Supplementary Materials:

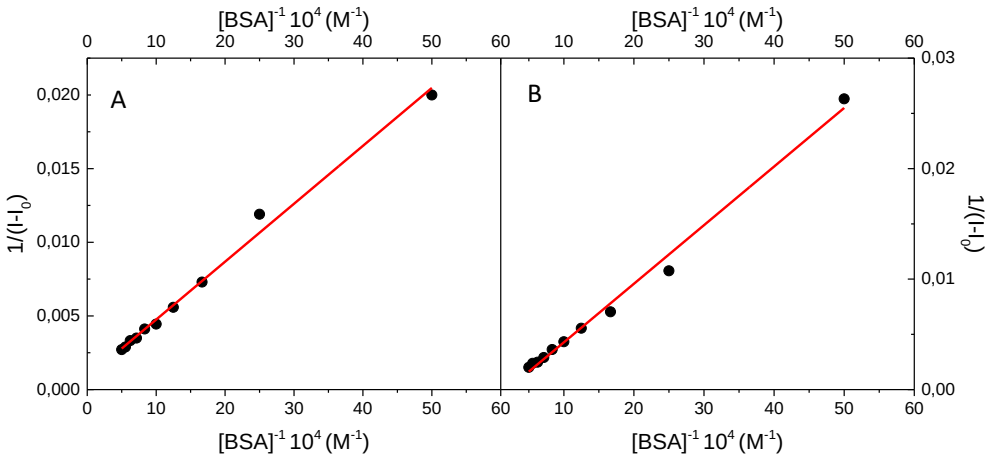

Figure S1. The Benesi-Hildebrand dependence ($1/(I-I_0)$ *vs*. $[BSA]^{-1}$) for **I** (**A**) and **II** (**B**) in phosphate buffer solutions containing different concentration of BSA.

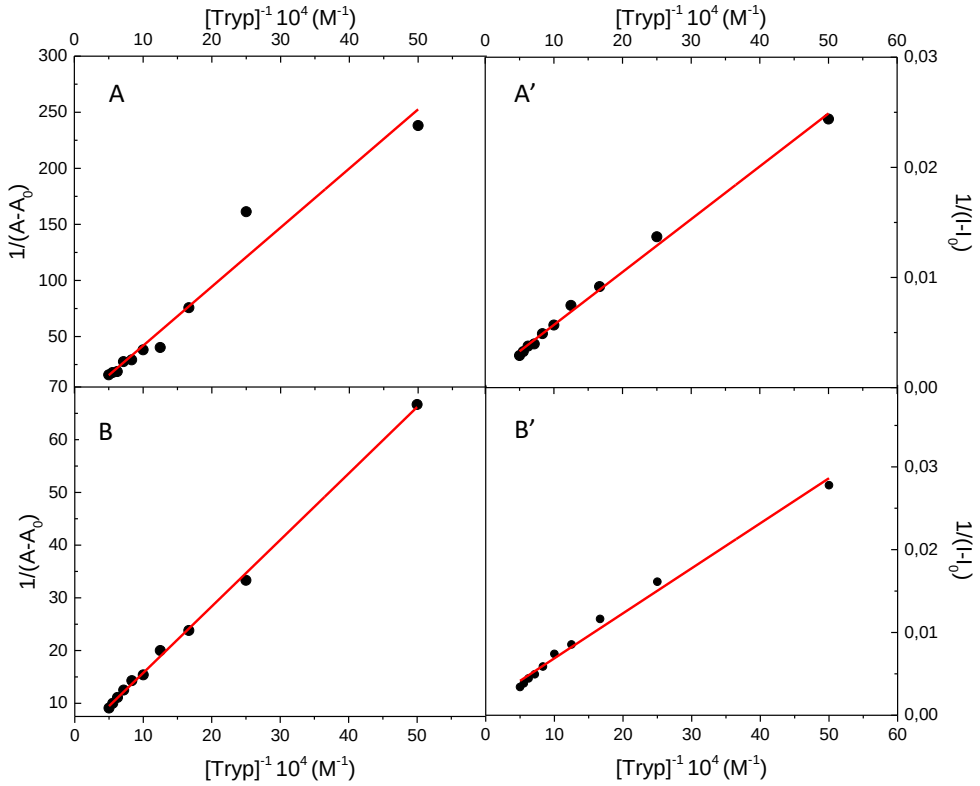

Figure S2. The Benesi-Hildebrand dependence ($1/(A-A_0)$ *vs*. $[Tryp]^{-1}$) and ($1/(I-I_0)$ *vs*. $[Tryp]^{-1}$) for **I** (**A**, **A'**) and **II** (**B**, **B'**) in phosphate buffer solutions containing different concentration of Tryp.

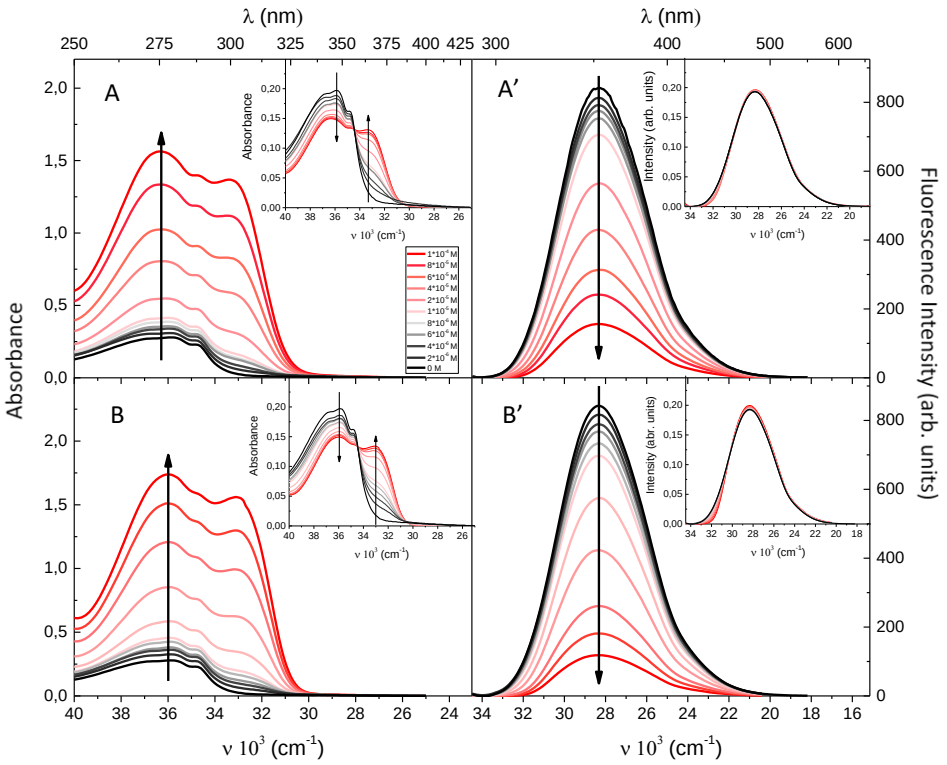

Figure S3 Absorption and fluorescence spectra ($\lambda_{exc.}$=280 nm) of Tryp (c=5·10^{-5} M) in phosphate buffer solutions containing different concentration of **I** (**A**, **A′**) and **II** (**B**, **B′**) (0 M, 2.0·10^{-6} M, 4.0·10^{-6} M, 6.0·10^{-6} M, 8.0·10^{-6} M, 1.0·10^{-5} M, 1.2·10^{-5} M, 1.4·10^{-5} M, 1.6·10^{-5} M, 1.8·10^{-5} M, 2.0·10^{-5} M). The normalized LW absorption and fluorescence band (by scaling the area under the spectrum to be equal to unity) are presented in inserts.

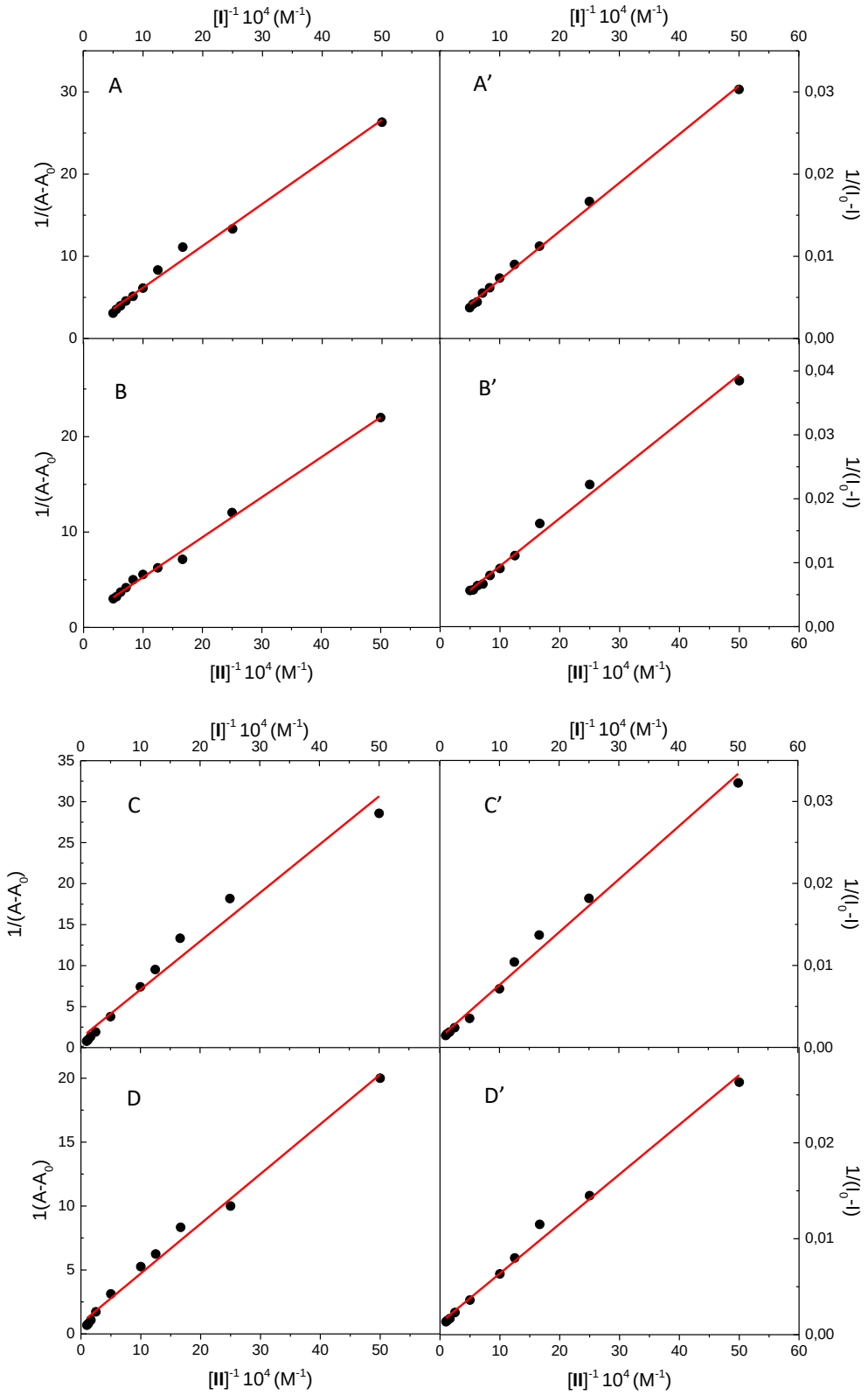

Figure S4 The Benesi-Hildebrand dependence $1/(A-A_0)$ *vs.* [Molecule]$^{-1}$ (**A**, **B**, **C**, **D**) and $1/(I_0-I)$ *vs.* [Molecule]$^{-1}$ (**A′**, **B′**, **C′**, **D′**) for BSA-**I** (**A**, **A′**), BSA-**II** (**B**, **B′**), Tryp-**I** (**C**, **C′**) and Tryp-**II** (**D**, **D′**) systems in phosphate buffer solutions containing different concentration of investigated molecules.

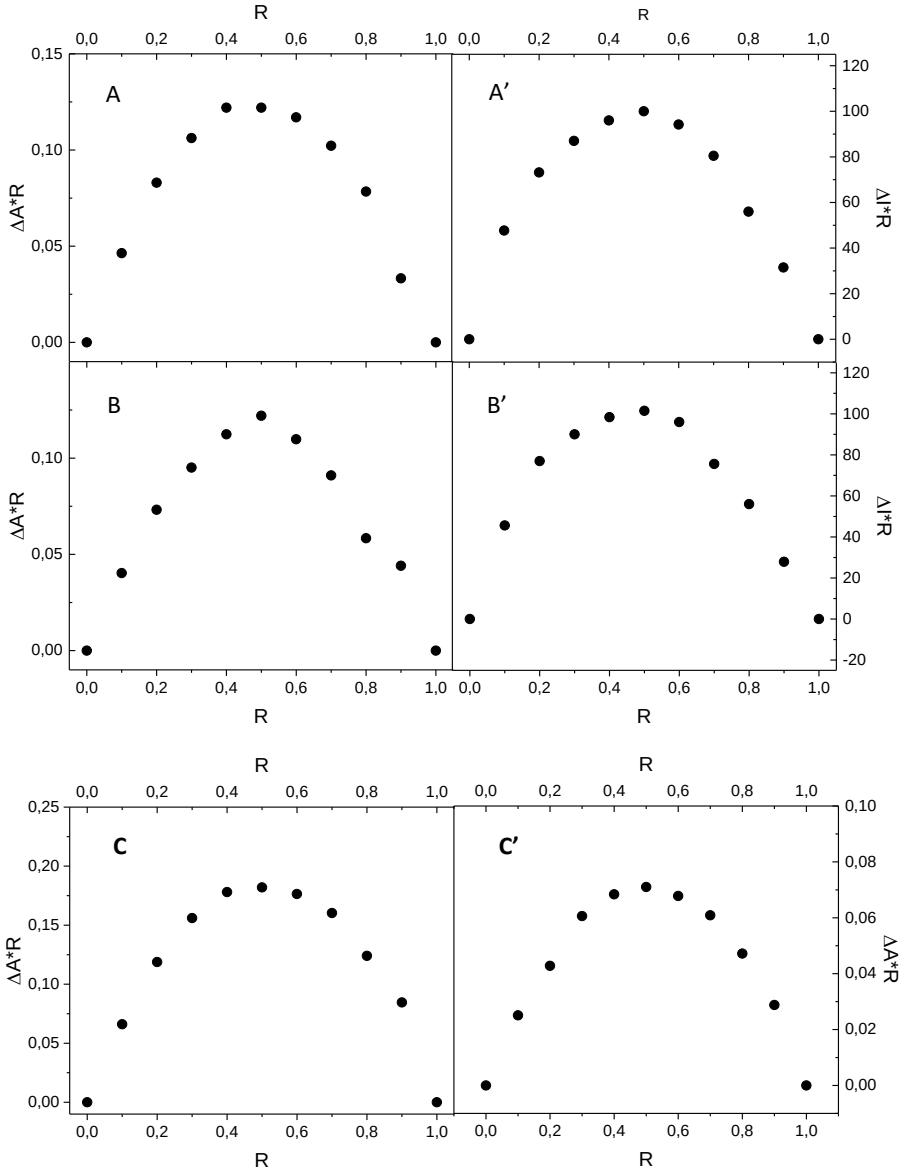

Figure S5 Job plots of the investigated BSA-**I** (**A**, **A′**), BSA-**II** (**B**, **B′**), Tryp-**I** (**C**) and Tryp-**II** (**C′**) systems prepared by using steady-state absorption (**A**, **B**, **C**) and fluorescence (**A′**, **B′**, **C′**) data.