Abstract

The doping concentration and the thickness of different layers in the Hetero-junction with Intrinsic Thin layers solar cells (HIT) strongly influence their performances. We simulated, using AFORS-HET simulation software, the following layers structure: ZnO/a-Si:H(n)/a-Si:H(i)/c-Si(p)/a-Si:H(p)/Ag. We optimized the thicknesses and doping concentration of the emitter, buffer, absorber and the BSF layers.

**Index Terms**

Computer Science

Applied Sciences

**Keywords**

Simulation  AFORS-HET  performance  HIT silicon solar cell.