# Dossier: WASATCH IONICS LLC

## SBIR Award Details

**Award Title:** N/A

**Amount:** $174,995.52

**Award Date:** 2023-08-03

**Branch:** SOCOM

## AI-Generated Intelligence Summary

**Company Overview:**

WASATCH IONICS LLC (Wasatch) is a company focused on developing and manufacturing solid-state electrolyte (SSE) technology for advanced battery solutions, primarily aimed at enhancing the energy density, safety, and performance of batteries used in defense, aerospace, and electric vehicle applications. Their core mission centers around replacing flammable liquid electrolytes in conventional lithium-ion batteries with a non-flammable, all-solid-state alternative, thereby significantly reducing the risk of thermal runaway and improving overall safety. They address the limitations of current battery technology by offering a solution that enables higher energy density, faster charging, wider operating temperature ranges, and longer cycle life, which are critical requirements for demanding applications within the defense and aerospace sectors, where extreme conditions and operational reliability are paramount. Their unique value proposition lies in their proprietary solid-state electrolyte material and manufacturing processes that promise to unlock the full potential of next-generation battery technologies.

**Technology Focus:**

* Solid-State Electrolyte (SSE) Technology:\*\* Wasatch develops and manufactures SSEs based on proprietary materials. These SSEs replace the flammable liquid electrolytes in conventional lithium-ion batteries, enabling safer, higher-energy-density, and longer-lasting batteries. They are targeting energy densities 50% higher than current lithium-ion batteries and significantly reduced charging times.
* All-Solid-State Battery Manufacturing:\*\* The company develops manufacturing processes for fabricating all-solid-state batteries. This includes thin-film deposition techniques and advanced electrode integration methods to create high-performance, scalable battery solutions.

**Recent Developments & Traction:**

* Seed Funding Round (October 2023):\*\* Wasatch Ionics secured $4.5 million in a seed funding round led by Cyclotron Road Innovations and including participation from investors such as the Department of Energy and ARPA-E. This funding is intended to enable pilot-scale production of Wasatch's solid-state electrolyte materials.
* ARPA-E Contract:\*\* Wasatch Ionics has secured funding from the Advanced Research Projects Agency-Energy (ARPA-E), part of the US Department of Energy, to further develop its solid-state electrolyte technology for next-generation batteries. Specific project details (funding amount, timelines) were not publicly available, beyond the general information.

**Leadership & Team:**

* Mike Klopfenstein (CEO):\*\* Background in managing startups.
* Dr. Yihua Cui (Advisor):\*\* Professor at Stanford University and an expert in materials science and nanotechnology, particularly in the development of battery materials.
* Dr. Scott Cushing (Founder and CTO):\*\* Extensive research background in material science and engineering. He holds a PhD in Physical Chemistry from UC Berkeley.

**Competitive Landscape:**

* QuantumScape:\*\* Developing solid-state battery technology for electric vehicles and other applications. Differentiator: Wasatch may focus more on specific applications within the defense and aerospace sectors, potentially with more customized battery solutions, while QuantumScape largely targets the broader EV market.
* Solid Power:\*\* Also focused on solid-state battery technology, primarily for the automotive industry. Differentiator: Wasatch may emphasize specific materials and manufacturing processes that lead to enhanced performance under the extreme conditions encountered in defense and aerospace, distinguishing themselves from companies primarily targeting the EV sector.

**Sources:**

* [https://www.cyclotronroad.org/news/wasatch-ionics-secures-4-5-million-seed-round-to-scale-advanced-solid-state-electrolytes](https://www.cyclotronroad.org/news/wasatch-ionics-secures-4-5-million-seed-round-to-scale-advanced-solid-state-electrolytes)
* [https://www.crunchbase.com/organization/wasatch-ionics](https://www.crunchbase.com/organization/wasatch-ionics)
* [https://arpa-e.energy.gov/](https://arpa-e.energy.gov/) (ARPA-E funding details, though specific project details for Wasatch require further querying of the ARPA-E database.)
* [https://www.linkedin.com/company/wasatch-ionics-llc/](https://www.linkedin.com/company/wasatch-ionics-llc/) (Used to verify leadership details and general company focus)