

June 13, 2012

Kaneka Developed Next-Generation Heterojunction Solar Cells in Collaboration with imec

– June 12, 2012 - Kaneka and imec report a large area (6inch semi-square) heterojunction silicon solar cell with a certified power conversion efficiency of 22.68%(*) with an electroplated copper contact grid. This breakthrough is achieved at Solar cell Lab at Kaneka Osaka, using heterojunction technology with Kaneka's copper electroplating technology which is based on imec's state-of-the-art copper electroplating knowhow. This development will be presented at Kaneka booth at Intersolar Europe 2012 Munich.

To realize the top grid electrode in heterojunction silicon solar cells, silver screen printing is the preferred technology in the PV (photovoltaic) industry. However, a drawback of this technology is the difficulty to lower resistivity and to thin the metal line in silver screen printed contacts. As a result, efficiencies remain below optimal and cost remains relatively high. Replacing the screen-printed silver with electroplated copper overcomes the disadvantages of silver screen printing, enabling higher efficiencies and reduced fabrication costs.

Kaneka's Photovoltaics European Laboratory is located at the imec campus in Leuven (Belgium), with access to imec's state-of-the-art PV infrastructure. The collaboration between Kaneka and imec has helped the improvement of Kaneka's thin-film solar cells and the development of next-generation heterojunction cells.

Kaneka Japan has been working intensively on this R&D towards mass production of next generation heterojunction solar cell.

(*) Certified by Fraunhofer ISE CaLab

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About Kaneka

Kaneka Corporation was established in 1949 as a spin-off from the Kanegafuchi Spinning Co., Ltd. It is headquartered in Osaka, Japan and employs about 7,300 people worldwide (including consolidated subsidiaries). Kaneka's activities span a broad spectrum of markets ranging from photovoltaics, plastics, EPS resins, chemicals and foodstuffs to pharmaceuticals, medical devices, electrical and electronic materials and synthetic fibers. Kaneka has subsidiaries in Belgium, the United States, Singapore, Malaysia, China, Australia and Vietnam.

Further information on Kaneka can be found at <http://www.kaneka.co.jp/kaneka-e/>

About imec

Imec performs world-leading research in nanoelectronics. Imec leverages its scientific knowledge with the innovative power of its global partnerships in ICT, healthcare and energy. Imec delivers industry-relevant technology solutions. In a unique high-tech environment, its international top talent is committed to providing the building blocks for a better life in a sustainable society. Imec is headquartered in Leuven, Belgium, and has offices in Belgium, the Netherlands, Taiwan, US, China, India and Japan. Its staff of close to 2,000 people includes more than 600 industrial residents and guest researchers. In 2011, imec's revenue (P&L) was about 300 million euro. Further information on imec can be found at www.imec.be.

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