



Press Release

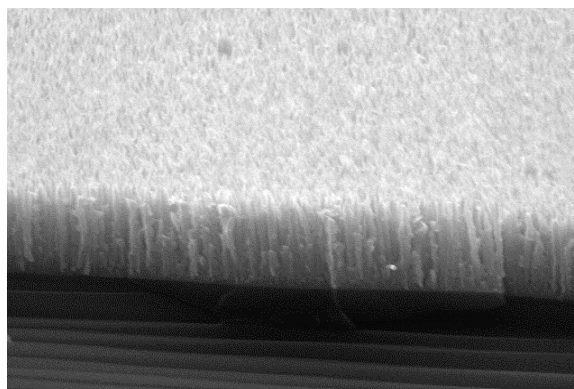
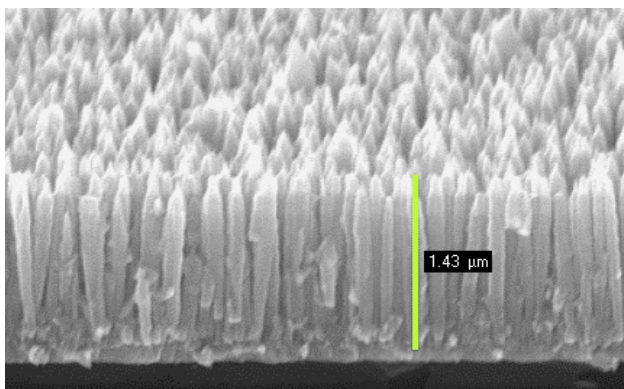


November 2009

SMI and Drexel University Awarded a NAVY Phase I STTR For ZnO Nanowire UV Focal Plane Arrays

Structured Materials Industries, Inc. (SMI) announces that it has received a Phase I STTR award to develop "Full Spectrum Zinc Oxide Nanowire Sensors by MOCVD". In this work SMI will work in collaboration with Drexel University to develop an electrically contacted, aligned, zinc oxide nanowire array for highly efficient, broad spectrum focal plane imaging arrays. The properties of ZnO make it a very promising material for optoelectronic devices and Metal Organic Chemical Vapor Deposition (MOCVD) is the ideal tool to fabricate high quality, aligned ZnO nanowires because of its scalability and process efficiency. The nanowires are being grown at SMI's application laboratory using an SMI Legend series reactor. A focal plane array composed of dense arrays of ZnO nanowires has great potential as a highly sensitive, low noise imager capable of operation over a broad wavelength range. Sensitizers and multilayer coatings on the surface of the nanowires allow targeted wavelength sensitivity.

Potential commercial applications include solar blind imaging, as well as full spectrum imaging. The technology will also be applicable to chemical sensing and could potentially lead to a wide variety of new nanotechnology applications.



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.

Contact Information

General and Technical Information this release:
gstompa@structuredmaterials.com
Structured Materials Industries, Inc.
Unit 102/103, 201 Circle Drive N.
Piscataway, New Jersey 08854
Phone: 732.302.9274
Fax: 732.302.9275

Web: www.structuredmaterials.com