

Press release

PSE AG presents new test stand for analysis of light-induced degradation in solar cells

Freiburg/ Cologne, December 3rd, 2012. At the 9th Photovoltaic Module Technology Workshop in Cologne, Germany PSE AG presented the newly developed test stand, Degratest Labtool. This innovative test stand determines the light induced degradation effect (LID effect) of silicon solar cells. The testing technology monitors and records degradation effects, and offers manufacturers and research institutions a fast and reliable tool for testing and developing solar cells.

Degratest Labtool comes with an electronically controlled metal halide lamp, which produces artificial light close to the sun's spectrum. The heating of the test area is realized via a high precision temperature controller and can be adjusted from 10°C to 220°. To determine the LID effect, the test stand first generates a defined initial state of the cells to be tested (annealing). Testers use the graphical user interface to select radiation intensity and temperature. The test stand records all important parameters such as radiation, temperature, measured voltage and temperature-corrected voltage during the test and instantly creates a graph of the results.

Degratest Labtool can simultaneously test up to four solar cells with a maximum size of 160x160mm²; this allows, for example, for simultaneous quality testing of different passivation layers, or for comparison of different silicon materials.

The test stand was developed by the International Solar Research Center (ISC) in Constance, Germany. Rudolf Harney, Director of the Department of Industrial Solar Cells at ISC Constance is very pleased: "At ISC, we are using this test stand round the clock. We are proud that, thanks to our cooperation with PSE AG, one of our product developments will soon be used by institutes and module manufacturers."

Link to spec sheet: http://www.pse.de/Degratest_Leaflet_low.pdf

About PSE AG

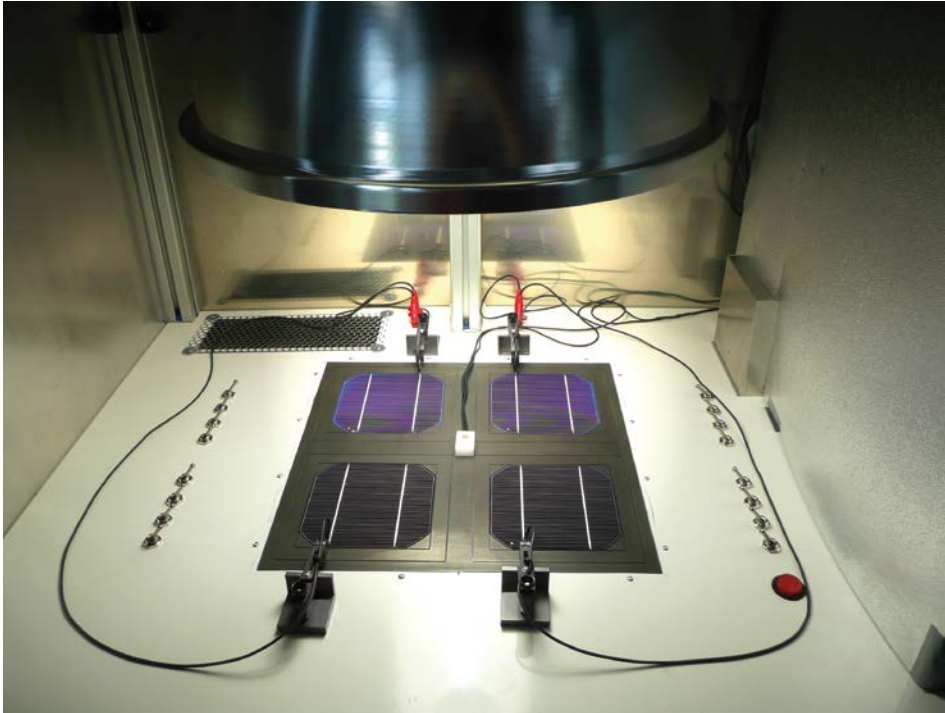
PSE AG provides highly specialized solar testing systems and solar consulting expertise to customers around the world. PSE Solar Test Stands are used by test labs and manufacturers for performance and durability measurements and certification to international standards. PSE Solar Consulting conducts rural electrification consulting and manages international research projects. PSE Conference Management organizes major scientific solar conferences.

PSE AG was established in 1999 as a spin-off company of the Fraunhofer Institute for Solar Energy Systems ISE and currently has a staff of 65.

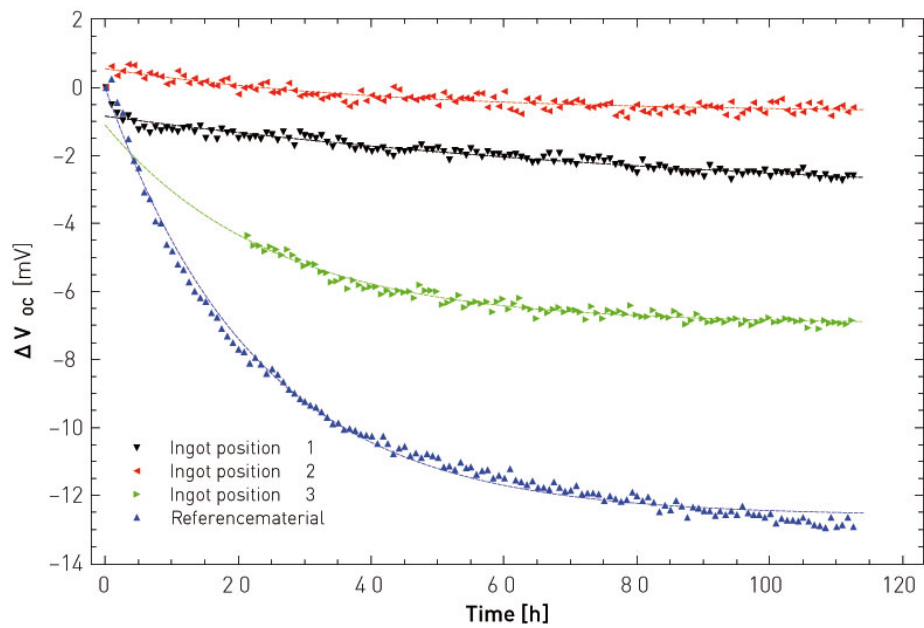
About ISC Constance

The Institute for Solar Research Constance focuses primarily on research and development of crystalline silicon solar cells, in close cooperation with solar cell equipment manufacturers and other companies in the field of photovoltaics. Industry cooperation and transfer of technologies are important parts of their business model. Their areas of research include wet chemistry, silicon feedstock characterization, metallization, surface passivation, and future solar cell concepts including characterization. They offer workshops for qualified professionals from the industry, as well as internships and research opportunities for bachelors, masters and doctoral candidates. In addition, ISC Constance has a Department of Development Cooperation, which promotes the spread of solar energy.

Press information and photo downloads can be found on the PSE website at: www.pse.de, section "News".



Degratest Labtool simultaneously testing four silicon solar cells



Differences in solar cell degradation, as determined by Degratest Labtool

Contact for editorial questions:

PSE AG
Beate Suppinger
Emmy-Noether-Strasse 2
79110 Freiburg
Germany

Tel: +49 761 479 14 56
beate.suppinger@pse.de