

Press release

SiTec GmbH Announces Innovative, Advanced Monosilane Process Technology:

- **Novel Redistribution Step Reduces Plant Energy Requirement by 30 %**

Burghausen, 24. Juni 2014 – SiTec GmbH today announced an innovative monosilane process technology that is expected to provide substantial energy savings compared to legacy processes. Marketed under the name “STAR™”, for a SiTec Applied Research product, the core innovation is applicable to both new and existing monosilane plants. STAR™ starts with metallurgic silicon and produces electronic-grade quality monosilane for polysilicon production and VSLI (very large-scale integration) quality monosilane for sale. SiTec offers proven monosilane plant designs exceeding 10,000 MTA (metric tonnes per annum) capacities. STAR’s novel attributes significantly reduce both electrical and thermal energy requirement while debottlenecking the monosilane distillation train. New plants will experience best-in-class on-stream time and reduced costs, and up to 20% greater productivity from similarly sized equipment compared to traditional plant designs, and up to 10% to 15% lower cash cost depending on geographic-dependent energy pricing. SiTec’s patent-pending STAR™ technology easily integrates into existing plants. Retrofitted plants will benefit by 20% greater capacity from existing redistribution and refining train equipment, reduced energy costs, and a 2 to 6 month payback period on retrofit investment. STAR’s unique drop-in technology enables uninterrupted production during the retrofit process. STAR™ is designed to produce both VLSI and high electronic grade monosilane.

STAR’s energy’ envelope is not only superior to legacy processes but equals or betters reactive distillation designs without the attendant risk because STAR™ uses proven technology.

"STAR™ is a direct result of SiTec’s continuing commitment to applied research and development and to monosilane feedstock technology in particular," says Dr. Josef Biedermann, Managing Director SiTec GmbH. "SiTec is dedicated to inventing and perfecting world-class polysilicon technologies tailored to industry needs at its hydrochlorination and monosilane research facility in Seattle, USA."

"We are very excited about our proprietary STAR™ process. We believe it brings tremendous value in use," says Mark Dassel, Executive Vice President Polysilicon Technology. "STAR™ greatly reduces energy consumption and is based on proven redistribution processes. SiTec is committed to bringing superior technologies to

the world-wide polysilicon industry. STAR™ is an important new addition to our company's full-spectrum polysilicon technologies.”

The company will provide additional detail on its new monosilane process at the “Silicon for the Chemical and Solar Industry” conference to be held in Trondheim, Norway, June 23 – 26, 2014.

About SiTec GmbH

SiTec GmbH is a leading company providing an Integrated Engineering and Technology Package along the value chain from producing polysilicon to ingots and wafers.

Our reliable, innovative and low energy consuming production technology guarantees competitive manufacturing cost for semiconductor grade and solar grade silicon. Our customers can rely on the world's most competitive polysilicon production technology.

SiTec's Research & Development Center in Seattle, USA with experts in science, technology and engineering, is driven by its vision to the lowest production cost and the highest quality polysilicon.

Our proven technology has been realized in numerous projects in China, South Korea, India, North America, Europe, CIS and Middle East.

SiTec GmbH
Gewerbepark Lindach A12
84489 Burghausen, Germany

Contact:

Steffen Mueller, Director Technical Marketing
Tel: +49 8677 8734-7634
E-Mail: info@centrotherm-sitec.de
www.sitec.centrotherm.de