Aurora Solar Adds Heterojunction Cell Characterization to Decima Gemini Family

written by Raj Shah | February 16, 2018





February 16, 2018 (Source) — Aurora Solar Technologies Inc. ("Aurora") ("Company") (TSX.V:ACU) (OTCBB:AACTF) (FSE:A82) is pleased to provide an update on the further development of its Decima Gemini™ infrared measurement technology for

applications in the rapidly developing heterojunction (HJT) cell manufacturing market.

HJT is an ultra high-efficiency solar cell design pioneered by Japan's Panasonic Corp., who is now also partnered with Tesla Inc. for solar products. According to Solar Media Ltd., HJT production capacity is expected to increase by 20 percent this year.

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.

Aurora is pleased to report that the company has now experimentally validated the capability of its Decima Gemini infrared measurement technology to measure critical parameters of TCO layers that can vary during production. This capability, combined with Aurora's Veritas software, can assist in design verification, production line ramp-up and characterizing the sources of variation in the TCO layer that impact the final performance of the cell.

"Our Decima infrared measurement technology is very versatile in its potential applications, and this is an excellent example of that versatility," stated Gordon Deans, Aurora's Chief Operating Officer. "Not only was this validation achieved with our existing field-proven technology, but we also understand from discussions with potential customers that no other viable measurement alternative exists at present."

An increasing number of HJT solar cell manufacturers have now expressed strong interest in using such a measurement capability in their R&D and manufacturing. The company is in the process of commercializing this capability. In this capacity, the Company will be making a presentation on techniques for measuring, analyzing and controlling production quality for advanced cell designs such as HJT at PV CellTech in Penang, Malaysia March 13-14 and will host a webinar for industry on March

6th (see https://register.gotowebinar.com/rt/8273658261876158210 to register for this technical event).

The Company also will be exhibiting at the International Photovoltaic Power Generation Conference and Exhibit in Shanghai, China May 28-30, 2018. Finally, Aurora's Steve McDonald, Vice President, Application Engineering was recently interviewed by the solar industry's media group PV Tech. The interview is available

at https://www.pv-tech.org/interviews/pv-talk-adopting-inline-process-tools-to-maximize-fab-operations.

About Aurora Solar Technologies:

Aurora's mission is to deliver exceptional results to the photovoltaic industry through measurement 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 and true production tool performance. Our products provide process engineers and production-line operators with the means to rapidly detect and correct process excursions, material faults, limit variations, and optimize processes, thereby eliminating yield-reducing and profit-killing product variation.

We are creating the standard for quality control systems for the global photovoltaic industry.

Headquartered in North Vancouver, Canada, and founded by experienced leaders in process measurement, semiconductor manufacturing and industrial automation, the Company's shares are listed on the TSX Venture Exchange and trade under the symbol "ACU". The Company was formerly "ACT Aurora Control Technologies". For more information, Aurora's website is located at www.aurorasolartech.com.

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