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## Structural and optical characterizations of thin organic films of thioindigo

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We report on the structural and optical properties of the nanorods available in thermally evaporated thin films of thioindigo (TI). The structural features are investigated using X-ray diffraction, transmission electron microscopy and Fourier-transform infrared spectroscopy techniques. The optical constants of as-deposited thin TI films are determined in the wavelength region 200-2500 nm, using spectrophotometric measurements for the nearly normal light incidence. The type of optical transitions for the TI films is ascertained from the dispersion of their absorption coefficient. The real part of the refractive index in the region of optical transparency is analyzed basing on single-oscillator and Drude models. The third order nonlinear susceptibility is obtained from the single-oscillator model and the Miller's rule.

### Biography

Dr. Najla Khusayfan has completed her PhD from King Abdulaziz University (KAU) and Postdoctoral studies from same University. She has published more than 10 papers in reputed journals and has been serving as an associate professor in King Abdulaziz university. She also attended and participated in many National and International conferences.

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