

Optical constants of zinc sulfide films determined from transmittance measurements

S.M.A. Durrani*, A.M. Al-Shukri, A. Iob, E.E. Khawaja

Center for Applied Physical Sciences, Research Institute, King Fahd University of Petroleum and Minerals, Dhahran 31261, Saudi Arabia

Received 21 February 2000; received in revised form 7 June 2000; accepted 31 July 2000

Abstract

The optical constants of thermally evaporated thin films of ZnS have been determined by measurements of transmittance at normal incidence from two films of different thickness. A single-layer model has been successfully used for the films. The results are compared with those obtained earlier for thermally evaporated ZnS films using reflectance and transmittance measurements (where a two-layer model for a ZnS film was used). The advantage of the present method over the earlier one is the readily available measurement facilities. © 2000 Elsevier Science B.V. All rights reserved.

Keywords: Optical properties; Semiconductors; Tungsten bronzes
