

FOR IMMEDIATE DISTRIBUTION

North Carolina State University Orders Ion Beam Etching Equipment from scia Systems

The scia Mill 200 system provides highly precise surface structuring of thin films with enhanced selectivity

Chemnitz, Germany, Sept 17, 2024—scia Systems GmbH, an industry leader in advanced ion beam and plasma process equipment for microelectronics, MEMS, and precision optics industries, today announced that the North Carolina State University (NCSU) has purchased a scia Mill 200 system. The system will be used to process wide bandgap semiconductor materials such as Silicon Carbide and Gallium Nitride to enable power electronic devices that operate at much higher voltages, frequencies, and temperatures and more efficiently. The scia Mill 200 will be installed in the newly established regional hub, called “Commercial Leap Ahead for Wide Bandgap Semiconductors” (CLAWS).

“We are pleased that the NCSU is using ion beam equipment from scia Systems in its newly built regional innovation hub. Due to its fully reactive gas compatibility, the scia Mill 200 is the right choice to enable reactive etching processes with enhanced selectivity and rate in wide bandgap semiconductor materials” stated Dr. Michael Zeuner, CEO of scia Systems.

Precise Processing of Complex Surface Structures with scia Mill 200

Ion Beam Etching (IBE) is a highly precise method for surface processing. A broad beam of positively charged ions is accelerated onto a substrate. The ions transfer their kinetic energy to the surface atoms, causing them to be ejected, thus removing the material. Special forms of IBE are reactive ion beam etching (RIBE) and chemically assisting ion beam etching (CAIBE), where reactive gases are used to increase selectivity, influence trench angles, or enhance etch rates.

The scia Mill 200 provides high-precision etching of complex multilayer materials with excellent uniformity for wafer sizes up to 200 mm. Typical applications are 2D and 3D structuring of magnetic memory (MRAM), sensors, MEMS, and compound semiconductors.

More information on the scia Mill 200 system can be found at <https://www.scia-systems.com/products/ion-beam-etching/scia-mill-200>.

Pictures



The scia Mill 200 provides high-precise surface structuring of thin film and semiconductor materials using ion beam etching.

About scia Systems GmbH

Founded in 2013, scia Systems is the technology leader in thin-film process equipment based on advanced ion beam and plasma technologies. The systems are used for coating, etching, and cleaning processes with nanometer accuracy and have been successfully implemented in various high-tech industries worldwide, including microelectronics, MEMS, and precision optics industries. For more information, visit the company's website at www.scia-systems.com.

Contact

scia Systems GmbH

Mandy Gebhardt
Head of Marketing

Tel.: +49 371 33561 322

E-Mail: m.gebhardt@scia-systems.com