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## **ALD NanoSolutions, Inc.**

*Precision NanoCoating for NanoParticles*

### **ALD NanoSolutions Awarded \$149,919 Phase I STTR NSF Grant**

December 2006 - ALD NanoSolutions, Inc. has announced the award of a \$149,919 Phase I Small Business Technology Transfer (STTR) grant from the National Science Foundation (NSF) for "Hybrid Carbon Reinforced Ceramic Nanocomposites." The award is effective January 1, 2007, and the funds will be used to develop carbon nanotubes (CNTs) coated by atomic layer deposition (ALD) for use in composite materials.

If successful, these modified CNTs will help overcome compatibility and adhesion issues between the nanotube and the ceramic matrix material in CNT/ceramic composites, allowing the composite to take better advantage of the incredibly high strength and stiffness of the CNTs. These CNT/ceramic composites would find use in a variety of structural applications, including armor plating. The incorporation of CNTs into the ceramic will impart added strength and toughness to the armor, resulting in superior performance.

This grant, administered through the Industrial Innovation and Partnerships division, is ALD NanoSolutions' ninth NSF small business grant. The research, done in partnership with the George and Weimer Laboratories at the University of Colorado - Boulder, is an important part in the company's continuing effort to prove the flexibility of atomic layer deposition in the custom designing of composite particles.

### **About ALD NanoSolutions**

ALD NanoSolutions, Inc. is focused on commercializing its nano-coating processes, called Particle-ALD™ and Polymer-ALD™, and is targeting collaborative research agreements with domain partners for the discovery and validation of innovative composite materials in selected industries. The company's proprietary technology is based on atomic layer deposition (ALD) coating chemistry methods developed for depositing ultra-thin films on particulate and polymeric surfaces. For more information, visit [www.aldnanosolutions.com](http://www.aldnanosolutions.com).