



## SOITEC'S ALTATECH SUBSIDIARY PARTNERS WITH HELMHOLTZ-ZENTRUM BERLIN AND INSTALLS NEW CVD SYSTEM

Montbonnot, France and Berlin, Germany, February 20, 2014 — Altatech, a subsidiary of Soitec, and Helmholtz-Zentrum Berlin für Materialien und Energie (HZB), a member of the Helmholtz Association of German Research Centres, have launched a collaborative partnership to research and develop materials for the next generation of high-efficiency solar cells, including new classes of materials and innovative device structures for photovoltaic and photocatalysis applications. As part of the organizations' joint effort, Altatech will install a new single-substrate multi-chamber solution, an AltaCVD system, at HZB's newly constructed Energy Materials Insitu Laboratory (EMIL) at the synchrotron light source BESSY II facility in Berlin and will work with the institute to investigate new materials-deposition processes, functional interfaces and device structures for solar energy conversion and storage.

Altatech's new AltaCVD system will be used in HZB's EMIL lab to deposit amorphous silicon (alloys), transparent conductive oxides and ultra-thin dielectrics used in fabricating next-generation solar energy devices. The CVD system will be hosted by the new EMIL building, adjacent to the third-generation storage ring BESSY II. The cluster tool will be directly connected to a state-of-the-art X-ray analytical end-station, which accesses a dedicated beam line from BESSY II. The partner organizations will conduct atomic-layer deposition, plasma-enhanced chemical vapor deposition and physical vapor deposition on substrates ranging from small research samples up to fully industry-compatible six-inch wafers and use EMIL's outstanding analytical capabilities to analyze material and interface properties in between successive processing steps.

"EMIL aims at exploring materials for high-efficiency photovoltaic cells and new catalytic processes for future solar energy generation and storage concepts. We will develop and characterize these materials with basic energy research methods, but prepare them with industrially related methods to ensure rapid industrial implementation," said Prof. Klaus Lips, head of the EMIL project and HZB's Advanced Analytics Group. "The AltaCVD system provides us with a unique combination of a highly flexible design in terms of temperatures, precursors, plasma cleaning, etc. with a fully industrial-compatible deposition technology."

"This order reinforces the AltaCVD system's leadership position in advanced material-deposition applications," said Jean-Luc Delcarri, general manager of Soitec's Altatech subsidiary. "Our collaboration with the Helmholtz-Zentrum Berlin allows us to apply our advanced material-deposition technology at a state-of-the-art synchrotron radiation facility. Together, we are opening the door to a new era in advanced renewable-energy development that will help researchers to tackle the challenges of future world energy needs."

The versatile AltaCVD tool provides the processing flexibility and performance needed for both research projects and volume manufacturing. The platform, which can be configured with up to six chambers, uses single-wafer deposition technology in developing new process integration while safeguarding against unacceptable contamination and defectivity. Altatech's CVD system is designed to deposit thin- and thick-film materials with extremely high uniformity and film-thickness control, key parameters needed for solar, semiconductor and MEMS applications.

About Helmholtz-Zentrum Berlin für Materialien und Energie: The Helmholtz-Zentrum Berlin für Materialien und Energie (HZB) operates and develops large-scale facilities for research with photons (synchrotron beams) and neutrons. The experimental facilities, some of which are unique, are used annually by more than 2,500 guest researchers from universities and other research organizations worldwide. Above all, HZB is known for the unique sample environments that can be created (high magnetic fields, low temperatures). HZB conducts materials research on themes that especially benefit from and are suited to large-scale facilities. Research topics include magnetic materials and functional materials. In the research focus area of solar energy, the development of thin-film solar cells is a priority, while chemical fuels from sunlight are also a vital research theme. HZB has approximately 1,100 employees of whom some 800 work on the Lise-Meitner Campus in Wannsee and 300 on the Wilhelm-Conrad-Röntgen Campus in Adlershof.

HZB is a member of the Helmholtz Association of German Research Centres, the largest scientific organization in Germany.

**About Altatech's Technology and Equipment Expertise:** Altatech 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<sup>TM</sup>, Smart Stacking<sup>TM</sup> and Concentrix<sup>TM</sup>, 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: <a href="https://www.soitec.com">www.soitec.com</a>.

## **International Media Contacts**

(trade press)
Camille Dufour
+33 (0)6 79 49 51 43
camille.dufour@soitec.com

(business press)
Marylen Schmidt
+33 (0) 4 76 92 87 83
marylen.schmidt@soitec.com

Investor Relations Olivier Brice +33 (0)4 76 92 93 80 olivier.brice@soitec.com

###