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Press Release

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Advanced Diamond Technologies Awarded Grant to Develop the Next Generation of Pad Conditioners for CMP

Romeoville, IL—July 14, 2010—Advanced Diamond Technologies (ADT) received a Phase I Small Business Innovation Research (SBIR) grant from the National Science Foundation (NSF) to develop the next generation of chemical mechanical planarization (CMP) pad conditioners for the semiconductor industry. The controlled geometrical protrusions on ADT's microfabricated diamond CMP pad conditioners enable the production of next generation semiconductor devices while offering the unsurpassed chemical inertness of diamond without the "pull out" failure that characterize currently available diamond CMP pads.

ADT's pad conditioners feature highly repeatable 3D diamond structures that create a textured surface, and many different structure heights and pitches can be easily engineered. These pad conditioners are manufactured using highly refined semiconductor processing techniques which enable ADT to offer products that are of much higher quality than the current generation of conditioners at competitive prices.

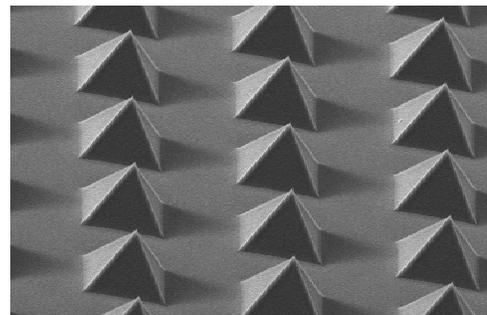


Image of Advanced Diamond Technologies' highly repeatable, wafer scale, 3D diamond structures available in different structure heights and pitches for engineered CMP pad conditioners. Shown are all-diamond pyramids, six microns wide at the base.

"The benefits of a micromachined diamond surface include low wear and precise diamond patterning, to meet the demands of the 32 nm node and beyond, which can result in CMP pad conditioners that last longer and perform better than the current industry standards," said Dr. John A. Carlisle, chief technology officer, ADT.

"With a potential order of magnitude increase in lifetime for the pad conditioner, the frequency of changing both pad and pad conditioner can be reduced, saving time and money," said Dr. Diane P. Hickey, director of sales and marketing, ADT. "Our pad conditioners can be designed and optimized for different pad and slurry combinations. We are partnering with CMP industry players to bring this exciting technology to market."

ADT gratefully acknowledges the NSF's SBIR program for sponsoring this work.

About Advanced Diamond Technologies

ADT is the world leader in the development of diamond for industrial, electronics, energy, and medical applications. ADT is a World Economic Forum 2007 Technology Pioneer, a recipient of a 2008 EuroAsia IC Award in the Materials Enabling category from *EuroAsia Semiconductor*, a 2008 R&D 100 Award winner for UNCD[®] Seals (mechanical seals for pumps), and a 2009 R&D 100 Award winner for NaDiaProbes[®] (the world's first all-diamond atomic force microscopy probes). ADT sells wafer scale diamond products to the semiconductor consumables industry. For more information about ADT, visit www.thindiamond.com.

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