



Translucent

Earth Abundant Materials Technology

For immediate release

Translucent Announces Commercial Availability of vGaN™ Wafer Templates for Low-Cost Epitaxial Growth of GaN Devices

Palo Alto, Calif., August 8, 2011 —Translucent, Inc., a provider of rare-earth-oxide (REO) engineered silicon substrates for low-cost, high-performance epitaxial semiconductor applications, announced today the commercial availability of its vGaN™ family of silicon-based wafer templates. The vGaN products provide a low-cost, high-quality epitaxial surface for the growth of gallium nitride (GaN) devices such as light-emitting diodes (LEDs) or field-effect transistors (FETs).

The vGaN product line is the world's first commercial REO-based family of 'III-N semiconductors' with scalable GaN-on-Si wafers. Translucent's use of crystalline REO layers provides stress relief and wafer flatness through customized lattice engineering, leading to a high quality growth surface. In addition, the wide bandgap of the REO layer is expected to lead to much higher breakdown-voltage characteristics for FETs grown on vGaN.

vGaN stands for "virtual gallium nitride." It provides a semiconductor growth surface that has the physical properties of GaN, but utilises a silicon substrate upon which is grown an epilayer of REO material that accommodates a top epilayer of Group III nitrides such as GaN. The vGaN substrate enables for the first time, industry-standard MOCVD growth processes with the low cost structures and economies of scale currently enjoyed by the silicon industry.

Michael Lebby, Translucent's general manager, noted, "We are bringing a decade of Translucent REO epitaxial experience to bear on the challenge of enabling GaN growth to scale cost-effectively well beyond current limitations. Our vGaN platform is an 'on-silicon' technology, allowing us to harness mature silicon-substrate technologies and

their low costs, and we expect this to have an extremely beneficial impact in driving down costs for GaN-based LEDs and FETs.”

GaN is typically grown on sapphire substrates, which are significantly more expensive at large diameters, especially 200 mm and larger. Additionally, a major challenge facing device manufacturers today is the handling of the large, heavy, and expensive sapphire wafers. Such handling may require the purchase of special handling equipment for the fabrication plants. Conversely, the widely-used infrastructure of fabrication plants that are ready to run silicon wafers up to 200 mm already exists. This makes large-diameter silicon an ideal choice to bring economies of scale into the lighting (LED) and power electronics (FET) industries.

Translucent’s vGaN wafers are already available today at 100 mm diameters, with 150 and 200 mm becoming available during the next year.

About Translucent

[Translucent, Inc.](#), a subsidiary of Australian listed company [Silex Systems Limited](#). (SLX: ASX), is an advanced materials company founded in 2001 that focuses on using rare-earth oxides to provide low-cost, silicon-based templates for epitaxial growth of semiconductors. With its emphasis on GaN- and GaAs-compatible growth platforms, Translucent is developing products for the solar, power FET, and solid-state lighting (LED) industries. vGaN is a registered trademark of Translucent, Inc. More information is available at www.translucentinc.com and www.silex.com.au.

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Forward Looking Statements and Business Risks:

Silex Systems is a research and development Company whose assets are its proprietary rights in various technologies, including, but not limited to, the SILEX technology, the Silex Solar technology and business, Solar Systems technology and business, Translucent technology and ChronoLogic technology. Several of the Company’s technologies are in the development stage and have not been commercially deployed, and therefore are high-risk. Accordingly, the statements in this announcement regarding the future of the Company’s technologies and commercial prospects are forward looking and actual results could be materially different from those expressed or implied by such forward looking statements as a result of various risk factors. Some risk factors that could affect future results and commercial prospects include, but are not

limited to: results from the SILEX uranium enrichment development program and the stable isotopes program; the demand for enriched materials including uranium, silicon, oxygen, carbon and others; the business risks associated with SilexSolar's manufacturing and marketing activities; the risks associated with the development of Solar Systems technology and related marketing activities; the outcomes of the Company's interests in the development of various semiconductor, photonics and alternative energy technologies; the time taken to develop various technologies; the development of competing technologies; the potential for third party claims against the Company's ownership of Intellectual Property associated with its numerous technologies; the potential impact of government regulations or policies; and the outcomes of various commercialization strategies undertaken by the Company.