Studies on the interactions between human serum albumin and *trans*-indazolium (bisindazole) tetrachlororuthenate (III).

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The interactions between HInd[$RuInd_2Cl_4$] and human serum albumin have been investigated through UV–Vis, circular dichroism (CD), fluorescence spectroscopy and the inductively coupled plasma-atomic emission spectroscopy (ICP(AES)) method. Binding of Ru(III)-indazole species to albumin has strong impact on protein structure and it influences considerably albumin binding of other molecules like warfarin, heme or metal ions. The metal complex–human serum albumin (HAS) interactions cause conformational changes with loss of helical stability of the protein and local perturbation in the domain IIA binding pocket. The relative fluorescence intensity of the ruthenium-bound HSA decreased, suggesting that perturbation around the Trp 214 residue took place. This was confirmed by the destabilization of the warfarin-binding site, which includes Trp 214, observed in the metal-bound HSA.

Słowa kluczowe

Ruthenium(III), Human serum albumin, Circular dichroism, Fluorescence quenching, Heme, Bilirubin binding

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