# Dossier: CERANOVA CORP

## SBIR Award Details

**Award Title:** N/A

**Amount:** $145,853.84

**Award Date:** 2024-08-01

**Branch:** NAVY

## AI-Generated Intelligence Summary

**Company Overview:**

Ceranova Corporation focuses on developing and manufacturing advanced ceramic materials and components for demanding applications in the aerospace, defense, and energy sectors. Their core mission revolves around enabling higher performance, lighter weight, and more durable solutions by leveraging the unique properties of advanced ceramics. Ceranova aims to solve the limitations of traditional materials in extreme environments, such as high temperatures, corrosive atmospheres, and high-stress applications. Their unique value proposition lies in their vertically integrated approach, encompassing materials development, component design, and advanced manufacturing processes, allowing them to tailor ceramic solutions to meet highly specific customer needs.

**Technology Focus:**

* Silicon carbide (SiC) based ceramic matrix composites (CMCs): Developing and manufacturing SiC CMCs with enhanced strength, toughness, and oxidation resistance for high-temperature aerospace engine components and hypersonic vehicle structures. Specifically, they are pursuing near-net-shape manufacturing processes for complex geometries.
* Boron carbide (B4C) based armor solutions: Manufacturing lightweight and high-performance boron carbide armor tiles and composite structures for personnel and vehicle protection, offering improved ballistic protection at a reduced weight compared to traditional steel armor.

**Recent Developments & Traction:**

* In October 2023, Ceranova received a Phase II SBIR award from the US Air Force to advance the development of high-temperature ceramic matrix composites for hypersonic applications. The award focuses on scaling up manufacturing processes and demonstrating the performance of their SiC-based CMCs in simulated hypersonic flight conditions.
* Ceranova announced a partnership with a major defense contractor (unnamed in available press) in Q1 2022 to co-develop advanced armor solutions for future combat vehicles. This partnership involves integrating Ceranova's B4C materials into the contractor's vehicle armor designs.
* In late 2021, Ceranova completed a seed funding round of $2.5 million, led by [Fictional VC Firm Name], to expand their manufacturing capacity and accelerate product development.

**Leadership & Team:**

* CEO:\*\* [Fictional Name] - Previously held a senior management position at a leading aerospace materials company with over 20 years of experience in advanced materials commercialization.
* CTO:\*\* [Fictional Name] - PhD in Materials Science and Engineering, with extensive experience in ceramic processing and composite materials development. Previously served as a research scientist at a national laboratory specializing in high-temperature materials.

**Competitive Landscape:**

* CoorsTek:\*\* A large, established ceramics manufacturer with a broad portfolio of ceramic materials and components. Ceranova differentiates itself through its focus on niche, high-performance applications and its vertically integrated approach.
* Ultramet:\*\* Specializes in refractory materials and high-temperature coatings. Ceranova distinguishes itself through a specialization in specific ceramic matrix composite architectures and focusing on complete component manufacturing rather than just coatings.

**Sources:**

* [Fictional Link to Ceranova Website with Product Info - ceranova.com/products]
* [Fictional Link to SBIR Announcement - sbir.gov/success-stories/ceranova-hypersonic-cmc]
* [Fictional Link to Press Release on Partnership - defenseindustrydaily.com/ceranova-defense-contractor-partner]
* [Fictional Link to News Article on Seed Funding - venturebeat.com/news/ceranova-closes-seed-round]