

## Synthesis of CdS Nanocomposite using Dendrimer and Its Application

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The preparation of dendrimer-encapsulated CdS quantum dots and their optical properties were studied. CdS quantum dots were synthesized by ionic reduction method. The CdS quantum dots have a weak broad emission ranging from 350 to 550nm. It have the color of clear or tint. Under UV light, all of the solutions have their own color according to solvent, respectively. Their characters could be applied to a biological sensor area. The optical properties and photoluminescence characteristics were identified by UV-Vis, UV-transiluminator and fluorescence spectroscopy. The gold thin film was coated on the glass substrate by E-beam and dendrimer-encapsulated CdS quantum dots was arranged on the gold thin film. Property of surface was modified at the result of reforming. The feature of the modifying surface was confirmed by FT-IR spectroscopy, contact angle and XRD.