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Elaboration and Characterization of Tin Sulfide Thin Films Prepared by Spray Ultrasonic

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Abstract : Hexagonal tin disulfide (SnS2) films were deposited by spray ultrasonic technique on glass substrates at different experimental conditions. The effect of deposition time (2, 4, 6, and 7 min) on different properties of SnS2 thin films was investigated by XRD and UV spectroscopy visible spectrum. X-ray diffraction study detected the preferential orientation growth of SnS2 compound having structure along (001) plane increased with the deposition time. The results of UV spectroscopy visible spectrum showed that films deposited at 4 min have high transmittance, up to 60%, in the visible region.

Keywords : structural and optical properties, tin sulfide, thin films, ultrasonic spray
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