

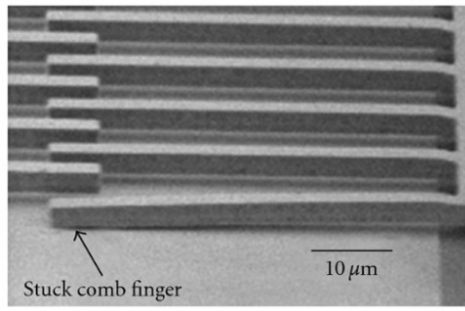
Department of the Navy SBIR/STTR Transition Program

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12/1/25

Topic # N231-076
Electrically Conductive Self-Assembled Monolayer (SAM) Anti-Stiction Coating for Micro-Electromechanical Systems (MEMS)
TRITON SYSTEMS, INC.

WHO

SYSCOM: SSP
Sponsoring Program: Navy SSP
Transition Target: MEMS Foundries
TPOC: SSP.SBIR@ssp.navy.mil
Other Transition Opportunities: Microchip Fabs
Notes: Vapor-Phase Processing via Atomic Layer Deposition (ALD)
Seeking MEMS partnership for testing and evaluation of dissipative anti-stiction coatings



Fonseca D. and Sequera M., Intl J Quality Statistics and Reliability 2011, 820243

WHAT

Operational Need and Improvement: Charge-dissipating anti-stiction coatings are desired for mitigating blocked surface charges in harsh environments.
Specifications Required: High-temperature stability.
Vapor-phase processing.
Technology Developed: Silicon functionalization processing was transferred to the vapor phase
Warfighter Value: Durable functional coatings for critical MEMS and electronics systems

WHEN

Contract Number: N64267-25-C-7120 **Ending on:** Jul 30, 2026

Milestone	Risk Level	Measure of Success	Ending TRL	Date
Metric Development	Medium	Identifies native oxide test case.	2	4th QTR FY25
Vapor Phase Processing	Low	Coating via ALD	3	1st QTR FY26
Test Device Evaluation	Medium	Evaluation of a coated MEMS	5	3rd QTR FY26

HOW

Projected Business Model: Technology licensing or precursor formulation sales to MEMS and electronics foundries.
Company Objectives: Materials and Device Innovation
Potential Commercial Applications: Advanced silicon-based devices, including plasma generators, energy harvesters, microsensors, and chips.

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