

ANNEALING EFFECTS ON OPTICAL PROPERTIES OF CHEMICAL BATH DEPOSITION GROWN CADMIUM SELENIDE THIN FILMS

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Cadmium selenide (CdSe) thin films were deposited on a glass substrate using the chemical bath deposition method at 80 °C. The films were deposited using cadmium acetate as a Cd²⁺ ion source and sodium selenosulfate as a Se²⁻ ion source. The absorption edge was located at around 700 nm. Being CdSe a direct band gap semiconductor, the optical band gaps (E_g) of the as-deposited films were estimated from the α^2 versus $h\nu$ graphs. The CdSe films were annealed in a air atmosphere. The annealing temperatures were 100 °C, 200 °C, 300 °C, 400 °C, 500 °C and 600 °C with a 1h annealing time. The energy gap of the CdSe film decreases with annealing from 1.8 eV to 1.5 eV.