

Perovskite/ Si Tandem Solar Cells

Anita Ho-Baillie ^{A,B}

^A Australian Centre for Advanced Photovoltaics, University of New South Wales, Australia; ^B School of Engineering, Macquarie University, Sydney, Australia.

Abstract

Tandem solar cell is a promising approach for achieving high efficiencies for photovoltaics [1]. The challenge is to find an efficient, economical and stable technology for each cell stack to realize true savings in the system's levelised cost of energy. Nevertheless, substantial progress has been made in the demonstrations of two-terminal Si tandem cells. The advantage of 2-terminal over 4-terminal configuration is the reduced complexity in wiring and packaging [2]. The challenge lies in the integration of the cell stacks without electrical and optical losses.

I will talk about the perovskite/Si tandem cell structure that has been reported to be effective [3], efficient [4] and cost effective [5]. I will also talk about the use of downshifting material for improving the UV stability of perovskite/Si tandem [6]

References

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