

### عنوان مقاله:

Fluorescence study on the interaction of bovine serum albumin with a novel CdS quantum dots coated by poly (acrylic acid) grafted onto starch

### محل انتشار:

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### نویسندگان:

Zari Hooshyar - *Department of Chemistry, Payame Noor University, Tehran, Iran*

Ghasem Rezanejade Bardajee - *Department of Chemistry, Payame Noor University, Tehran, Iran*

Fatemeh Emamjomeh Shahidi - *Department of Chemistry, Payame Noor University, Tehran, Iran*

### خلاصه مقاله:

Interactions between CdS quantum dots coated by poly (acrylic acid) grafted onto starch (CdS-PAA-g-starchQDs) and bovine serum albumin (BSA) were investigated. CdS-PAA-g-starch QDs were synthesized in aqueous solution and characterized by UV-vis and fluorescence spectrum. Fluorescence spectrum was used to detect the interactions between as-prepared CdS-PAA-g-starch QDs and protein molecules. The interaction parameters, including binding constant ( $K_a$ ), binding site number ( $n$ ) and quench constant ( $K_q$ ), were determined by fluorescence spectrum. The results obtained here analyze the biosafety of CdS QDs in terms of the biological behavior of biomolecules and could serve as a basis for the application of CdS QDs to bioscience.

### کلمات کلیدی:

Fluorescence quenching, BSA, Quantum dots, starch

### لینک ثابت مقاله در پایگاه سیویلیکا:

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