

## Press Release

Heraeus to Showcase New Pastes for PERC and HJT Solar Cells at Intersolar/PVSEC Event.

Latest families of pastes designed to meet high efficiency solar cell requirements.

HANAU, GERMANY- June 13, 2016- Heraeus Photovoltaics, the worldwide leading supplier of metallization solutions to the PV industry, will be showcasing its newest metallization pastes at the intersolar/PVSEC trade show and R&D conference, which will take place June 22-24, 2016, in Munich, Germany. Exhibiting in Hall 2, Booth 440, Heraeus will be promoting its newest metallization pastes for PERC-solar cells as well as for low-temperature heterojunction and organic solar cell applications.

The new PERC-products are part of a PERC package. It includes the SOL9631, a low-temperature front-side paste and the SOL326, a low-activity back-side silver tabbing paste. The SOL9631 paste can be fired at low temperatures, making it specifically suitable for PERC solar cells. The densified microstructure of the fired finger, including the Ag-Silicon interface, enhances adhesion, grid resistivity and solderability and reduces light-introduced-degradation (LID) loss to be similar as a normal P-type module.

The unique properties of the SOL326 series provide less firethrough/penetration into the passivation and better protects the emitter during the metallization process. The SOL326 series provides greater performance in key areas including cell efficiencies over 20%, higher aged adhesion, improved Voc and increased module reliability.

Both products feature a unique glass chemistry, exclusively developed and produced by Heraeus. They enable customers and partners of Heraeus to produce PERC cells with significant higher cell efficiency, improved adhesion and enhanced module reliability.

For emerging solar cell architectures of third-generation PV Heraeus markets the new SOL500 series, formulated for the processing of solar cell types which cannot withstand high firing temperatures. The SOL560 is designed for the curing temperature range of less than 200 °C for heterojunction solar cells, the SOL530 accommodates the 125-135°C range required in the production of organic solar cells. Both pastes show an excellent adhesion on ITO or other TCO materials and provide PV cell manufacturers with improved printability and adhesion, excellent line conductivity and minimal pinholes.

## Note to the editors:

Heraeus offers interview opportunities with Andreas Liebheit, President of Heraeus Photovoltaics, at the intersolar. Please contact the media contact listed below for interview arrangements.



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About the Heraeus Photovoltaics Global Business Unit
The Heraeus Photovoltaics Business Unit is an industry leading developer
and manufacturer of silver metallization pastes for the photovoltaic industry.
For over 40 years, Heraeus has built a reputation of innovation, extensive
research and new product development in thick film technologies for some
of the most prominent companies within a variety of industries. In the field
of photovoltaics, the Heraeus Photovoltaics Business Unit applies this
history and its innovative technology to offer metallization pastes for solar
cell applications. The Heraeus SOL Series of silver pastes is specially
formulated to provide higher efficiencies and wider processing windows,
resulting in better yields and higher output for cell manufacturers.

Heraeus, the technology group headquartered in Hanau, Germany, is a leading international family-owned company formed in 1851. With expertise, a focus on innovations, operational excellence and an entrepreneurial leadership, we strive to continuously improve our business performance. We create high-quality solutions for our clients and strengthen their competitiveness in the long term by combining material expertise with technological know-how. Our ideas are focused on themes such as the environment, energy, health, mobility and industrial applications. Our portfolio ranges from components to coordinated material systems which are used in a wide variety of industries, including the steel, electronics, chemical, automotive and telecommunications industries.

In the 2015 financial year, Heraeus generated revenues without precious metals of €1.9 bn and a total revenue including precious metal of €12.9 bn . With approximately 12,500 employees worldwide in more than 100 subsidiaries in 38 countries, Heraeus holds a leading position in its global markets.

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