Lam Research Corporation Advances Dielectric Etch Capabilities With Launch Of Exelan® High Performance

Lam Research Corporation Advances Dielectric Etch Capabilities With Launch Of Exelan® High Performance FREMONT, Calif., July 9, 2001 - Lam Research Corporation (Nasdaq: LRCX) today released the new 200 mm Alliance®-based Exelan® High Performance dielectric etch system. The new system targets sub-130 nm geometries for advanced applications such as low k dual damascene, HARC (high aspect ratio contact), and SAC (self-aligned contact) etch. For the Exelan High Performance system, the Exelan chamber has been modified to etch significantly higher aspect ratios and smaller geometries. Exelan is the industry's only dielectric etch system with process flexibility for repeatable high aspect ratio and fully integrated oxide and low k dual damascene etching.

"IMEC has been partnering with Lam to optimize many processes in the Exelan chamber. The chamber's process flexibility has proved important for IMEC's ongoing dielectric etch development work, particularly for dual damascene processes, where a variety of process schemes have been explored. For advanced low k integration, we currently employ Exelan High Performance to etch SiOC low k materials with integrated barrier removal and are transitioning to ultra low k materials in the k » 2.2 range," according to Serge Vanhaelemeersch, head of the Advanced Deposition and Removal Technologies Group at IMEC in Belgium.

IMEC is an industry leader in developing advanced low k process modules, proving integration schemes in a world-class pilot line.

The Exelan family employs Lam's production-proven Dual Frequency Confined™ (DFC) technology-the industry's only fully confined dual-frequency plasma source technology. Confining the plasma provides several key benefits: it enables damage-free processing, allows Clean Mode™ operation without chamber wall contamination, and retains a consistent RF path inside the chamber for industry-leading stability and repeatability. Lam's DFC technology also enables integrated processing, where multiple process steps are performed in the same chamber, improving process control and reducing capital costs. Combined, these advantages provide improved yield and productivity and a lower cost of ownership.

According to Nick Bright, Lam's vice president and general manager, Etch Products Group, "The importance of these benefits to customers is validated by the extensive installed base of DFC chambers worldwide. Now, with the advanced capabilities of Exelan High Performance, customers at multiple sites are achieving excellent performance on low k dual damascene, HARC, and SAC etch at the 130 nm technology node. Customers from around the world-including foundries and a range of integrated device manufacturers-are choosing Exelan High Performance because of its extensive process portfolio."

"Exelan High Performance not only offers next-generation capability but also the assurance of proven production worthiness. As IC manufacturers transition to volume production on these advanced processes, their focus will shift from technical capability to productivity. Exelan is well-positioned to address this transition with its advanced technology, in situ process capability, and extensive production experience. In addition, Exelan's technology has already been scaled to 300 mm for our 2300™ etch series, enabling customers to achieve straightforward 300 mm process scaling when they are ready," Bright continued.

This press release contains certain forward-looking statements which are subject to the Safe Harbor provisions created by the Private Securities Litigation Reform Act of 1995. Such forward-looking statements relate to process performance, operational performance and the ability to move processes from one machine or facility to another. Such statements are based on current expectations and are subject to risks, uncertainties, and changes in condition, significance, value and effect including those risks detailed in documents filed with the Securities and Exchange Commission, including specifically the report on Form 10-K for the year ended June 25, 2000, and the Form 10-Q for the quarter ended March 25, 2001 which could cause actual results to vary from expectations. The company undertakes no obligation to update the information in this Press Release.

Lam Research Corporation is a leading supplier of wafer fabrication equipment and services to the world's semiconductor industry. Lam's common stock trades on the Nasdaq National Market under the symbol LRCX. The Company's World Wide Web address is http://www.lamrc.com.

https://newsroom.lamresearch.com/2001-07-09-Lam-Research-Corporation-Advances-Dielectric-Etch-Capabilities-With-Launch-Of-Exelan-R-High-Performance