Electronic Supplementary Information

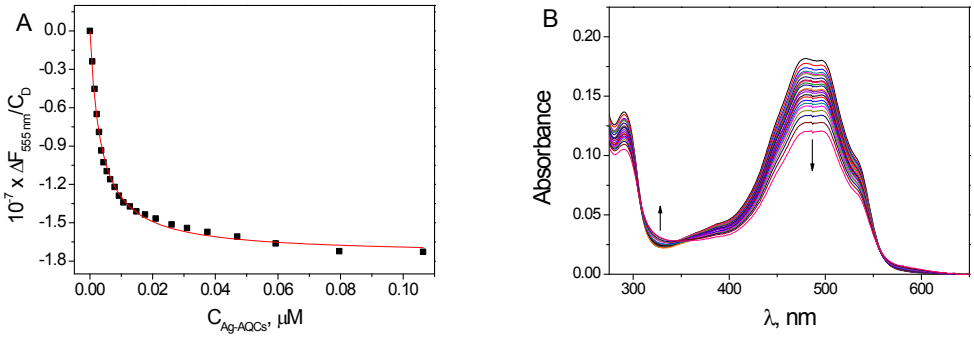

Fig. 1SI A) Fluorescence binding isotherm for DOX/Ag-AQCs system; the continuous line is obtained by fitting of eq (1) to the data pairs. B) Variation of the absorbance spectra during the titration of DOX with Ag-AQC. $0 < C_{Ag\text{-}AQC}/C_D < 0.01$ in the arrows sense, $C^0_D = 5 \times 10^{-5}$ M, I = 2.5 mM, pH = 7 and T = 25 ºC.

The fitting of eq (1) to the $\Delta F/C_D$ data pairs versus the equilibrium concentration [Ag-AQCs] has enabled us to obtain by iteration the value $K = (2.9 \pm 0.1) \times 10^8$ M^{-1} $\Delta\phi$ being the change in the fluorescence optical variable; only few iterations sufficed to attain the convergence.

$$\frac{\Delta F}{C_D} = \frac{K \cdot \Delta\phi \cdot [Ag - AQCs]}{1 + K \cdot [Ag - AQCs]} \qquad (1SI)$$

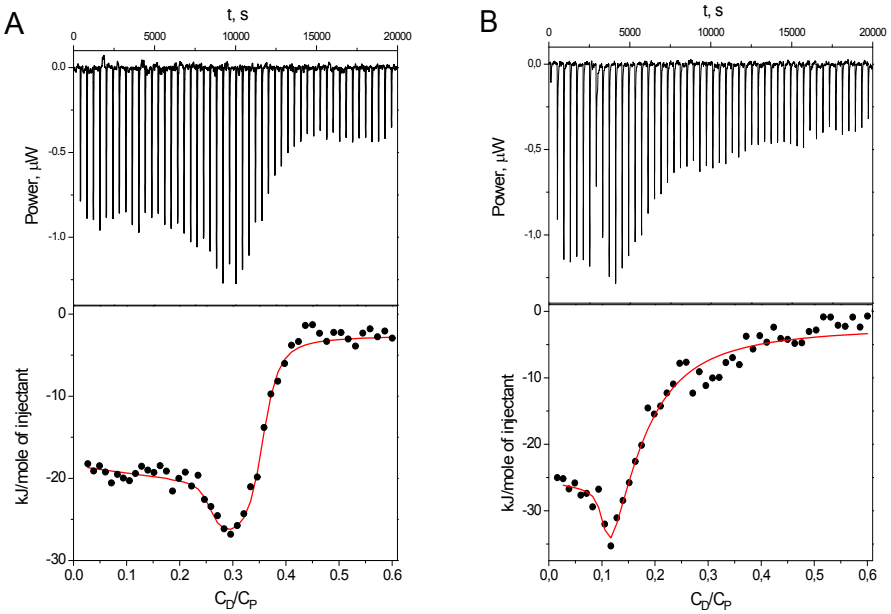

Fig. 2SI ITC profile obtained for the DNA/DOX system (**A**) (taken from ref. 12), and (Ag-AQCs + DOX)/DNA system (**B**). C_D = 0.8 mM, C_{DNA} = 0.4 mM, pH = 7, I = 2.5 mM, T = 25 ºC.