

Title: **Analytical characterization of indocyanine green absorption complexes (ICG) for potential biomedical applications**

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The optical properties of indocyanine green molecule, based on its intense fluorescent emission under the stimulus of infrared light, have in the last decade nurtured the development of numerous medical applications in the field of medical diagnosis and surgery. In this research work the capacity of adsorption and absorption of this molecule by different substrates or complexes will be studied by means of visible spectrophotometry and thin layer chromatography, using different techniques like precipitations and electronic spectroscopy in order to characterize the degree of union and its stability.

This molecule has been mixed with different compounds: Albumin macroaggregates, Albumin nanocolloids, Human serum albumin, Benonite, Titanium dioxide, Dextran, Tilmanocept and Tween – 20. The results are going to determinate the degree of bond that we will find between ICG and all the previous compounds.

Keywords: Indocyanine green, medical applications, thin layer chromatography, spectrophotometry.