



4th International Conference on Silicon Photovoltaics, SiliconPV 2014

## Editorial to the Proceedings of the 4<sup>th</sup> International Conference on Crystalline Silicon Photovoltaics (SiliconPV 2014)



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Silicon photovoltaics can be seen as the workhorse for the worldwide introduction of solar electricity. Furthermore, due to the recent price reduction of PV modules, grid parity has been reached in most parts of the world. On the other hand, in laboratory and pilot line environments, cell efficiencies above 20% have been reached for different silicon-based cell concepts. The challenge of the PV community is to combine the two: high efficiencies at low cost in large volumes. Reduction in material consumption and the use of low-cost materials at cell- and module level while maintaining high efficiency and good reliability will be the key to reaching this goal. Therefore, innovative and emerging technologies to enable future cell- and module architectures are needed. With this it is expected that silicon photovoltaics can fulfil this role for many years.

With the SiliconPV conference series that started in 2011, a forum has been created at which process improvements and fundamental principles for crystalline Si technology are presented and discussed. The 2014 edition of SiliconPV was combined with the nPV workshop, a workshop in which the progress on n-type silicon photovoltaics was presented and discussed. Both events were organized adjacent to each other with one overlapping day.

The 4<sup>th</sup> edition of the SiliconPV conference took place in 's Hertogenbosch, the Netherlands, from March 25 to 27 2014 and was hosted by ECN. The focus was on the science and technology of advanced crystalline silicon solar cells and modules and the fundamental properties of the crystalline Si substrate as well as its influence on the device behavior. The conference was attended by more than 320 people from the global Si-PV community and led to intense interaction between R&D-groups of academic and industrial origin. This issue contains 121 manuscripts selected and peer reviewed by the scientific committee of SiliconPV 2014.

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