

Corporate News

SEMATECH and centrotherm Partner to Develop Low Temperature Processes for Future CMOS and Memory Devices

- Joint effort to extend the technology roadmap for enabling process technologies
- Partnership is part of centrotherm's strategy to expand the semiconductor segment

Blaubeuren/Albany, NY, April 10, 2012 – SEMATECH today announced that centrotherm thermal solutions, a 100% subsidiary of centrotherm photovoltaics AG and a developer of process tools and high-tech production systems for the manufacture of semiconductor components, has joined its Front End Processes (FEP) program, and will work with SEMATECH to develop new low temperature processing techniques for future high-performance logic and memory devices.

Continued scaling will require new materials and new device concepts that necessitate lower thermal budget process flows. For example, to enable the introduction of high mobility semiconductors as the channel material of transistors, low temperature processes are critical to preserve the beneficial properties of channel materials. Similarly, advanced memory technologies require superior isolation as well as low thermal budget oxidation approaches – especially for metal oxide RRAM devices. Plasma-based processing techniques offer an attractive approach to help realize such low-thermal budget processes to enable the integration of new materials into emerging device technologies.

As a member of this program, centrotherm will closely collaborate with experts from SEMATECH's FEP research team, to develop plasma-based low temperature techniques using SEMATECH test structures. The goal of this team would be to demonstrate their applicability towards usage in high performance logic transistors and memory devices in sub 14 nm advanced technology nodes.

“SEMATECH provides centrotherm with an excellent test device and characterization platform to help centrotherm identify and demonstrate applications for our tool,” said Peter Augustin, CEO of centrotherm thermal solutions GmbH & Co. KG. “This collaboration will enable centrotherm to showcase low temperature processing capabilities to our customers and is part of our ct focus program to expand our Semiconductors & Microelectronics area.”

“SEMATECH is pleased to welcome centrotherm as a partner,” said Raj Jammy, SEMATECH’s vice president of emerging technologies. “centrotherm’s unique expertise in thermal solutions will complement our own device and process expertise. We will work together to develop practical and promising manufacturable solutions to address the emerging needs of the advanced transistor and memory markets.”

The goal of SEMATECH’s FEP program is to provide novel leading-edge materials, processes, structural modules and electrical and physical characterization methods to support the continued scaling of logic and memory applications.

About centrotherm

centrotherm thermal solutions GmbH & Co. KG, a 100% subsidiary of centrotherm photovoltaics AG, develop processes and high-tech production systems for the manufacture of semiconductor components. In addition to the processes and technology, centrotherm’s core area of expertise also covers the construction and design of products. They find use in a wide range of thermally-activated processes in various technologies and applications (e.g. power semiconductors, LEDs, micromechanics, MEMS, sensor technology).

centrotherm photovoltaics AG, which is based at Blaubeuren, Germany, is one of the world’s leading technology and equipment provider for the photovoltaics sector. The company equips well-known solar companies and new sector entrants with turnkey production lines and single equipment to manufacture silicon, crystalline solar cells and thin film modules. As a consequence, the Group possesses a broad and well-founded technological basis, as well as key equipment at practically all steps of the photovoltaics value chain. centrotherm photovoltaics guarantees its customers important performance parameters such as production capacity, efficiencies, and completion deadlines. The Group employed around 1,900 staff as of the December 31, 2011 reporting date, and operates globally in Europe, Asia and the USA. centrotherm photovoltaics achieved revenue in the 2011 financial year of around EUR 700 million. The company is listed in the TecDAX index on the Frankfurt Stock Exchange. For more information see www.centrotherm.de.

About SEMATECH:

SEMATECH®, the international consortium of leading semiconductor device, equipment, and materials manufacturers, this year celebrates 25 years of excellence in accelerating the commercialization of technology innovations into manufacturing solutions. Through our unwavering commitment to foster collaboration across the nanoelectronics industry, we help our members and partners address critical industry transitions, drive technical consensus, pull research into the industry mainstream, improve manufacturing productivity, and reduce risk and time to market. Information about SEMATECH can be found at www.sematech.org.

Contact:

SEMATECH®

Erica McGill
001-518-649-1041
E-Mail: erica.mcgill@sematech.org

centrotherm

Saskia Feil
Senior Manager Investor & Public Relations
Tel: +49 7344 918-8890
E-mail: saskia.feil@centrotherm.de

Dr. Torsten Knödler
Manager Public Relations
Tel: +49 7344 918-8898
E-mail: torsten.knoedler@centrotherm.de