

Numerical Simulation of CdTe thin films solar cells using AMPS

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Abstract : The numerical modeling and simulation is much needed for the realization of thin films solar cells before that device is in fact produced. In this study we have simulated a theoretical configuration based on SnO₂/CdS/CdTe/MoTe heterojunction solar cell under AM 1.5 illumination using the Analysis of Microelectronic and Photonic Structures (AMPS-1D) software tool in one dimension. The effect of physical properties variations is well thought-out on the evaluation of performance (VOC, JSC, FF and Efficiency) in CdTe thin films solar cells

Keywords : AMPS, Numerical simulation, CdTe, Thin-films solar cells