

Synthesis of highly pure single crystalline SnSe nanostructures by thermal evaporation and condensation route

Abstract :

Here we report the synthesis of highly pure single crystalline tin selenide (SnSe) nanospheres by pretreatment of precursors with aqueous ammonia. In this work we have demonstrated that aqueous ammonia not only controls the preferred growth orientation but also controls the morphology of SnSe. Chemical vapor deposition technique was used for the growth of SnSe nanostructures. The optical properties were studied using UV-vis-NIR spectroscopy and Photoluminescence (PL) spectrum.