EU PVSEC 2010

VALENCIA, SPAIN SEPTEMBER 6–10, 2010

Applied Materials Oral Presentations

Thin Film

Date	Time	Title	Presenter	Number
Sept 7	15:15-16:45	*Large Area Thin Film Solar Modules with 10% Efficiency for Mass Production* Summary: This paper will highlight the individual process steps that Applied mastered to achieve >10% efficiency on Gen 5 1.1x1.3m2 modules. Leveraging our Tandem Junction baseline, combined with textured ZnO TCO, high reflectance back contact and an optical filter between the top and bottom cells resulted in improved light trapping, enabling thinner top and bottom cells.	Stephan Wieder	*3BO.11*
Sept 8	10:30-12:00	*Advanced Large Area TCO Production Line for Economic Manufacturing of High Efficiency a-Si/μc-Si Based Thin Film Modules* Summary: This paper will describe how Applied Materials has achieved stabilized module efficiencies of 10% and beyond in multi-crystalline thin film solar cells using the differentiated Applied TCO technology for performance optimization.	Dan Forster	*3CO.12.4*
	15:15-16:45	*Real-world performance advantage of SunFab thin film silicon modules over crystalline silicon* *Summary:* Real world data on thin film module performance is necessary to attract needed capital, and this paper will show initial results of SunFab thin film Si modules outperforming c-Si by 8% in multiple climates	Kevin Cunningham	*3CO.12.2*

c-Si

Date	Time	Title	Presenter	Number
Sept 8	13:30-15:00	*Development of Industrial High-Efficiency Back-Contact Czochralski-Silicon Solar Cells* Summary: This paper describes the development of a high-efficiency EWT back-contact cell using p-type Cz silicon and industrial processing techniques such as screen printing, high volume diffusions and PECVD.	James Gee	*3CO.3*
	15:15–16:45	*Development and Qualification of Monolitically Assembled Module for Back Contact PV Cells* Summary: This paper describes how back-contact silicon solar cells enable new concepts in module design and assembly, specifically monolithic module assembly (MMA) and the associated advantages	David Meaken	*4CO.19.6*

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