

### Fabrication and characterization of CdTe deposited by close spaced sublimation for thin film solar cell applications

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Cadmium telluride (CdTe) thin film solar cells promises to be a low cost alternative to silicon applications due to its good properties. The close spaced sublimation (CSS) system is widely used for manufacture of the large scale thin film. Prior to deposit CdTe thin layer, cadmium sulfide (CdS) was grown on the fluorine thin oxide/aluminoborosilicate glass by chemical bath deposition. To investigate of relationship between the temperature and CdTe growth rate, we used different temperatures of substrate and source at same deposition time in CSS system. The scanning electron microscopy and atomic force microscopy was shown that surface and cross section morphology of CdTe films. To characterize structure of CdS and CdTe layers, we used X-ray diffraction. We confirm that, CdTe films are highly oriented when at high temperatures (> 600°C). Detail results and discussions will be presented.