Heraeus

Trade Press Release

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Heraeus Continues to Invest in Research and Development for the Photovoltaics Industry

- **New products to be highlight at SNEC 2013**

The Heraeus Photovoltaics Business Unit, a leader in the development of metallization pastes for the photovoltaics industry, will be attending the SNEC 7th (2013) International Photovoltaic Power Generation Conference & Exhibition at May 14th to 16th, 2013. Heraeus will highlight their newest series of pastes for c-Si solar cells.

Though market growth has been modest over the past year, Heraeus continues to invest in research and development to provide cell manufacturers with industry leading products and service. Heraeus' R&D sites in Asia have been upgraded to modify and develop higher performing products, which improve efficiency and reduce c-Si cells' cost per watt. "We have the benefit of having several R&D labs worldwide, including three in Asia. This allows us to work autonomously on specific market needs, but exchange ideas to improve overall product performance worldwide," states Tobias Caspari, General Manager Asia, Photovoltaics Business Unit.

The Heraeus R&D teams also work closely with leading institutes and customers to advance c-Si technology and optimize paste performance. "Our goal is to develop industry leading pastes that will provide value to our customers. We invest in fundamental research to strengthen our competencies and work with our customers and institutes to incorporate our knowledge of pastes design to develop products that meet their processing needs. This is a repetitive process and the investment is substantial, but we are committed to the PV Industry, and we will continue to invest for the success of our customers" states Dr. Weiming Zhang, Vice President – Technology, Heraeus Photovoltaic Business Unit. "This interaction with customers and institutes has allowed Heraeus to focus on the development of pastes in R&D for advanced cells designs such as N-type and MWT cell designs that will surpass the performance of commercially available products once released."

To learn more about Heraeus' new products for advanced cell designs, visit us at this year's SNEC 7th (2013) International Photovoltaic Power Generation Conference & Exhibition, in Shanghai China at Hall: W3 Booth: 560. You can also go to www.pvsilverpaste.com for more information.

About the Heraeus Photovoltaics 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 precious metals and technology group headquartered in Hanau, Germany, is a global, private company with more than 160 years of tradition. Our fields of competence include precious metals, materials, and technologies, sensors, biomaterials, and medical products, as well as dental products, quartz glass, and specialty light sources. With product revenues of €4.8 billion and precious metal trading revenues of €21.3 billion, as well as more than 13,300 employees in over 120 subsidiaries worldwide, Heraeus holds a leading position in its global markets.

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