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sp3 Diamond Technologies Provides Diamond-on-Silicon Process to MEMS Exchange

SANTA CLARA, Calif. — July 21, 2006 — sp3 Diamond Technologies, Inc. has announced the incorporation of their diamond-on-silicon (DOS) foundry service into processes offered by the MEMS and Nanotechnology Exchange. This will provide MEMS and Nanotechnology developers with easy access to sp3's proprietary CVD diamond deposition services and to the thermal, mechanical, and wear benefits of diamond. Completed as part of a DARPA contract award, sp3 has transferred a nanoparticle seeding process developed by the Naval Research Laboratory into its process flow, which will now be available through the MEMS Exchange.

In addition to providing a foundry service for customer-supplied wafers, sp3 sells standard DOS wafers with various diamond grain characteristics and film thicknesses. These wafers can have microcrystalline or nanocrystalline films and can be doped or undoped. The range of films available enables multiple applications to take advantage of the superior characteristics of diamond films. Since the DOS wafers are fabricated in a large area, hot-filament CVD deposition reactor, the process is commercially scalable from the start.

“We welcome the introduction of sp3's diamond thin-film process,” said Michael Huff, Director of the MEMS and Nanotechnology Exchange. “This diamond process is a significant addition to the many enabling processes already available to MEMS Exchange users.”

“DARPA's support for the use of diamond thin films in MEMS devices has enabled this process introduction,” stated Dwain Aidala, president and COO of sp3 Diamond Technologies. “The properties of diamond make it an ideal material for use in MEMS devices, where mechanical management and manufacturing processes are critical. By reducing wear and stiction problems, MEMS devices utilizing diamond are expected to perform better and last longer than devices manufactured with other materials. We are starting to see significant results obtained by researchers using this material.”

About sp3 Diamond Technologies, Inc.

Diamond is hard, durable, stiff, thermally conductive and electrically insulating. These are just some of the many qualities that diamond offers making it ideal for a wide variety of applications, from cutting tools to advanced semiconductor manufacturing. sp3 Diamond Technologies makes CVD (chemical vapor deposition) diamond for a broad range of applications where current materials have reached their limit. Our ability to make and deposit diamond is a direct result of our proprietary chemical vapor deposition diamond reactor technology and our coating services capability. It is this technology that allows us to deposit uniform thin-film diamond and do it cost-effectively. Consistent and cost-effective manufacture of CVD diamond is in turn broadening the material's appeal throughout multiple industries where diamond could be considered the material of choice.

Based in Santa Clara, California, USA, the company provides diamond products for advanced thermal applications, diamond coating and material services, hot filament CVD reactors, and deposition consulting services. sp3 Diamond Technologies is a subsidiary of sp3 Inc., a full service provider of products and services relating to thin-film and freestanding diamond deposition and other diamond materials. For more information about the company and its products and services please visit www.sp3inc.com.

About the MEMS and Nanotechnology Exchange

The MEMS and Nanotechnology Exchange is the nation's leading provider of high-quality foundry and consulting services. Their 54 individual state-of-the-art foundries offer the most comprehensive and diverse set of implementation solutions for MEMS, micro- and nano-technologies in the world. The MEMS and Nanotechnology Exchange customer list includes more than 650 organizations in the U.S., including multinational corporations, small start-ups, leading academic research institutions, and government facilities.

DARPA Support

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