

## Low Temperature Solution Processed Solar Cell Based on ITO/PbS/PbS:Bi<sub>3</sub><sup>+</sup> 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:Bi<sub>3</sub><sup>+</sup> thin films that are deposited via solution process at 40°C. The device achieve an current density of 4 mA/cm<sup>2</sup>. The simple and low-cost deposition method of PbS:Bi<sub>3</sub><sup>+</sup> films is promising for the fabrication.

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

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