

The resistivity of tin selenide thin films prepared by encapsulated selenization

Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=20426347&lokasi=lokal>

Abstrak

Sn/Se/Sn stacked layers were thermally deposited onto glass substrates at subsequent thicknesses of 150/300/150 nm, and were then annealed in a carbon block under running argon gas at 200 C for three hours to form stoichiometric SnSe thin films. The dark electrical resistivity measurements were made using van der pauw method on the samples heated up between 297-443 K. The resistivities of SnSe thin films were found to change with the sample temperature. Essentially, the resistivity decreased exponentially from 1.77 cm to 0.32 cm with an increase of temperature. The corresponding activation energies were 0.11 eV for the 297-373 K range and 0.17 eV for the 373-433 K temperature range, respectively