

Low Temperature Solution Processed Solar Cell Based on ITO/PbS/PbS:Bi₃+ Heterojunction

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Abstract : PbS chemical bath heterojunction solar cells have shown significant improvements in performance. Here we demonstrate a solar cell based on the heterojunction formed between PbS layer and PbS:Bi₃+ thin films that are deposited via solution process at 40°C. The device achieve an current density of 4 mA/cm². The simple and low-cost deposition method of PbS:Bi₃+ films is promising for the fabrication.

Keywords : PbS doped, Bismuth, solar cell, thin films

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