



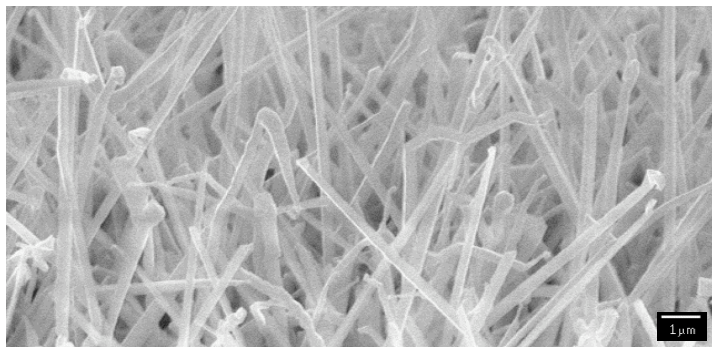
# Press Release



November 2009

## SMI Works with Drexel University On a Grant to Research Low Dimensional Semiconductor Plasmonic Structures.

Structured Materials Industries, Inc. (SMI) is collaborating with researchers at Drexel University on the study of plasmonic properties in III-V semiconductor nanowires. [Professor Jonathan Spanier](#), associate professor in the Department of Materials Science and Engineering, and co-PIs Dr. Gary Tompa of Structured Materials Industries, Inc. (SMI), [Professor Bahram Nabet](#) of Drexel University, and Dr. Nick Sbrockey of SMI have been awarded a \$468,149 Grant Opportunities for Academic Liaison with Industry (GOALI), "[GOALI: Low-Dimensional Plasmonic Semiconductor Materials](#)" from the National Science Foundation (NSF). This project researches the fabrication of semiconductor nanowires and multicore nanowires and their response to electromagnetic waves. SMI will refine the deposition of GaN nanowires using its scalable GaNomite™ metalorganic chemical vapor deposition (MOCVD) tool for this program. This project will advance understanding of how multi-component group III-V based semiconductor nanowire materials can be fabricated to allow and enhance the confinement and control of charge-density waves. This research may lead to the development of tunable, resonant terahertz detection and emission structures, advanced chemical sensors, and unique electronic devices.



Structured Materials Industries, Incorporated is a leader in advanced and custom Chemical Vapor Deposition (CVD) tool and related technologies. SMI offers for sale: systems, components, materials, and process development services. SMI has an in-house applications laboratory featuring multi-reactor deposition systems and analytic capabilities, has developed a range of strategic partnerships to develop and implement MOCVD technology and looks forward to continuing to grow and expand upon mutually advantageous relationships.

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