

PHOTOSTABILITY OF CDSE QUANTUM DOTS DISPERSED IN AQUEOUS SOLUTION

Chu Viet Ha, Tran Anh Duc, Tran Quang Huy, Duong Thi Lan, Le Tien Ha and Vu Thi Kim Lien,

TÓM TẮT:

Normal 0 false false false MicrosoftInternetExplorer4

The CdSe quantum dots have been synthesized via wet chemical method using citrate as surfactant agent. The prepared quantum dots are mono – dispersed in aqueous solution with the size varying from 3.5 to 10 nm. The investigation of photoluminescence emission properties shows a photostability of the quantum dots in different pH environment. The photostability also has been examined by observing the evolution of fluorescence spectra and quantum yield with storing time. The results show that the CdSe quantum dots have high photostability which is almost unchanged after many months, and promise to be suitable for biolabeling.