

## **Norstel and Ascatron join forces to provide a complete offering in SiC epitaxy**

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Ascatron AB, experts in silicon carbide (SiC) epitaxy and Norstel AB, a pioneer in SiC substrates and epitaxy wafers, have entered into a cooperation agreement to jointly address the market for SiC epitaxy. Both Norstel and Ascatron are already providing SiC epitaxy to the power electronic industry, but by utilizing and sharing their respective expertise, equipment and capabilities, the two companies expect to leverage their businesses. Another reason for the cooperation is new sharpened demand for high performance epitaxy in terms of layer thickness, advanced structures and higher quality, all driven by semiconductor device manufacturers targeting higher voltages, new device types and generally better yield in device fabrication.

While Norstel's core offering being SiC crystal growth and high quality SiC wafers including epitaxy for volume production, Ascatron specialty is customized SiC epitaxy and device design. "By combining the proven epitaxy production capacity of Norstel with our experience of advanced material we will be able to serve all type of SiC epitaxy needs. From serial production of low defect epi for Schottky's and MOSFET's, to R&D prototyping of thick epi with our unique buffer technology for future bipolar devices like IGBT's", says Christian Vieider, CEO of Ascatron.

Also Per Zellman, acting CEO of Norstel, underlines the strengths of a complete offering and adds that "We see the cooperation with Ascatron as a natural step to further utilize our capabilities in SiC epitaxy and to increase our market reach. The companies have complementary capabilities and we are already cooperating successfully in projects like the EU project SPEED for new generations of high-power semiconductor devices."

The new constellation is presently able to provide SiC epitaxial layers with both n- and p-doping up to 250 µm thickness on wafers with diameters up to 100 mm. Also 150 mm wafers will be supported within short.

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**About Ascatron**

Ascatron is specializing on silicon carbide (SiC) epitaxial material and device design solutions of SiC semiconductor devices. With our 3DSiC® technology we provide the complete doping structure based on epitaxy, enabling material quality and device performance unattainable through current methods. Our focus is on fast delivery of custom designed epitaxy wafers in small series for market verification and ramp up to large volume production in accordance with the customer needs. To support customer product development we offer the complete fabrication of device wafers and technology licensing. Ascatron started the operation in 2011 as a spin-off from the research institute Acreo, and has 10 employees in Sweden.

[www.ascatron.com](http://www.ascatron.com)

**About Norstel**

Norstel AB is manufacturing conductive and semi-insulating silicon carbide wafers and single-crystal epitaxial layers deposited by CVD. 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 like epitaxy, characterization and polishing for high performance semiconductors used in Power and HF Electronics. Applications 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.

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