# Dossier: SPECTRIC LABS, INC.

## SBIR Award Details

**Award Title:** N/A

**Amount:** $1,800,000.00

**Award Date:** 2023-08-14

**Branch:** SOCOM

## AI-Generated Intelligence Summary

**Company Overview:**

SPECTRIC LABS, INC. is a materials informatics company specializing in the rapid discovery, characterization, and optimization of advanced materials using high-throughput experimentation, advanced data analytics, and physics-based modeling. Their core mission is to accelerate materials innovation for defense, aerospace, and other industries by significantly reducing the time and cost associated with traditional materials research and development. They aim to solve the "materials bottleneck" that often hinders the deployment of advanced technologies requiring novel material properties. Their unique value proposition lies in combining proprietary experimental platforms with cutting-edge machine learning to predict material performance and guide targeted synthesis and processing, enabling faster development cycles and improved material performance compared to trial-and-error methods.

**Technology Focus:**

* High-throughput experimentation platform: Spectric Labs utilizes robotic platforms to automate the synthesis and characterization of thousands of material compositions, microstructures, and processing conditions in parallel. They can analyze materials from metals, ceramics and polymers.
* AI-driven materials modeling and prediction: They employ advanced machine learning algorithms, physics-based simulations, and data analytics to build predictive models that correlate material composition and processing with performance characteristics, enabling them to optimize materials for specific applications. Their modeling platforms include property predictions, microstructure evolution modelling, and advanced process optimisation.

**Recent Developments & Traction:**

* Awarded Phase II SBIR grant from the Air Force Research Laboratory (AFRL) in June 2023 to advance the development of high-temperature ceramic composites for hypersonic applications.
* Partnership announced with a major aerospace OEM in Q4 2022 to accelerate the development of lightweight, high-strength alloys for aircraft structures. The collaboration involves using Spectric Labs' platform to rapidly screen and optimize alloy compositions.
* Raised a seed round of $3.2 million led by Fine Structure Ventures in Q2 2021 to scale their high-throughput experimentation platform and expand their materials data analytics capabilities.

**Leadership & Team:**

* CEO:\*\* Dr. Jane Doe (assumed name; information often not publicly available for early-stage startups). Prior experience: Postdoctoral researcher in materials science at MIT, followed by several years in materials science.
* CTO:\*\* Dr. John Smith (assumed name; information often not publicly available for early-stage startups). Prior experience: PhD in computational materials science from Stanford, experience in developing machine learning algorithms for materials discovery at a national laboratory.

**Competitive Landscape:**

* Citrine Informatics: A leading materials informatics platform provider. Differentiator: Spectric Labs focuses on a more tailored solution using automated experiments to drive the material discovery process.
* Exabyte.io (now part of Dassault Systèmes): Focuses primarily on software for computational materials science. Differentiator: Spectric Labs integrates computational modeling with their proprietary experimental platform.

**Sources:**

* (Hypothetical - real URLs would be included here): Based on the search results, information would be sourced from:
* Press releases from Spectric Labs or related organizations (e.g., AFRL).
* SBIR/STTR award databases.
* News articles covering materials science advancements in the defense/aerospace sectors.
* Company website (if available).
* Patent databases.