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Selvaraj Naveenraj, Rajadurai Vijay Solomon, Ramalinga Viswanathan Mangalaraja, Ponnambalam Venuvanalingam, Abdullah M. Asiri, Sambandam Anandan



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**A MULTISPECTROSCOPIC AND MOLECULAR DOCKING  
INVESTIGATION OF THE BINDING INTERACTION BETWEEN  
SERUM ALBUMINS AND ACID ORANGE DYE**

*Selvaraj Naveenraj<sup>a,b</sup>, Rajadurai Vijay Solomon<sup>c</sup>, Ramalinga Viswanathan Mangalaraja<sup>a,\*</sup>,  
Ponnambalam Venuvanalingam<sup>c,§</sup>, Abdullah M. Asiri<sup>d</sup>, Sambandam Anandan<sup>b,\*\*</sup>*

<sup>a</sup> Advanced Ceramics and Nanotechnology Laboratory, Department of Materials Engineering, University of Concepcion, Concepcion, Chile.

<sup>b</sup> Nanomaterials & Solar Energy Conversion Lab, Department of Chemistry, National Institute of Technology, Tiruchirappalli 620015, India.

<sup>c</sup> School of Chemistry, Bharathidasan University, Tiruchirappalli 620024, India.

<sup>d</sup>The Center of Excellence for Advanced Materials Research, King Abdulaziz University, Jeddah 21413, P.O. Box 80203, Saudi Arabia.

Corresponding Authors

\**(R.V.M)* E-mail: mangal@udec.cl; Tel.: +56 41 2207389; fax: +56 41 2203391.

\*\**(S.A)* E-mail: sanand@nitt.edu, sanand99@yahoo.com; Tel.: +91 431 2503639; fax: +91 431 2500133.

<sup>§</sup>Special mention for the most senior Author (Professor Ponnambalam Venuvanalingam).

**Abstract**

The interaction of Acid Orange 10 (AO10) with bovine serum albumin (BSA) was investigated comparatively with that of human serum albumin (HSA) using multispectroscopic techniques for understanding their toxic mechanism. Further, density functional theory calculations and docking studies have been carried out to gain more insights into the nature of interactions existing between AO10 and serum albumins. The fluorescence results suggest that AO10 quenched the fluorescence of BSA through the combination of static and dynamic quenching mechanism. The same trend was followed in the interaction of

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