ACM Research Broadens Furnace Semiconductor Equipment Portfolio to Support Additional Logic, Memory and Power Device Manufacturing Processes

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Highly configurable dry processing system adds un-doped and doped poly LPCVD, high-temperature oxidation and annealing capabilities

FREMONT, Calif., March 17, 2021 (GLOBE NEWSWIRE) -- Today from SEMICON China, ACM Research, Inc. (ACM) (NASDAQ: ACMR), a leading supplier of wafer processing solutions for semiconductor and advanced wafer-level packaging (WLP) applications, announced a significant expansion of its growing 300mm Ultra Fn furnace dry processing tool portfolio, adding the following semiconductor manufacturing processes: un-doped poly deposition, doped poly deposition, gate oxide deposition, high-temperature oxidation and high-temperature annealing. ACM will be demonstrating its technologies in booth #3659 at SEMICON China 2021, being held in Shanghai's SNIEC on March 17-19.

The new capabilities build on the configurable system's previously announced oxide, silicon nitride (SiN) low-pressure chemical vapor deposition (LPCVD), and alloy annealing process capabilities. ACM has delivered multiple tools supporting these new applications, and expects to deliver additional units in the first half of 2021.

"Our strategy has consistently been to identify markets and applications with high growth potential within the semiconductor manufacturing industry and develop leading-edge technology in collaboration with our customers to address them," said David Wang, Chief Executive Officer and President of ACM. We are now able to perform more than 80% of batch thermal processes, including LPCVD processes for SiN, HTO, un-doped poly and doped poly deposition, gate oxide deposition process, ultra-high temperature oxidizing and annealing processes up to 1200°C. The rapid adoption of this new product line further validates our collaborative strategy."

The Ultra Fn platform was designed from the ground up to meet customers' best-in-class requirements, as devices continue to shrink and increase in complexity. Because today's devices are designed with complex, fine geometries, providing consistent and stable heat control is paramount in maintaining wafer integrity. To meet these demands, the Ultra Fn heater features a proprietary control algorithm, which provides stable temperature control.

ACM adapted its highly configurable Ultra Fn tool with only a few changes to the components and layout to address these new applications. Designed as a configurable platform that shares common parts with ACM's existing oxide silicon nitride system, it reduces overall costs. The platform's configurability also enables process kits to be quickly changed to meet customers' process requirements.

ACM's delivered its first SiN LPCVD to a key logic customer's manufacturing facility in early 2020, where its capability for mass production was validated. ACM also delivered its furnace for alloy anneal process customized with micro-Torr level ultra-high vacuum functionality to a power device customer's manufacturing facility at the end of 2020, where its capability has been proven for production. The new furnace processes are undergoing development and testing at customer sites, with performance expected to be demonstrated in 2021.

Contact ACM to learn more about the Ultra Fn furnace portfolio and supported applications.

About ACM Research, Inc.
ACM develops, manufactures and sells semiconductor process equipment for single-wafer or batch wet cleaning, electroplating, stress-free polishing and thermal processes that are critical to advanced semiconductor device manufacturing as well as wafer-level packaging. The company is committed to delivering customized, high-performance, cost-effective process solutions that semiconductor manufacturers can use in numerous manufacturing steps to improve productivity and product yield.

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