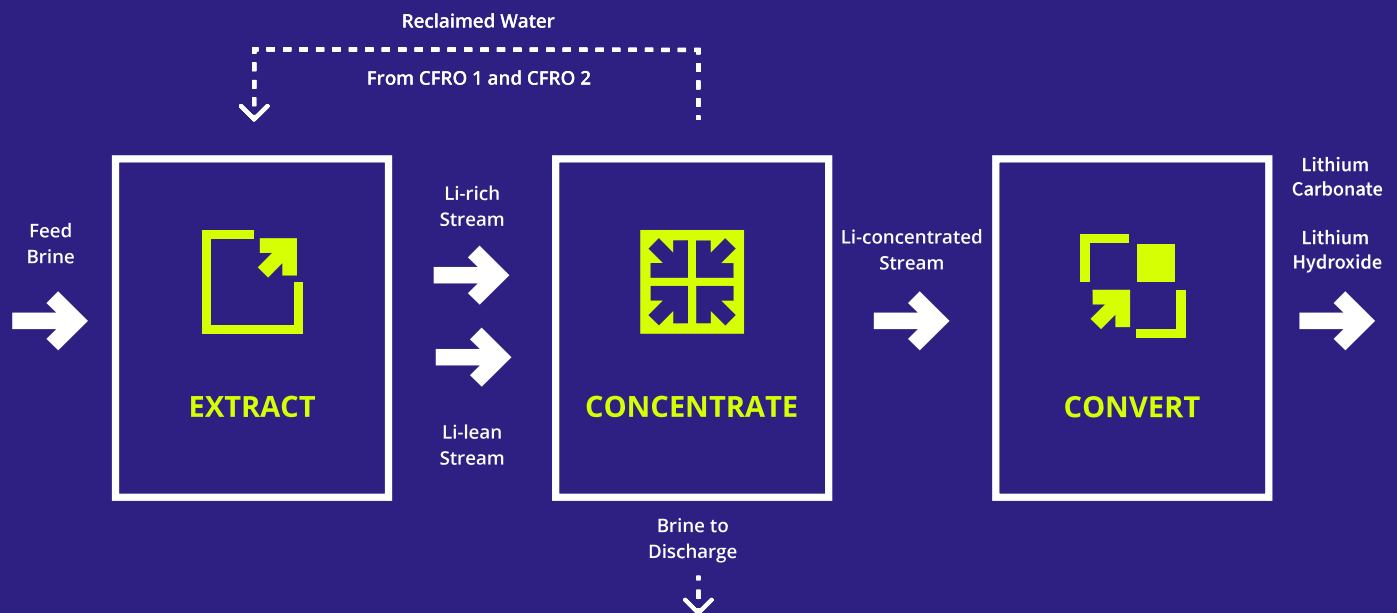
Arrives ready for rapid start-up in a fully containerized format



EC² is Gradiant-Grade Innovation at its best

Built on proven technologies with material science expertise from the Gradiant Labs, EC² is a balanced three-stage system adaptable to a broad range of sources—including geothermal brine, evaporation ponds and recycling. Each stage has been thoroughly tested through bench and field trials, with a successful commercial proving in partnership with a confidential client at their Nevada site. To satisfy the exacting requirements of lithium producers, the EC² solution can be deployed in full or as standalone stages, integrated with existing site infrastructure.

Discover our technologies



EXTRACT

Synthesized resins and novel membranes optimize lithium extraction far beyond industry norms, uniquely reaching Generation II levels and the richest lithium stream possible for maximum downstream efficiency.

A second Li-lean stream is output, and each flows to CFRO units in the Concentrate Stage.

CONCENTRATE

Powered by CFRO to maximize system efficiency, consuming an order of magnitude less energy than thermal processes.

CFRO I receives the Li-rich stream and further refine to levels sufficient to convert to battery-grade to flow to the Convert Stage.

CFRO II receives the Li-lean stream and reduces TDS to below regulatory limits, allowing expedited permitting and discharge ready water.

CONVERT

The highly concentrated lithium flows from CFRO I and is precipitated into a solid using chemical or electro-chemical processes to produce battery-grade lithium carbonate or lithium hydroxide output.



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