

Summary Slide

Co-Founders, Management:

Co-Founder & CEO – Daniel T. Sun

Co-Founder & CTO – Dana Hernandez

Headquarters: Berkeley, CA

Year Founded: 2020

Number of Employees: 5

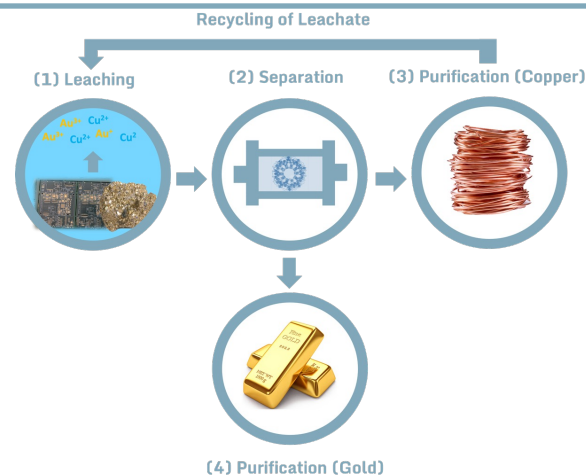
Funding Stage: Pre-revenue Start up

Industry: Metal Separations

Use of Funds: Construction & optimization of Mini Pilot to process 0.2 metric tons of electronic waste

Technology Summary: The recovery of gold and copper from industrial circuit board waste is conducted in a four-step process using Sunchem's combined leaching and Nano Filter technologies. In the first step, we utilize a sustainable leaching formulation to selectively leach out copper and gold from e-waste. For step 2, that leachate solution is pumped through our proprietary Nano Filter to selectively trap gold. The leachate is transferred to an electrolytic cell to deposit the copper onto a metallic electrode in step 3. For step 4, the gold is purified from the Nano Filter.

Description of the Technology's Impact: For high-value markets such as energy, and critical metals, Sunchem's technology will revolutionize how critical metals are sourced and purified while protecting downstream communities from toxic water pollution and instilling energy equity approaches at an early stage.



Process flow including e-waste digestion, Nano Filter processing, purification of the copper from the effluent, and purification of gold from the Nano Filter.

Proposed Project Objectives/Goals: Sunchem's goal is to develop a cost-effective, feedstock agnostic process to recover and purify 95-100 % of the copper and gold locked up in electronic waste, scrap, and other post-consumer products.

The main objectives are 1) demonstrating the purification of copper and gold from electronic waste, scrap and/or other post-consumer products using Sunchem's combined leaching formulation and Nano Filter technology in a Mini Pilot advancing the technology to TRL 5 and 2) complete a life-cycle assessment (LCA) and techno-economic analysis (TEA) for the overall process followed by the construction of a MicroPilot to enable a FEL2 Engineering package.

Project's Key Idea/Takeaway: The project will help secure the U.S. lead in clean energy technologies by providing the critical metals required, which will be sourced within our borders, mitigating our reliance on foreign imports.

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