

Structural and morphological studies of cadmium sulfide nanostructures

Abstract

Cadmium sulfide (CdS) nanostructures were prepared with different spin coating speed 1000 and 3000 rpm and molarities of Cd:S to be 1.2 to 0.01 mol/L using sol-gel spin coating technique. It is found that the average grain size of CdS nanostructures deposited on glass substrates at 1000 and 3000 rpm is 43 to 4 nm respectively. The effect of grain size on the semiconductor properties are in agreement with experimental and theoretical data.

Keywords

Annealing temperature; CdS; Grain size; Sol-gel spin coating