

Anvil Semiconductors transfers its 3C-SiC on silicon wafer production to Norstel.

Anvil Semiconductors announces that it has secured a production source for its proprietary 3C-SiC on silicon epiwafers with commercial SiC wafer and epitaxy supplier Norstel AB.

Anvil's novel process for the growth of device quality 3C-SiC epilayers on silicon wafers has been successfully transferred onto production reactors at Norstel's state-of-the-art facilities in Norrköping, Sweden. Layers grown using Anvil's patented stress control techniques permit both 650V and 1200V devices to be realised.

Anvil is currently developing vertical SBDs and MOSFETs on its 3C-SiC on silicon wafers for supply and license to the multi-billion dollar power electronics market. The use of silicon substrates and epitaxial growth of cubic silicon carbide enables fabrication of devices with the performance and efficiency benefits of SiC but at significantly lower material and manufacturing costs, a key target for the power electronics industry.

Jill Shaw, CEO of Anvil Semiconductors commented: "I'm delighted with this development. Getting the process onto production equipment at Norstel underlines the capabilities of our technology. It opens the way for the use of multi-wafer reactors for our future production needs and a move to 150mm diameter wafers."

Ronald Vogel, CCO of Norstel AB added: "We are delighted that our proven high quality production expertise and capabilities in SiC epitaxy have helped Anvil to demonstrate the viability of their 3C-SiC solution and that Norstel's manufacturing capacity will pave the way for Anvil's volume production".

About Anvil Semiconductors

Anvil Semiconductors which is backed by Business Angels and early stage VCs was established in August 2010 to develop silicon carbide power devices for the power electronics industry.

Anvil has unique technology that enables the growth of device quality 3C-SiC epitaxy on 100mm diameter silicon wafers to thicknesses that permit the fabrication of vertical power devices. The proprietary process overcomes mismatches in lattice parameter and thermal coefficient of expansion and can be readily migrated onto 150mm wafers and potentially beyond. The Anvil material has applications ranging from power devices and LEDs to medical devices and MEMS. It can be used to fabricate high performance SiC devices with significant reductions in manufacturing costs, or as a means to enable the growth of other compound semiconductor structures onto silicon

Power electronics and switches are used to switch and control power from AC line to DC conversion for applications as diverse as laptop computers or other consumer products to railway electric traction and the grid. In the modern world it is ubiquitous and plays a key role in improving the efficiency in energy utilisation of everyday products.

The Company has offices in Coventry and Cambridge and has a small experienced team and an extensive network of Industrial and Academic partners

For more information see www.anvil-semi.co.uk

About Norstel

Norstel AB is a manufacturer of conductive and semi-insulating silicon carbide wafers and single-crystal epitaxial layers deposited by CVD epitaxy.

Norstel stands for excellence in Silicon Carbide (SiC). The company has a long history in developing SiC process technology and SiC products with outstanding capabilities and quality. Norstel offers state-of-the-art n-type and semi-insulating SiC substrates and related services for wafer epitaxy, characterization and polishing for high performance semiconductors used in Power and HF Electronics.

Applications amongst others include power electronic components used in hybrid cars, industrial equipment, power conversion and transmission, mobile phone base stations and radar systems where energy can be saved and performance improved by SiC devices and related systems solutions.

For more information visit www.norstel.com or contact ronald.vogel@norstel.com