Study of the interaction mechanism of silver nanoparticles

with γ-globulin, fibrinogen and hyaluronidase

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The short title: The interaction of silver nanoparticles with proteins.
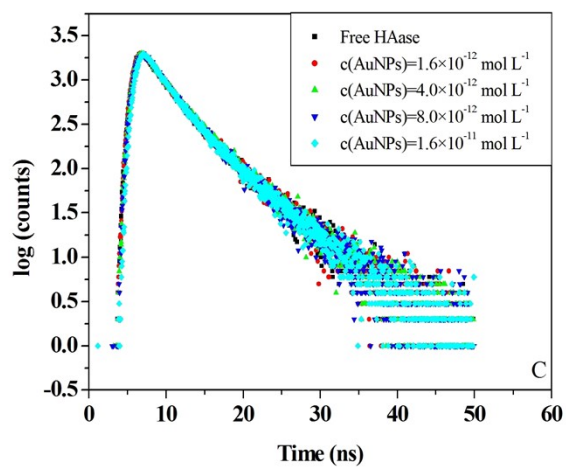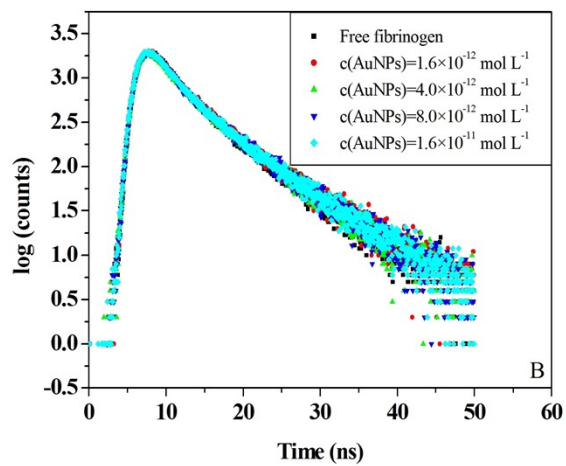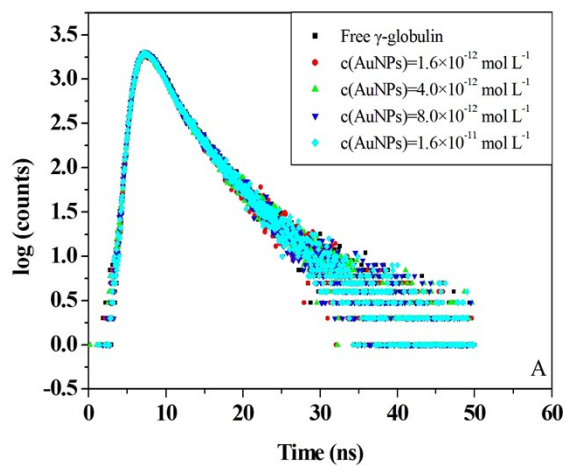
Figure S1. Time-resolved fluorescence decay profile of γ-globulin (A), fibrinogen (B) and HAase (C) in the absence and presence of AgNPs, respectively. c(γ-globulin)=5.0×10^{-6} mol L^{-1}, c(fibrinogen)=1.0×10^{-6} mol L^{-1}, c (HAase)=4.8×10^{-6} mol L^{-1}.
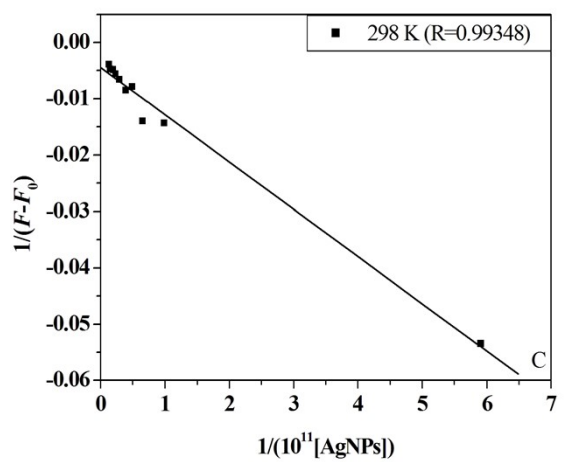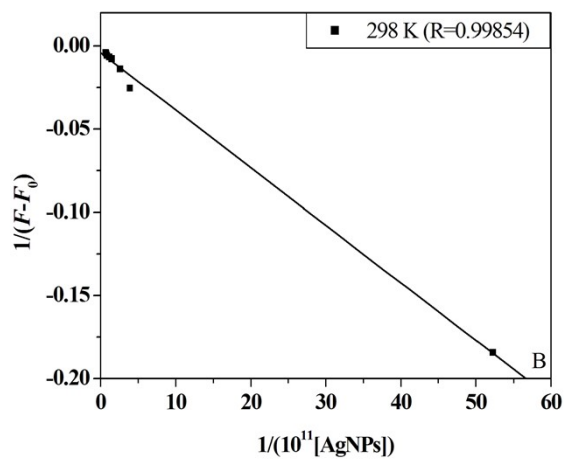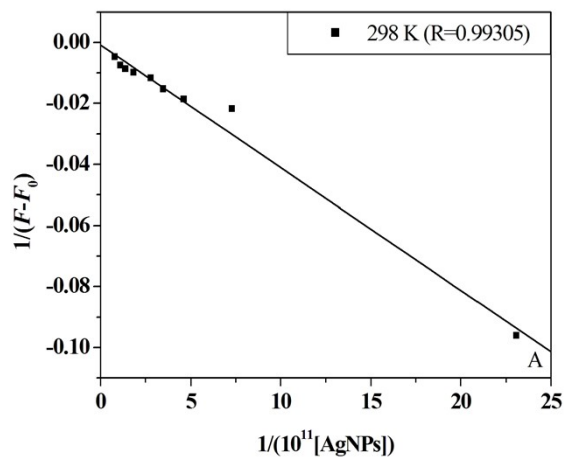
Figure S2. Benesi-Hildebrand double reciprocal plot to determine the stoichiometric association of the AgNPs to

γ-globulin (A)/fibrinogen (B)/HAase (C) for 1:1 binding.

Table S1. All time-resolved parameters of γ-globulin/fibrinogen/HAase in the absence and presence of AgNPs.

System	c(AgNPs)	τ_1 (ns)	τ_2 (ns)	a_1	a_2	τ_{avg} (ns)	χ^2
Native γ-globulin	/	1.921	5.004	0.429	0.571	4.314	1.000
AgNPs-γ-globulin	1.6×10^{-12}	1.952	5.112	0.454	0.546	4.351	1.007
	4.0×10^{-12}	2.049	5.256	0.490	0.510	4.382	1.000
	8.0×10^{-12}	1.750	4.770	0.325	0.675	4.317	1.001
	1.6×10^{-11}	2.262	5.480	0.586	0.414	4.293	1.002
Native fibrinogen	/	3.143	7.608	0.316	0.684	6.892	1.018
AgNPs-fibrinogen	1.6×10^{-12}	2.574	7.151	0.266	0.734	6.623	1.113
	4.0×10^{-12}	2.552	7.259	0.260	0.740	6.741	1.026
	8.0×10^{-12}	3.777	7.337	0.271	0.729	6.765	1.104
	1.6×10^{-11}	2.988	7.800	0.389	0.611	6.857	1.051
Native HAase	/	1.119	5.524	0.078	0.922	5.450	1.001
AgNPs-HAase	1.6×10^{-12}	1.214	5.732	0.058	0.942	5.674	1.027
	4.0×10^{-12}	2.329	6.112	0.104	0.896	5.952	1.000
	8.0×10^{-12}	1.242	5.492	0.025	0.975	5.468	1.074
	1.6×10^{-11}	2.005	5.578	0.059	0.941	5.499	1.034