

## **Interaction study between ESIPT fluorescent lipophile-based benzazoles and BSA**

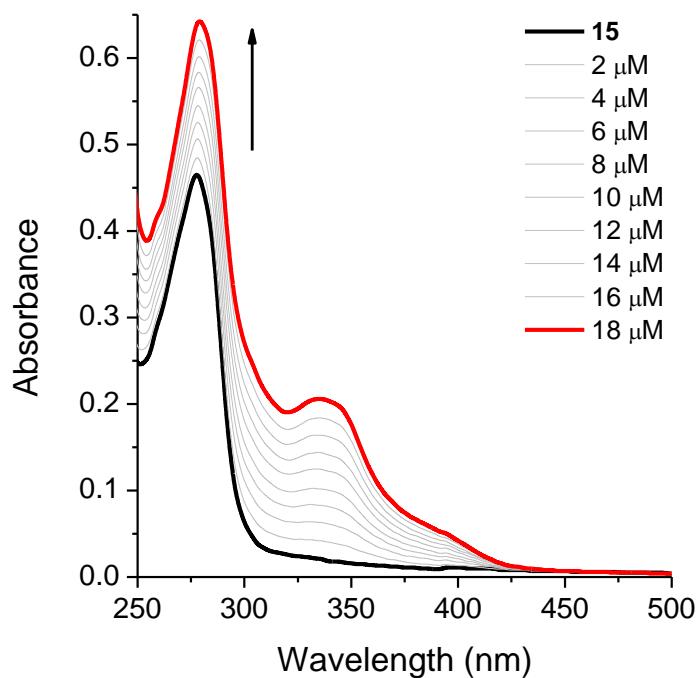
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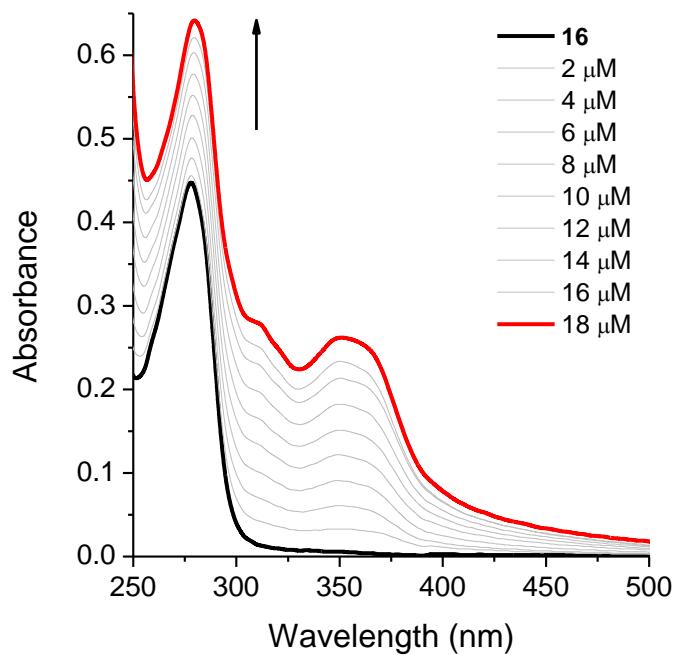
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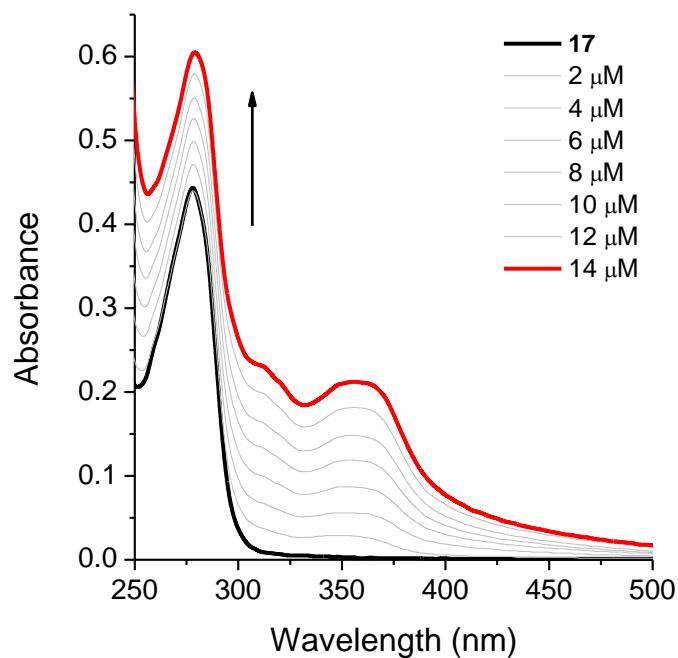
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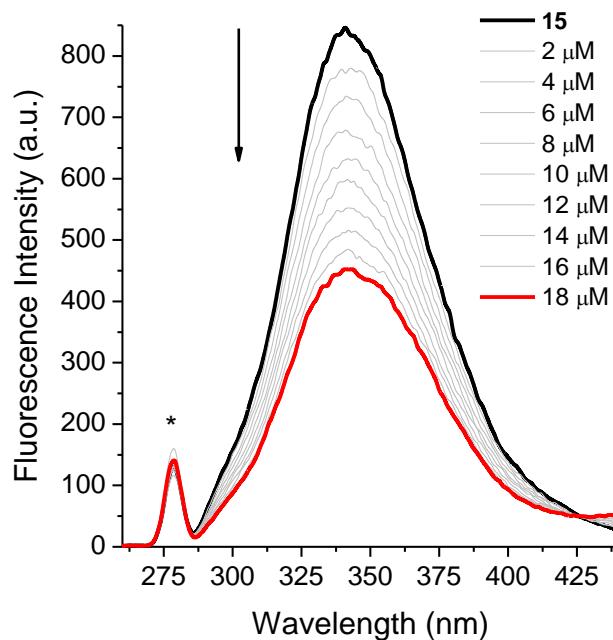
**Figure S1.** UV-Vis absorption spectra for BSA (11  $\mu\text{M}$ ) in PBS (pH 7.2) in the absence and presence of different amounts of compound **15** (0 to 20  $\mu\text{M}$ ).



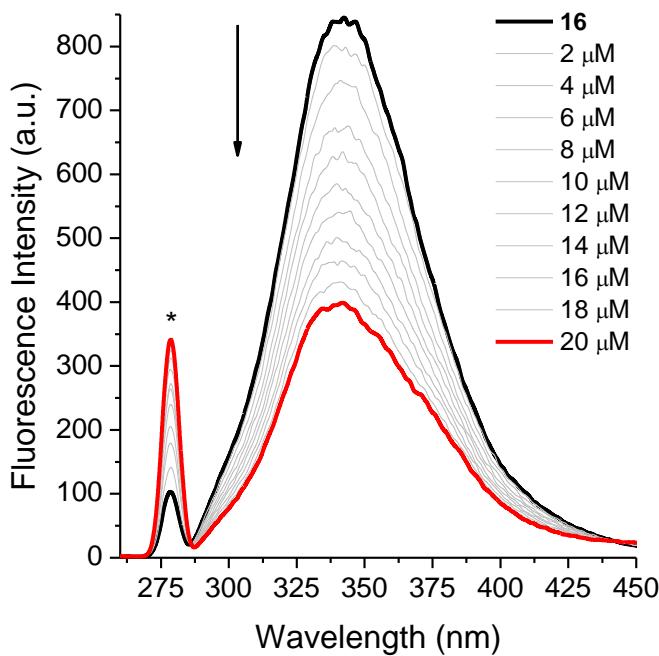
**Figure S2.** UV-Vis absorption spectra for BSA (11  $\mu\text{M}$ ) in PBS (pH 7.2) in the absence and presence of different amounts of compound **16** (0 to 20  $\mu\text{M}$ ).



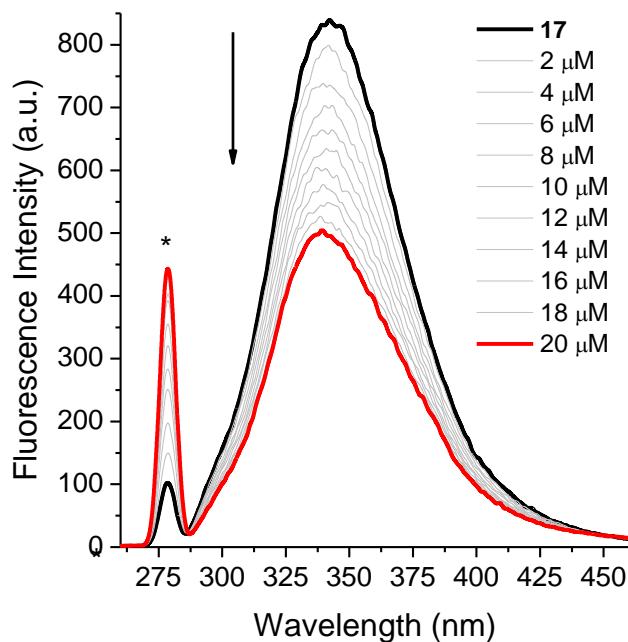
**Figure S3.** UV-Vis absorption spectra for BSA (11  $\mu\text{M}$ ) in PBS (pH 7.2) in the absence and presence of different amounts of compound **17** (0 to 20  $\mu\text{M}$ ).



**Figure S4.** Steady-state fluorescence emission spectra for BSA (11  $\mu\text{M}$ ) in PBS (pH 7.2) in the absence and presence of different amounts of compound **15** (0 to 20  $\mu\text{M}$ ). The asterisk is related to the excitation wavelength. ( $\lambda_{\text{ex}} = 277 \text{ nm}$ , Slits (Ex/Em) = 5.0 nm/5.0 nm)



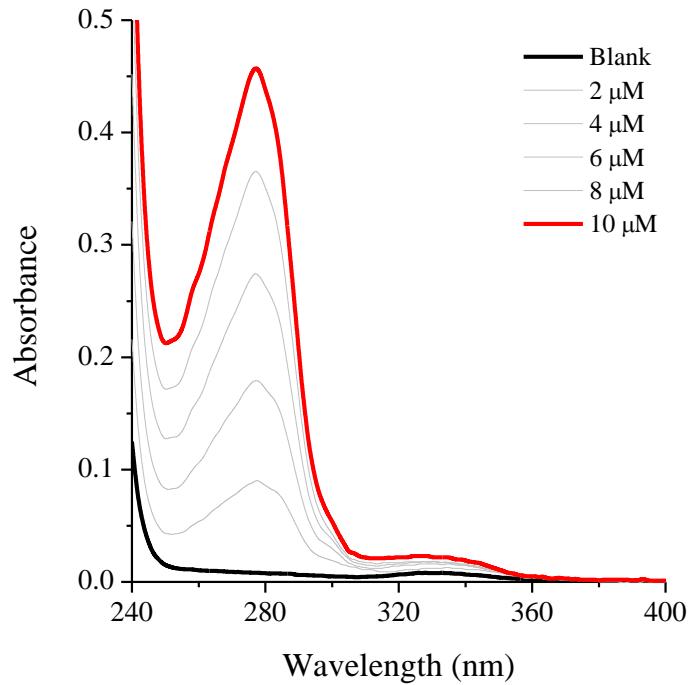
**Figure S5.** Steady-state fluorescence emission spectra for BSA (11  $\mu\text{M}$ ) in PBS (pH 7.2) in the absence and presence of different amounts of compound **16** (0 to 20  $\mu\text{M}$ ). The asterisk is related to the excitation wavelength. ( $\lambda_{\text{ex}} = 277 \text{ nm}$ , Slits (Ex/Em) = 5.0 nm/5.0 nm)



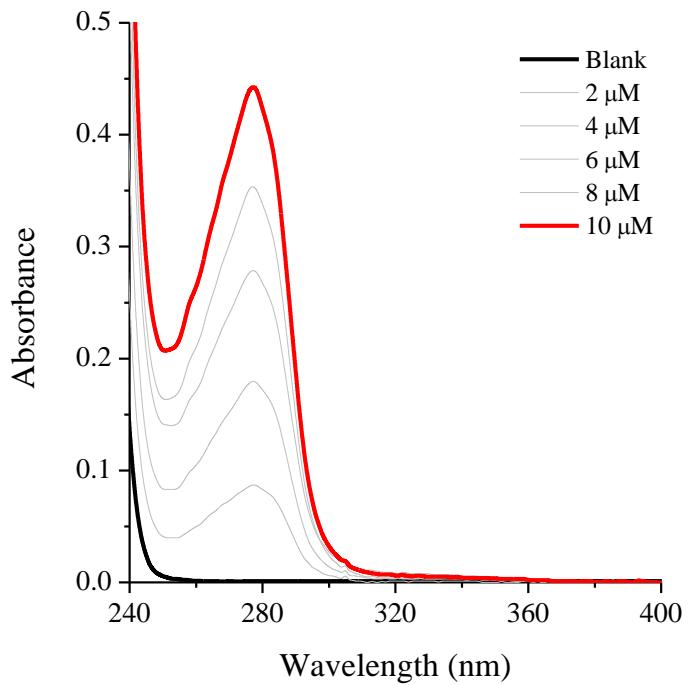
**Figure S6.** Steady-state fluorescence emission spectra for BSA (11  $\mu\text{M}$ ) in PBS (pH 7.2) in the absence and presence of different amounts of compound **17** (0 to 20  $\mu\text{M}$ ). The asterisk is related to the excitation wavelength. ( $\lambda_{\text{ex}} = 277 \text{ nm}$ , Slits (Ex/Em) = 5.0 nm/5.0 nm)

**Table S1.** Linear equations and respective coefficient of determination ( $R^2$ ) from the plot  $F_0/F$  vs. [Q] (Stern-Volmer relation) and  $\log [(F_0-F)/F]$  vs.  $\log [Q]$  (double log plot).

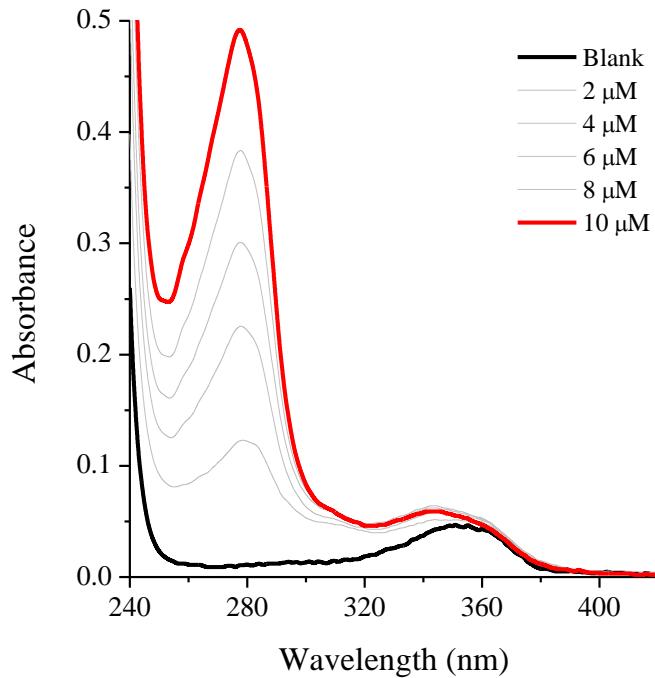
Benzazole	Stern-Volmer relation		Double log plot	
	Equation	$R^2$	Equation	$R^2$
<b>12</b>	$F_0/F=3.14 \times 10^4 [Q]+1.0022$	0.9969	$\log(F_0-F/F)=4.10+0.92 \log [Q]$	0.9928
<b>13</b>	$F_0/F=5.12 \times 10^4 [Q]+0.9746$	0.9986	$\log(F_0-F/F)=5.50+1.16 \log [Q]$	0.9953
<b>14</b>	$F_0/F=3.18 \times 10^4 [Q]+1.0180$	0.9927	$\log(F_0-F/F)=3.91+0.88 \log [Q]$	0.9878
<b>15</b>	$F_0/F=4.66 \times 10^4 [Q]+0.9663$	0.9916	$\log(F_0-F/F)=5.35+1.15 \log [Q]$	0.9983
<b>16</b>	$F_0/F=5.62 \times 10^4 [Q]+0.9237$	0.9859	$\log(F_0-F/F)=6.18+1.31 \log [Q]$	0.9989
<b>17</b>	$F_0/F=3.46 \times 10^4 [Q]+0.9890$	0.9975	$\log(F_0-F/F)=4.95+1.09 \log [Q]$	0.9933



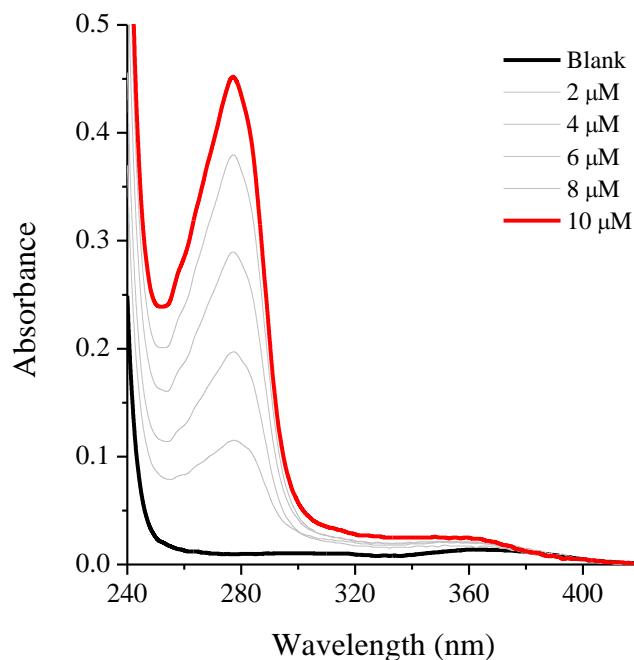
**Figure S7.** UV-Vis spectra of the benzazole 13 [2  $\mu\text{M}$ ] in different BSA concentrations [0-10  $\mu\text{M}$ ]. Blank sample is the UV-VIs in absence of BSA.



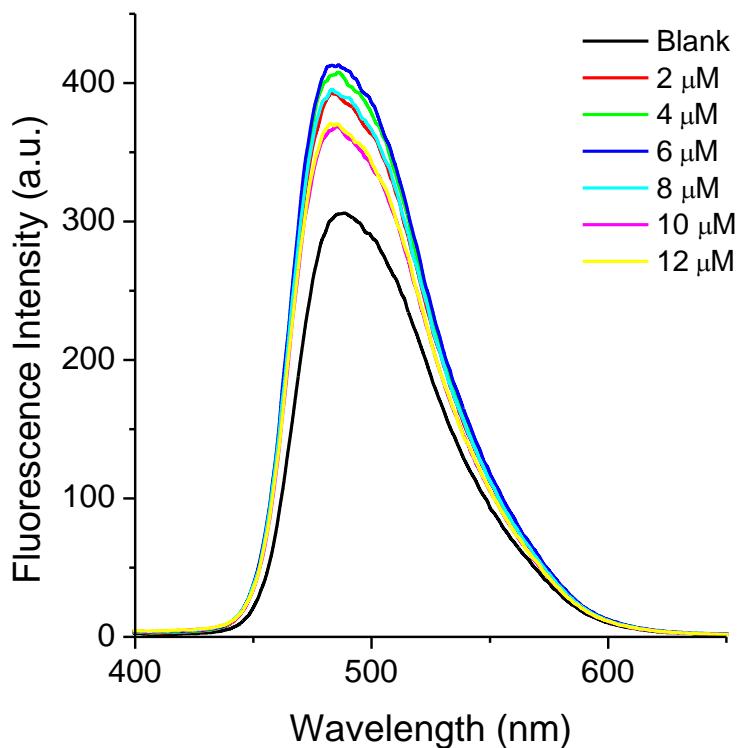
**Figure S8.** UV-Vis spectra of the benzazole 14 [2  $\mu\text{M}$ ] in different BSA concentrations [0-10  $\mu\text{M}$ ]. Blank sample is the UV-VIs in absence of BSA.



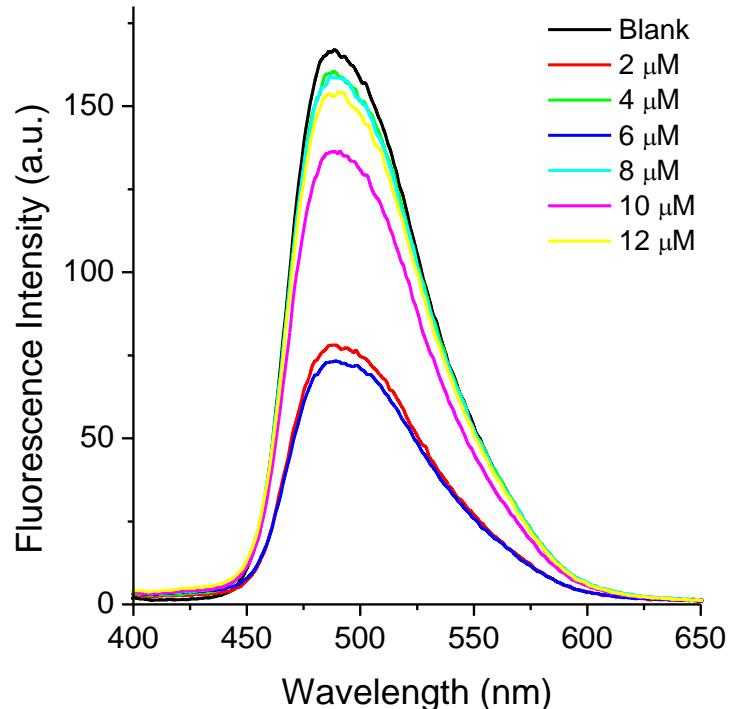
**Figure S9.** UV-Vis spectra of the benzazole 16 [2  $\mu\text{M}$ ] in different BSA concentrations [0-10  $\mu\text{M}$ ]. Blank sample is the UV-VIs in absence of BSA.



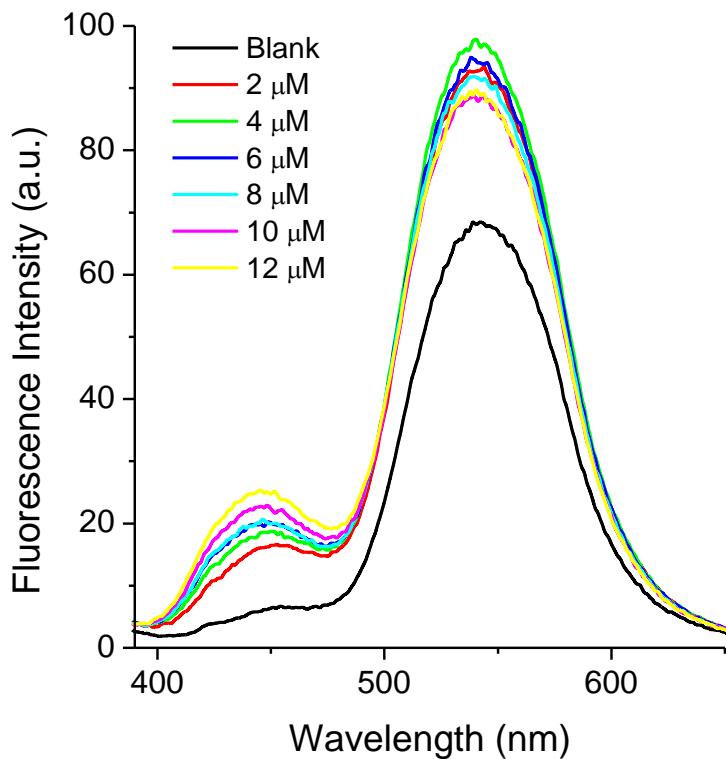
**Figure S10.** UV-Vis spectra of the benzazole 17 [2  $\mu\text{M}$ ] in different BSA concentrations [0-10  $\mu\text{M}$ ]. Blank sample is the UV-VIs in absence of BSA.



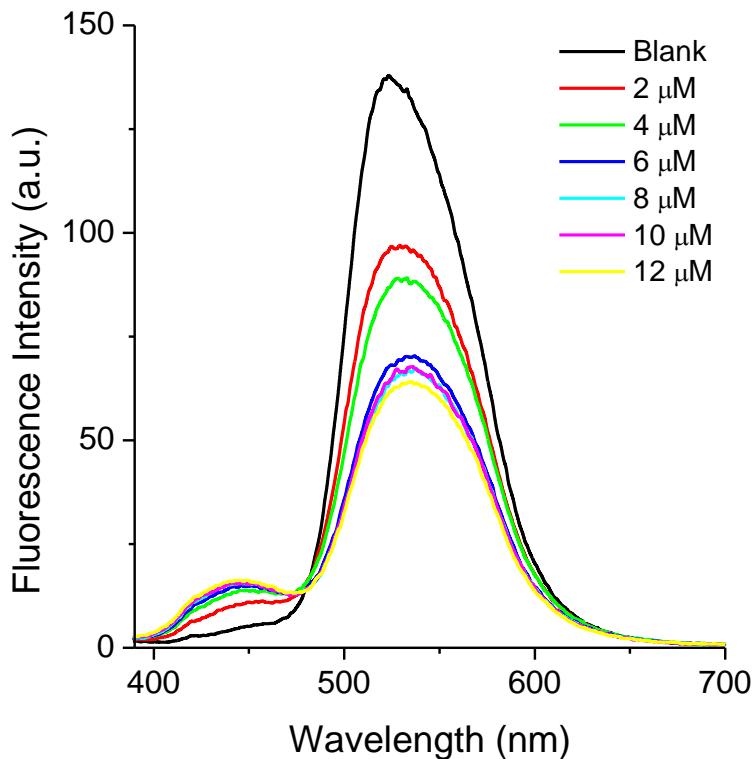
**Figure S11.** Fluorescence emission spectra of the benzazole 13 [2 μM] in different BSA concentrations [0-10 μM]. Blank sample is the UV-VIs in absence of BSA.



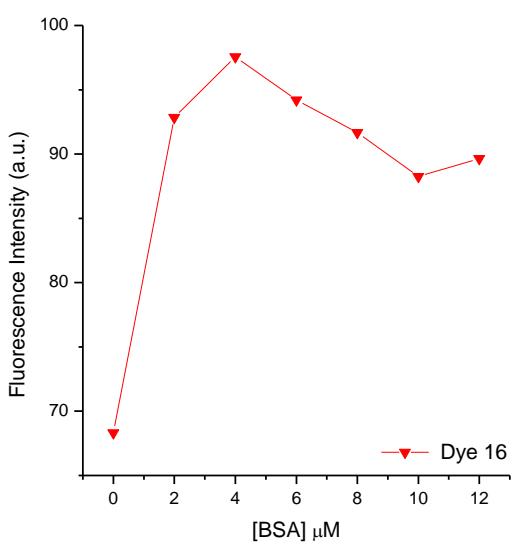
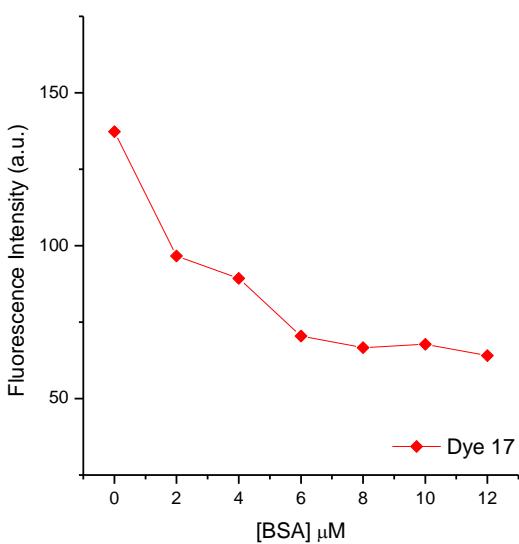
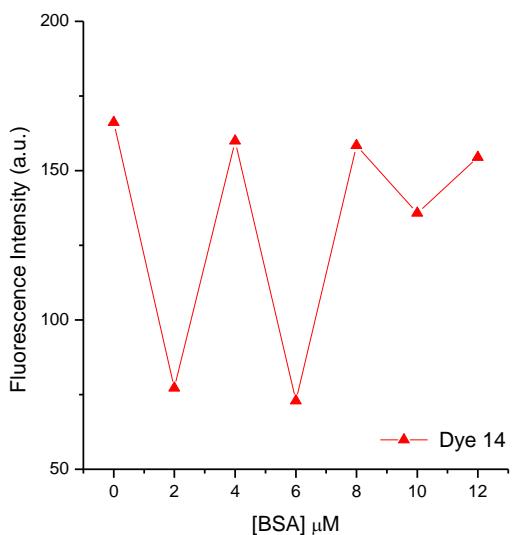
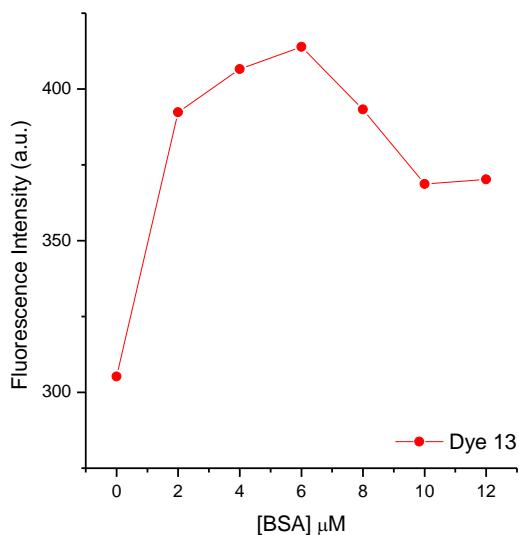
**Figure S12.** Fluorescence emission spectra of the benzazole 14 [2 μM] in different BSA concentrations [0-10 μM]. Blank sample is the UV-VIs in absence of BSA.



**Figure S13.** Fluorescence emission spectra of the benzazole 16 [2  $\mu\text{M}$ ] in different BSA concentrations [0-10  $\mu\text{M}$ ]. Blank sample is the UV-VIs in absence of BSA.



**Figure S14.** Fluorescence emission spectra of the benzazole 17 [2  $\mu\text{M}$ ] in different BSA concentrations [0-10  $\mu\text{M}$ ]. Blank sample is the UV-VIs in absence of BSA.



**Figure S15.** Plot of fluorescence intensity maxima as a function of BSA concentration.