

Abstract Submitted
for the MAR07 Meeting of
The American Physical Society

Synthesis and characterization of ZnS doped with metallic impurities. ESTELA GOMEZ, CIDS, Instituto de Ciencias, BUAP, ENRIQUE SANCHEZ-MORA, RUTILO SILVA, LETICIA PEREZ-HERNANDEZ, CESAR LOPEZ-GARCIA, VICTOR LOZADA-DIRCIO, Instituto de Fisica, BUAP, MATERIALES FOTOCATALITICOS Y FOTOCONDUCTIVOS TEAM — Zinc sulfide (ZnS) is a wide band gap and direct transition semiconductor. It is an important material for detection emission and modulation of visible and ultraviolet light, and for electroluminescent devices among other applications. The object of this work was to deposit by the sol-gel method/deep coating, ZnS, ZnS:Mn and ZnS:Sm films (5 coatings) on glass substrate. The samples were characterized to study the surface morphology, composition and some optical properties. SEM micrographs show a porous surface morphology with agglomerate type defects. FTIR spectra show the presence of surface O-H and S-O groups. By AES it was determined the composition of the films, and UV-Vis spectra confirmed the ZnS compound formation. This work has been partially supported by VIEP-BUAP, Project No. 11/EXC/06/G.

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Date submitted: 02 Dec 2006

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