

Gradiant introduces



powered by EC²

The World's Most Efficient, Battery-Grade Lithium Production Process

alkaLi is a standalone company, spun out from Gradiant, dedicated to accelerating the scaling of battery-grade lithium production.

Powered by EC², the industry's first and only all-in-one, fully integrated solution, 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 electrification—led by the demand for EVs, energy storage, and portable devices.



Meeting the needs of producers

Gradiant has designed EC² 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.

alkaLi will offer the technology 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, even in extreme locations.

alkaLi will also deploy systems optimized to produce battery-grade lithium from evaporation ponds and battery recycling sources—rapidly accelerating global lithium production.

This groundbreaking technology offers producers compelling benefits:

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

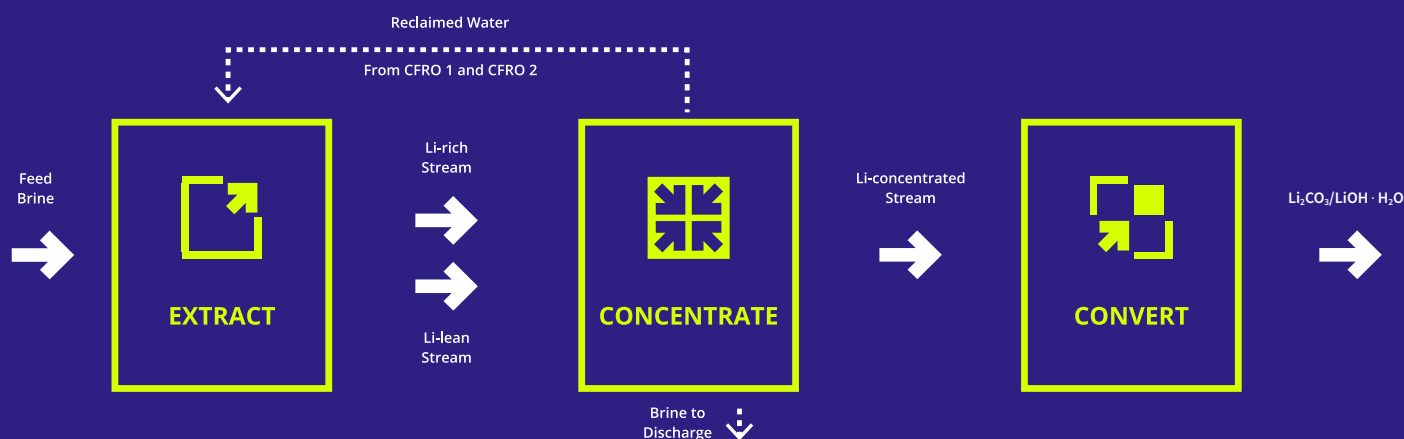
Deploys to extreme locations

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.



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 Concentration Stage.

CONCENTRATE

Powered by Gradiant's award-winning CFRO to maximize system efficiency, consuming an order of magnitude less energy than thermal processes.

CFRO I receives the Li-rich stream and further concentrates 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 Li_2CO_3 or $\text{LiOH} \cdot \text{H}_2\text{O}$ output.

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