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7th International Conference on Crystalline Silicon Photovoltaics to be held in Freiburg on April 3-5, 2017

The Silicon PV – International Conference on Crystalline Silicon Photovoltaics is coming back to Freiburg where it began in 2011. The conference series was founded with the goal of offering an outstanding high-class scientific program on advanced technologies, materials and concepts for crystalline silicon solar cells and modules. This year, 370 participants from 25 countries have registered to attend. A special highlight of the program are the invited speakers: Prof Henry J Snath, whose talk "Perovskite on Silicon Tandem Cells" focuses on a new concept for increasing the efficiency of today's silicon solar cells; Dr. Kunta Yoshikawa, KANEKA Corporation, will present the company's world record efficiency for a monocrystalline silicon solar cell in his talk entitled "Exceeding Conversion Efficiency of 26% by Silicon Heterojunction Technology."

Each year the photovoltaics market has seen a cumulated annual growth of more than 30 percent over the past 15 years. At the same time the cost of PV modules decreased by more than 80 percent. In order to further reduce the levelized cost of solar electricity, it is necessary to transfer new technologies into industrial production, especially for crystalline silicon PV, the workhorse of the solar cell industry. Many scalable technologies are ready for the market, at the same time sustainability aspects as well as higher efficiencies are being addressed that will lead to cost reductions.

Conference topics

At the Silicon PV conference, international researchers come together to share and discuss current developments and upcoming trends. The conference covers short-, mid- and long-term issues in silicon photovoltaics. These include processing and characterization of multi- and mono-crystalline silicon, solar cells based on selective contacts and advanced interconnection and encapsulation technologies as well as crystalline silicon-based tandem solar cells shifting the efficiency limit beyond the single-junction. All of these topics and more will be covered at the conference, following the successful format of the past years. A blind review process for abstract evaluation guarantees the high-level quality of the presentations. Plenary presentations and a one-day overlap with an n-PV workshop and many occasions for networking and exchange round up the event.

FRAUNHOFER INSTITUTE FOR SOLAR ENERGY SYSTEMS ISE

Highlights

“At this conference we will see a unique improvement in record efficiencies based on crystalline silicon in almost all relevant categories,” says Dr. Ralf Preu, Conference Chairman and Division Director PV Production Technology and Quality Assurance at Fraunhofer ISE. He adds: “The scientific community demonstrates the potential for further efficiency improvements at a rate of approximately 0.3-0.4% annually, similar to the rate experienced over the last 10+ years. Several of these improvements have been achieved by our institute, which makes it an extraordinary honor to host this conference in Freiburg.»

Several recent world record efficiencies are presented at this conference. Dr. Kunta Yoshikawa from the Japanese KANEKA Corporation will give a talk on KANEKA’s recently achieved 26% efficiency for a monocrystalline silicon solar cell based on heterojunction technology. The conference host Fraunhofer ISE, shortly before the conference, was able to take back the world record for multicrystalline silicon solar cells, with an efficiency of 21.9 % for an n-type cell based on the institute’s TOPCon technology. Since last November, the institute has again improved its record for a multi-junction solar cell based on silicon to now 31.3 % efficiency.

More information on the Silicon PV Conference:

www.siliconpv.com

www.npv-workshop.com

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