Aurora Solar Technologies Announces Heterojunction Solar Cell Quality Measurement System in Advance of Major Exhibition in China

written by Raj Shah | May 23, 2018

May 23, 2018 (Source) – Earlier this year, Aurora Solar Technologies Inc. (TSXV: ACU) (OTC Pink: AACTF) (FSE: A82) ("**Aurora**") ("**Company**") announced its decision to develop a Decima measurement system for heterojunction technology (HJT) solar cell applications in partnership with SERIS, a leading research organization located in Singapore. These joint efforts enabled the Company to validate the use of high-speed infrared technology as a game-changing method for measuring and controlling the quality of HJT solar cell structures. The Company is now pleased to announce the introduction of the DM-121 and DM-321 measurement systems for HJT cell TCO layer quality control. These novel products, which measure both TCO sheet resistance and layer thickness at full production speeds are ideally suited for automatic quality control applications in the rapidly developing HJT cell manufacturing market.

To produce the electrical structure of a HJT cell, it is necessary to apply thin layers of amorphous silicon on both sides of a crystalline silicon wafer as well as transparent, conductive oxide layers (TCO) to absorb the generated power. The

TCOs are the conduits allowing electrical current to flow from the active portion of the cell to the metal contacts. Optimizing and controlling the uniformity of the TCO layers during cell manufacturing is crucial to maximizing the power and yield of the HJT cells. The DM-121 and DM-321 systems measure the front and rear TCO sheet resistances and thicknesses on silicon photovoltaic (PV) wafers. Both sheet resistance and thickness are measured at a series of discrete points along each wafer. Aurora's patented non-contact infrared measurement technology is used in these products and provides accurate real-time measurements for process control and optimization.

The systems consist of a specialized pair of DM (formerly Decima) series measurement heads, designed as a unit to fit above and below a wafer conveyor. They measure up to 100 percent of wafers at full production line speed and can connect to Aurora's Visualize™ quality control system for integration of measurements with process tools to provide real-time 3D visualization of intra-tool dynamics, both spatially and by batch. This enables optimization and control of PVD or RPD processes for maximum production line yield and throughput.

The DM-121 and DM-321 products are available now, and can be seen at the Shanghai New Energy Conference Exhibition (SNEC), May 28-30, booth number E3-653.

About Aurora Solar Technologies:

Aurora's mission is to deliver exceptional results to the photovoltaic industry through measurement, visualization and control of critical processes during solar cell manufacturing. We measure and map the results of critical cell fabrication processes, providing real-time visualization of material properties, cell parameters and production tool performance. Our products provide process engineers and production-line operators

with the means to rapidly detect, analyze and correct process excursions, limit variations, and optimize processes, thereby increasing yield and profits. We are creating the quality control standard for the global photovoltaic manufacturing industry. For more information, Aurora's website is located at www.aurorasolartech.com.

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