



## **SOITEC AND SILIAN ENTER JOINT DEVELOPMENT AGREEMENT ON GALLIUM NITRIDE TEMPLATE WAFERS TO ENABLE MORE EFFICIENT LED PRODUCTION**

### **Novel Epitaxy Approach Increases Productivity of LED Manufacturing and Accelerates Adoption of Solid-State Lighting**

***Bernin, France and Chongqing, China, July 9, 2012*** — Soitec (Euronext), a world leader in generating and manufacturing revolutionary semiconductor materials for the electronics and energy industries, and Chongqing Silian Optoelectronics Science & Technology Co., Ltd. (Silian), an established supplier of materials, devices and systems for the lighting industry, have partnered to jointly develop gallium nitride (GaN) template wafers using hydride vapor phase epitaxy (HVPE). The resulting GaN template wafers present breakthrough cost savings in manufacturing LEDs.

The companies' joint development agreement aims at validating the manufacturability and enabling the commercialization of GaN template wafers using Silian's sapphire substrates and Soitec's unique HVPE technology. The partner companies plan to begin sampling GaN template wafers this year.

Chantal Arena, vice president and general manager of Soitec Phoenix Labs, where the HVPE technology was developed, said, "Our strategy was to use production-proven silicon epitaxy equipment features and add our innovative gallium source and delivery system to create a high productivity HVPE equipment. We then successfully developed high growth rate processes that combined with our low cost precursor leads to a more cost effective GaN template than the ones produced by metal organic vapor phase epitaxy (MOVPE)."

"Silian is excited to work with Soitec and adopt its HVPE technology," said David Reid, COO of Silian. "With our extensive sapphire substrate manufacturing expansion activities in China, we are very well positioned to take advantage of this opportunity and offer these high quality templates in a cost effective manner to our sapphire substrate customers."

"This development of HVPE technology introduces a revolutionary business model and allows LED makers to free up as much as 60 percent of their MOVPE capacity. LED makers can now focus on improving the more custom-designed layers that make up the light-emitting part of an LED," said André-Jacques Auberton-Hervé, president and CEO of Soitec. "In addition to this business opportunity, we are exploring the possibility of expanding our cooperation with Silian into the field of LED lighting, leveraging Soitec's expertise in epitaxial growth developed by our Soitec Phoenix Labs subsidiary in Arizona."

Chairman Xiaobo Xiang of China Silian Instruments Group, Silian's holding company, added, "Soitec and Silian have very attractive complementary technologies. Therefore, we look forward to exploring with Soitec the mutual beneficial business opportunities offered by the vast markets of materials, LEDs and lighting."

### **About Silian**

Chongqing Silian Optoelectronics Science & Technology Co., Ltd (Silian) was founded by China Silian Instrument Group Co., Ltd for the development of LED industry. After the acquisition of the Honeywell sapphire substrate business, Silian has become China's first enterprise with high quality large diameter sapphire substrate production and R&D capabilities. Silian's product range covers a full spectrum of the LED supply chain, from world leading large diameter sapphire substrates, packaged LEDs, LED display screens, LED lighting applications and smart lighting system control technology. Based on the core technologies of sapphire substrates, LED lighting and a flexible manufacturing base, Silian is the most complete and the largest semiconductor energy-efficient industrial base in western China. Silian has a strong sales and distribution network, sub-manufacturing plants and R&D centres located in China and North America. For more information, visit: [www.silianopto.com](http://www.silianopto.com)

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### **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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