**Electronic Supplementary Information**

**Surface Patch Binding Induced Interaction of Anisotropic Nanoclays with Globular Plasma Proteins**

Kishan Das¹, Kamla Rawat²,³*, and H B Bohidar¹,²*

¹School of Physical Sciences, Jawaharlal Nehru University, New Delhi 110067, India

²Special Center for Nanosciences, Jawaharlal Nehru University, New Delhi 110067, India

³Inter University Accelerator Centre (IUAC), New Delhi 110067, India

![Figure S1](http://example.com/supplementary-figure1.png)

**Figure S1**: Absorbance spectra of proteins, (a) BSA (1.5 µM), (b) HSA (1.5 µM), (c) β-Lg (5.5 µM) in the absence and presence of MMT and (d) BSA (1.5 µM), (e) HSA (1.5 µM), (f) β-Lg (5.5 µM) in the absence and presence of laponite.
**Figure S2**: Emission spectra of proteins, (a) BSA (1.5 µM), (b) HSA (1.5 µM), (c) β-Lg (5.5 µM) in the absence and presence of MMT and (d) BSA (1.5 µM), (e) HSA (1.5 µM), (f) β-Lg (5.5 µM) in the absence and presence of laponite.
**Figure S3:** Time resolved fluorescence spectra of (a) BSA (1.5 µM), (b) HSA (1.5 µM), (c) β-Lg (5.5 µM) in the absence and presence of various concentration of MMT and (d) BSA (1.5 µM), (e) HSA (1.5 µM), (f) β-Lg (5.5 µM) in the absence and presence of various concentration of laponite recorded at room temperature (Excitation Wavelength = 290nm (LED)).

**Figure S4:** The synchronous fluorescence spectra at Δλ=15 nm (Tyrosine) of proteins, (a) BSA (1.5 µM), (b) HSA (1.5 µM), (c) β-Lg (5.5 µM) in the absence and presence of MMT and (d) BSA (1.5 µM), (e) HSA (1.5 µM), (f) β-Lg (5.5 µM) in the absence and presence of laponite.
Figure S5: The synchronous fluorescence spectra at Δλ=60 nm (Tryptophan) of proteins, (a) BSA (1.5 µM), (b) HSA (1.5 µM), (c) β-Lg (5.5 µM) in the absence and presence of MMT and (d) BSA (1.5 µM), (e) HSA (1.5 µM), (f) β-Lg (5.5 µM) in the absence and presence of laponite.
Figure S6: The CD spectra of proteins, (a) BSA (1.5 µM), (b) HSA (1.5 µM), (c) β-Lg (5.5 µM) in the absence and presence of MMT and (d) BSA (1.5 µM), (e) HSA (1.5 µM), (f) β-Lg (5.5 µM) in the absence and presence of laponite.