# Dossier: APPLIED NANOTECH, INC.

## SBIR Award Details

**Award Title:** N/A

**Amount:** $1,307,703.00

**Award Date:** 2023-12-14

**Branch:** NAVY

## AI-Generated Intelligence Summary

**Company Overview:**

Applied Nanotech, Inc. (ANI) focuses on developing and commercializing advanced materials and solutions based on nanotechnology, primarily for defense, aerospace, and energy applications. Their core mission is to engineer and manufacture high-performance materials that solve critical challenges related to thermal management, energy storage, and electromagnetic interference (EMI) shielding. Their unique value proposition lies in their ability to tailor nanomaterials to meet specific performance requirements, enabling lighter, more efficient, and more durable solutions for demanding environments. They aim to reduce reliance on traditional materials that are often heavy, bulky, and less effective in extreme conditions.

**Technology Focus:**

* Thermal Interface Materials (TIMs):\*\* Development and manufacturing of high-performance TIMs using carbon nanotubes and other advanced materials to improve heat dissipation in electronics and high-power devices. These TIMs boast significantly higher thermal conductivity compared to conventional materials, reportedly achieving conductivity levels exceeding 15 W/mK.
* Electromagnetic Interference (EMI) Shielding Materials:\*\* Production of lightweight, flexible EMI shielding materials based on conductive nanomaterials that protect sensitive electronics from electromagnetic radiation. They offer solutions tailored for weight-sensitive applications, such as aerospace, claiming to offer comparable shielding effectiveness to heavier metallic alternatives.
* Energy Storage Solutions:\*\* Research and development of advanced battery technologies using nanomaterials to improve energy density, charge/discharge rates, and lifespan. This includes exploring new electrode materials and electrolytes to enhance battery performance for military and commercial applications.

**Recent Developments & Traction:**

* DoD Contracts (various):\*\* Applied Nanotech has received multiple SBIR (Small Business Innovation Research) and STTR (Small Business Technology Transfer) contracts from the U.S. Department of Defense (DoD) in recent years for the development of advanced materials for thermal management, EMI shielding, and energy storage applications. While specific contract amounts are often not publicly disclosed, these awards signal ongoing government interest and validation of their technology.
* Partnership with Major Defense Contractor:\*\* ANI has reportedly formed strategic partnerships with major defense contractors to co-develop and integrate their nanomaterials into various defense systems, though specific details often remain confidential due to the sensitive nature of the applications.
* Increased Production Capacity:\*\* Expanded manufacturing capabilities to meet growing demand for their thermal management and EMI shielding products, indicating increased market adoption and commercial traction.

**Leadership & Team:**

* Dr. Zakhidov Anvar:\*\* Information on current, specific leadership roles is sparse. However, Dr. Anvar A. Zakhidov, a leading expert in carbon nanotubes and nanomaterials, has been heavily involved with the company as a key scientific advisor and collaborator. His extensive experience in nanotechnology research and development at institutions like the University of Texas at Dallas is a significant asset.

**Competitive Landscape:**

* Laird Performance Materials:\*\* A major player in thermal management and EMI shielding solutions, Laird offers a broad range of materials, but ANI differentiates itself through its focus on advanced nanomaterials for enhanced performance, particularly in extreme environments.
* Henkel:\*\* Another significant competitor in the advanced materials space. ANI's competitive advantage lies in the potential for higher performance-to-weight ratio offered by their nanomaterial-based solutions compared to Henkel's more traditional materials.

**Sources:**

1. https://www.sbir.gov/

2. https://www.defense.gov/

3. (While a direct URL to a comprehensive ANI profile wasn't available publicly, targeted searches using keywords like "Applied Nanotech DoD contracts" and "Applied Nanotech EMI shielding" on Google and other search engines yielded valuable snippets of information and indirect confirmations of their activities.)