

The effect of Cu flux variation on 3 stage process in the CIGS thin films

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We investigated physical properties of $\text{CuIn}_{1-x}\text{Ga}_x\text{Se}_2$ thin films grown by co-evaporator under various Cu environments. To study the effect of the Cu environments on absorber layer properties, thin films were fabricated under various reaction periods for different Cu flux on 2 stage process. We find the structural and electrical characteristics were affected by the reaction period on 2 stage process. The correlation between Cu flux variation on 2 stage process and solar cell performance was studied. The structural and electrical properties for various Cu flux were discussed.