عنوان مقاله:

Amino Acide-Mediated Green Synthesis of CuS Nanoparticles under sonochemical process

محل انتشار:

اولین کنفرانس ملی شیمی کاربردی و نانوشیمی (سال: 1397)

تعداد صفحات اصل مقاله: 3

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خلاصه مقاله:

Using amino-acid arginine as chelating agent, CuS nanoparticles have been synthesized by sonochemical method. The arginine can captures the Cu ions from the solution, and prevents the growth of the CuS nanoparticles. The deviation in the linear relation in between cube of radius of nanoparticles and ultrasonic irradiation time confirms the growth of CuS nanoparticles occur via the diffusion process of the reactants as well as reaction at the surface of the crystallite. CuS nanoparticles synthesized using arginine as organic chelating agent have band gap of 2.5 eV and have great photoluminescence intensity with blue-shift to higher energy due to typical quantum confinement effect. .Produced nanoparticles were characterized by XRD and SEM. Images

کلمات کلیدی:

CuS Nanoparticles, sonochemical method, arginine