# Dossier: AAPlasma LLC

## SBIR Award Details

**Award Title:** N/A

**Amount:** $2,999,005.00

**Award Date:** 2024-09-18

**Branch:** DHA

## AI-Generated Intelligence Summary

**Company Overview:**

AAPlasma LLC, based in Hauppauge, NY, specializes in the development and manufacturing of advanced plasma-based solutions for aerospace, defense, and industrial applications. Their core mission appears to be improving material performance and enabling novel manufacturing processes through atmospheric pressure plasma technology. They aim to solve issues related to surface preparation, bonding, coating, and sterilization by offering customized plasma systems that are efficient, environmentally friendly, and provide superior performance compared to traditional methods. AAPlasma’s unique value proposition lies in its ability to deliver scalable, atmospheric pressure plasma solutions that can be integrated into existing manufacturing lines, offering enhanced adhesion, corrosion resistance, and other beneficial surface modifications without the need for vacuum environments or harsh chemicals.

**Technology Focus:**

* Atmospheric Pressure Plasma (APP) systems for surface treatment and modification: These systems enable surface activation, cleaning, etching, and coating deposition on a wide range of materials, including metals, polymers, and composites. They offer precise control over plasma parameters to tailor surface properties for specific applications.
* Plasma-enhanced Chemical Vapor Deposition (PECVD): AAPlasma utilizes PECVD at atmospheric pressure to deposit thin films with enhanced properties, such as improved wear resistance, barrier properties, and biocompatibility. Their PECVD processes operate at lower temperatures compared to traditional methods, allowing for the treatment of heat-sensitive materials.

**Recent Developments & Traction:**

* In 2023, AAPlasma was awarded a contract by the U.S. Department of Defense to develop advanced plasma-based solutions for corrosion prevention in military aircraft. The project aims to improve the durability and lifespan of aircraft components.
* AAPlasma has partnered with several aerospace companies to implement its plasma treatment technology for enhanced bonding and coating performance in aircraft manufacturing.
* AAPlasma has expanded its product line to include portable plasma systems for on-site surface treatment and cleaning. This allows for greater flexibility and convenience for customers in various industries.

**Leadership & Team:**

* Dr. Ronny Puzic, CEO: Dr. Puzic has a Ph.D. in Plasma Physics and extensive experience in developing and commercializing plasma technologies. He has a strong track record of securing government funding and building successful partnerships.

**Competitive Landscape:**

* Nordson MARCH: Nordson MARCH is a major player in the plasma treatment industry, offering a wide range of vacuum and atmospheric pressure plasma systems. AAPlasma differentiates itself by focusing on highly customized, scalable atmospheric pressure plasma solutions and strong customer support tailored to specific aerospace and defense applications, whereas Nordson March provides both vacuum and atmospheric pressure systems covering broad applications.

**Sources:**

1. [https://www.aaplasma.com/](https://www.aaplasma.com/) - AAPlasma's official website provides comprehensive information about their technology, products, and services.

2. [https://patents.google.com/?assignee=AAPlasma+LLC](https://patents.google.com/?assignee=AAPlasma+LLC) - Provides detail on AAPlasma's patents, giving insight into their core technology.