

FT-IR and FT-Raman Spectra of SnS Film Deposited by Chemical Bath Deposition Method

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SnS semiconductor films using as a absorber layer for solar cells have been deposited onto microscope slides by chemical bath deposition method at room temperature. The crystal structure of the sample has been determined by using X-ray diffraction. X-ray diffraction pattern of the SnS film is given in Fig. 1. It showed that the sample was polycrystalline with orthorhombic structure. FT-IR spectrum of the sample has been investigated in 4000-400 cm^{-1} region. FT-Raman spectrum of the sample is given in Fig. 2. It can be seen that six Raman peaks are clearly observed at 970.14, 609.34, 303.90, 239.23, 106.47 and 64.32 cm^{-1} for SnS.

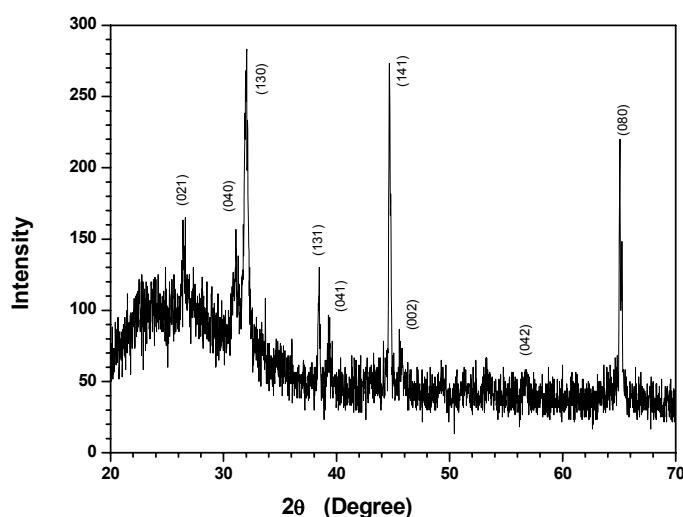


Fig. 1: X-ray diffraction of the SnS sample.

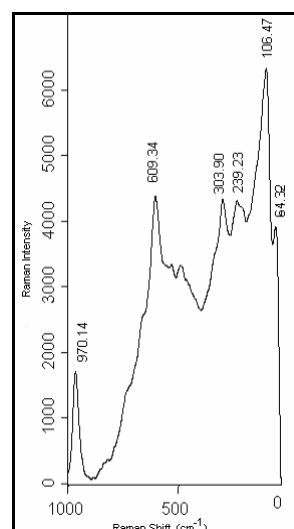


Fig. 2: FT-Raman spectrum of the SnS sample.

[1] A. Tanusevski, *Semicond. Sci. Technol.* 18 (2003) 501-505.

[2] X.L. Gou, J. Chen, P.W. Shen, *Matter Chem. and Phys.* 93 (2005) 557-566.