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## **Supplementary Info**



Figure S1: Absorbance spectra of AuNPs in 20 mM Mops in the presence of increasing concentration of BSA. The red spectra are those of lysozyme, shown to illustrate concentration linearity.



**Figure S1:** Plot of the absorbance change at 524 nm ( $A_{524 nm}$ ) as a function of BSA (black squares) and lysozyme (red squares) concentrations (left panel). The right panel displays the initial linear portion of the plot.



**Figure S2:** Absorbance spectra of AuNPs in 20 mM Mops in the presence of increasing concentration of BSA. The red spectra are those of myoglobin, shown to illustrate concentration linearity.



**Figure S2:** Plot of the absorbance change at 524 nm ( $A_{524 nm}$ ) as a function of BSA (black squares) and myoglobin (red squares) concentrations (left panel). The right panel displays the initial linear portion of the plot.



Figure S3: Absorbance spectra of AuNPs in 20 mM Mops in the presence of increasing concentration of BSA. The red spectra are those of catalase, shown to illustrate concentration linearity.



**Figure S3:** Plot of the absorbance change at 524 nm ( $A_{524 nm}$ ) as a function of BSA (black squares) and catalase (red squares) concentrations (left panel). The right panel displays the initial linear portion of the plot.



**Figure S4:** Absorbance spectra of AuNPs in 20 mM Mops in the presence of increasing concentration of BSA. The red spectra are those of aldolase, shown to illustrate concentration linearity.



**Figure S4:** Plot of the absorbance change at 524 nm ( $A_{524 nm}$ ) as a function of BSA (black squares) and aldolase (red squares) concentrations (left panel). The right panel displays the initial linear portion of the plot.



**Figure S5:** Absorbance spectra of AuNPs in 20 mM Mops in the presence of increasing concentration of BSA. The red spectra are those of cytochrome C, shown to illustrate concentration linearity.



**Figure S5:** Plot of the absorbance change at 524 nm ( $A_{524 nm}$ ) as a function of BSA (black squares) and cytochrome C (red squares) concentrations (left panel). The right panel displays the initial linear portion of the plot.



Figure S6: Absorbance spectra of AuNPs in 20 mM Mops in the presence of increasing concentration of BSA. The red spectra are those of ferritin, shown to illustrate concentration linearity.



**Figure S6:** Plot of the absorbance change at 524 nm ( $A_{524 nm}$ ) as a function of BSA (black squares) and ferritin (red squares) concentrations (left panel). The right panel displays the initial linear portion of the plot.



**Figure S7:** Absorbance spectra of AuNPs in 20 mM Mops in the presence of increasing concentration of BSA. The red spectra are those of transferrin, shown to illustrate concentration linearity.



**Figure S7:** Plot of the absorbance change at 524 nm ( $A_{524 nm}$ ) as a function of BSA (black squares) and transferrin (red squares) concentrations (left panel). The right panel displays the initial linear portion of the plot.