



Press Release



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SMI Announces Successful Completion of DARPA Phase I SBIR to Develop Hydride-Organometallic Vapor Phase Epitaxy (HOVPE) of InGaN Based Compounds

Structured Materials Industries, Inc. (SMI) announced today that it had successfully completed a Phase I DARPA SBIR to develop and demonstrate proof of concept that the best of MOCVD tools and HVPE tools could be combined into a single efficient low cost scalable tool technology. Specifically, SMI developed proprietary (and now patent pending) hardware and processes technologies to more effectively produce InGaN based products. The combined technology allows for film deposition in either or a hybrid mode of operation – thus allowing the potential for high “HVPE” growth rates for thick layers and precision “MOCVD” growth rates for quantum well layers. Demonstrated in the program were films of InN, InGaN, and GaN deposited on Sapphire and other substrates. The SMI technology builds upon its GaNomite™ line of GaN MOCVD reactors. Demonstrated at R&D scale; SMI is now looking to further scale the technology for production. The increase in throughput associated with increasing depositions rates and the decrease in costs associated with low cost metal sources has the potential to reduce production costs to ~20% of that of present production costs.

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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