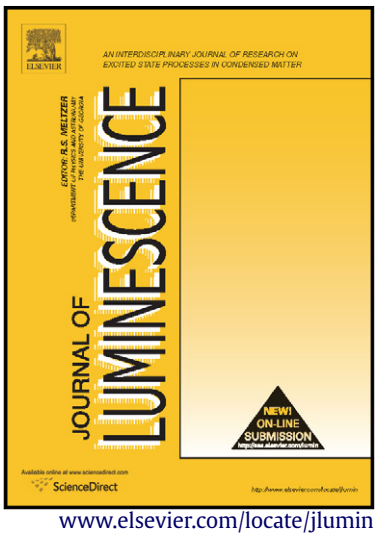

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Interaction of norfloxacin with bovine serum albumin studied by different spectrometric methods; displacement studies, molecular modeling and chemometrics approaches

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Abstract:

Serum albumins as major target proteins can bind to other ligands leading to alteration of its pharmacological properties. The mechanism of interaction between norfloxacin (NFLX) with bovine serum albumin (BSA) was investigated. Fuorescence quenching of serum albumin by this drug was found to be a static quenching process. The binding sites number, n, apparent binding constant, K, and thermodynamic parameters were calculated at different temperatures. The distance, r, between donor, BSA, and acceptor, NFLX, was calculated according to forster theory of non-radiation energy transfer. Also binding characteristics of NFLX with BSA together with its displacement from its binding site by kanamycin and effect of common metal ions on binding