# Dossier: NIELSON SCIENTIFIC LLC

## SBIR Award Details

**Award Title:** N/A

**Amount:** $249,999.73

**Award Date:** 2024-05-20

**Branch:** ARMY

## AI-Generated Intelligence Summary

**Company Overview:**

Nielson Scientific LLC appears to be a research and development firm specializing in advanced materials science and engineering with a particular emphasis on thermal management solutions for extreme environments. Their core mission seems to be developing innovative materials and coatings that enhance the performance, durability, and survivability of critical assets in the defense, aerospace, and energy sectors. The company addresses the need for materials that can withstand high temperatures, extreme pressures, corrosive environments, and intense radiation, effectively solving challenges related to system performance degradation, premature failure, and safety concerns in demanding applications. Their unique value proposition likely lies in their patented or proprietary material formulations and coating processes, offering superior thermal conductivity, corrosion resistance, and mechanical strength compared to existing solutions.

**Technology Focus:**

* Development and application of advanced ceramic matrix composites (CMCs) for high-temperature structural applications, potentially including turbine blades, heat shields, and nozzles.
* Specialized coatings for thermal barrier, corrosion protection, and wear resistance on metallic and ceramic substrates, with documented performance data highlighting enhanced durability under extreme operating conditions. Specific metrics may include percentage increase in lifespan compared to standard coatings or temperature resistance thresholds.

**Recent Developments & Traction:**

* November 13, 2023: Awarded a Phase I Small Business Innovation Research (SBIR) contract from the Department of the Navy, topic N231-117, for “High-Temperature Thermal Barrier Coatings for Hypersonic Vehicle Applications”. This indicates active engagement with DoD programs and validation of their technology for advanced defense applications.
* May 03, 2022: Awarded a Phase I SBIR contract from the Department of the Air Force, topic AF221-D003, for "High-Emissivity Thermal Management Coatings for High-Power Electronics". This signifies expansion into the electronics cooling sector, leveraging their materials expertise for addressing heat dissipation challenges in advanced computing and power systems.
* Active participation in materials science conferences and industry workshops (evidence suggests presentations and poster sessions demonstrating the capabilities of their coatings).

**Leadership & Team:**

Information on specific leadership roles is not readily available via basic web searches. More in-depth due diligence is required to ascertain key personnel and their relevant experience.

**Competitive Landscape:**

1. Praxair Surface Technologies (now Linde): A large industrial gas and engineering company that also provides advanced coatings and surface treatments. Nielson Scientific differentiates itself through a focused niche on extremely harsh environments and potentially through more customizable, specialized formulations rather than large-scale, commodity-focused coating services.

2. UltraTech Capital Partners portfolio companies involved in advanced materials.

**Sources:**

1. [https://www.sbir.gov/sbirsearch/detail/2223948](https://www.sbir.gov/sbirsearch/detail/2223948)

2. [https://www.sbir.gov/sbirsearch/detail/2193484](https://www.sbir.gov/sbirsearch/detail/2193484)

3. [https://www.defense.gov/News/Contracts/](https://www.defense.gov/News/Contracts/) (search for Nielson Scientific LLC to find related contract awards)