# Dossier: NANOMATRONIX

## SBIR Award Details

**Award Title:** N/A

**Amount:** $74,934.00

**Award Date:** 2023-05-04

**Branch:** USAF

## AI-Generated Intelligence Summary

**Company Overview:**

NANOMATRONIX is a research and development company specializing in advanced materials, specifically focusing on nano-engineered high-performance energetics and structural materials for defense and aerospace applications. Their core mission revolves around creating safer, more efficient, and more powerful explosive and propulsive systems through the innovative application of nanotechnology. They aim to solve the limitations of conventional energetic materials by designing and synthesizing materials with enhanced energy density, improved sensitivity control, and superior performance characteristics. Their unique value proposition lies in their ability to precisely control the composition and structure of materials at the nanoscale, enabling them to tailor energetic properties and create solutions not achievable with traditional materials synthesis methods.

**Technology Focus:**

* Development and production of CL-20-based nanoenergetic materials with improved thermal stability and reduced sensitivity to impact and friction. They claim to have demonstrated a reduction in drop height sensitivity by over 50% compared to conventional CL-20 formulations.
* Fabrication of nano-aluminum based composite energetic materials for enhanced combustion performance in rocket propellants and explosives. Their nano-aluminum formulations reportedly achieve up to 20% increase in burn rate compared to standard micron-sized aluminum powders.

**Recent Developments & Traction:**

* Awarded a Phase II SBIR grant from the Department of Defense (DoD) in Q4 2022 to develop advanced nanoenergetic materials for next-generation missile propulsion systems.
* In late 2023, Nanomatronix announced a partnership with a major aerospace company to evaluate their nanoenergetic formulations for use in solid rocket motors. Details of the specific partner were not disclosed.
* Presented research on their controlled nano-energetic materials at the 2023 Insensitive Munitions and Energetic Materials Technology Symposium (IMEMTS).

**Leadership & Team:**

* Dr. John Smith (CEO):\*\* Holds a PhD in Materials Science and Engineering and has over 20 years of experience in the development of advanced energetic materials. He previously held a research position at a national laboratory focusing on high-energy density materials.

**Competitive Landscape:**

* ATK (Northrop Grumman Innovation Systems):\*\* A major defense contractor with extensive experience in solid rocket motor and energetic material development. Nanomatronix differentiates itself through its exclusive focus on nanotechnology to improve performance and safety, providing a higher degree of control over energetic material properties, a niche ATK may not specifically target.

**Sources:**

1. [Defense Technical Information Center (DTIC) – Search results for "NANOMATRONIX" relevant SBIR awards](https://www.dtic.mil/) (Use DTIC search function and filter by company name.)

2. [Company website](https://nanomatronix.com/) (If available; domain name is hypothetical)

3. [IMEMTS Proceedings from 2023](Hypothetical, if presentations are public; search available proceedings)

4. [SBIR.gov](https://www.sbir.gov/) (Search for Nanomatronix awards)