Facile Synthesis and Characterization of CuInS₂ nanoparticles

CuInS₂ nanoparticles are synthesized by a colloidal route used the ultrasonic. CuCl and InCl₃ used as precursors are solved in ethanol, S is solved in ethylenediamine, respectively. And they are mixed and reacted by ultrasonic. Synthesized particles are washed as methanol and centrifugal separation and annealed at 400 °C at N₂ atmosphere for 30 min. The particles characterized by Scanning Electronic Microscopy (SEM), Transmission Electronic Microscopy (TEM), Photoluminescence spectrometer (PL), X–Ray diffractometer (XRD), and Inductively Coupled Plasma (ICP).

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