



## **ALTATECH ANNOUNCES FAST, NEW ATOMIC-LAYER CVD SYSTEM**

*This equipment has been designed by the Soitec's division to fabricate high-density, energy efficient memory ICs*

**Montbonnot, France, December 3rd, 2014** — Altatech, a division of Soitec, has introduced the AltaCVD 3D Memory Cell™, a new member of its AltaCVD product line designed to deposit ultra-thin semiconductor films that enable the manufacturing of high-density, low-power memory ICs used throughout mobile electronics. The new system performs atomic-layer deposition 10 times faster than conventional ALD systems, helping to meet global market demands for both high-volume production and cost efficiency in fabricating advanced memories.

“The performance of today’s pervasive mobile devices, which many of us now take for granted, would not be possible without atomic-layer deposition technology, such as enabled by our newest CVD solution,” said Jean-Luc Delcarri, general manager of Soitec’s Altatech Division.

As the global semiconductor industry turns to 3D device architectures to increase memory capacity and boost IC performance for mobile applications, advanced material deposition is needed to create atomic-layer films with high uniformity and stoichiometry control. Altatech’s AltaCVD 3D Memory Cell can deposit the needed layers of chalcogenide materials by using a combination of precursors.

In addition to working with conventional gaseous or solid precursors, Altatech’s new tool uses patented pulsed technology to take advantage of advanced CVD precursors that are available only in liquid form. This versatility allows the system to achieve exceptional step coverage over features with very high aspect ratios, a key performance requirement in creating the vertical integration that enables high-density memory circuits.

The AltaCVD 3D Memory Cell also can perform advanced pre-treatment of semiconductor surfaces to improve circuit functionality as well as post-treatment of surfaces to enhance memory cells’ electrical performance.

Designed to process 200-mm or 300-mm substrates, the AltaCVD 3D Memory Cell uses a single-wafer, multi-chamber architecture to deliver both single-wafer process control and volume-manufacturing capability.

The system is currently demonstrating its unique capabilities and performance at one of Altatech’s key customers and production units are available.

**Altatech will exhibit at the SEMICON Japan trade show, December 3-5 in Tokyo, in hall 3, booth #3423, where information on its complete line of products will be available.**

**About Altatech's Technology and Equipment Expertise:**

Soitec's Altatech Division offers a unique portfolio of equipment for mature and advanced materials deposition and holistic defect inspection. It develops highly efficient, cost-effective inspection and chemical vapor deposition (CVD) technologies used for R&D and manufacturing of semiconductors, LEDs, MEMS and photovoltaic devices. Altatech Semiconductor S.A. became a subsidiary of Soitec in January 2012.

**About Soitec:**

Soitec is an international manufacturing company, a world leader in generating and manufacturing revolutionary semiconductor materials at the frontier of the most exciting energy and electronic challenges. Soitec's products include substrates for microelectronics (most notably SOI: Silicon-on-Insulator) and concentrator photovoltaic systems (CPV). The company's core technologies are Smart Cut™, Smart Stacking™ and Concentrix™, as well as expertise in epitaxy. Applications include consumer and mobile electronics, microelectronics-driven IT, telecommunications, automotive electronics, lighting products and large-scale solar power plants. Soitec has manufacturing plants and R&D centers in France, Singapore, Germany, and the United States. For more information, visit: [www.soitec.com](http://www.soitec.com).

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