

# Supplementary Materials: DNA Scaffolded Silver Clusters: A Critical Study

Bidisha Sengupta, Christa Corley, Keith Cobb, Anthony Saracino, Steffen Jockusch

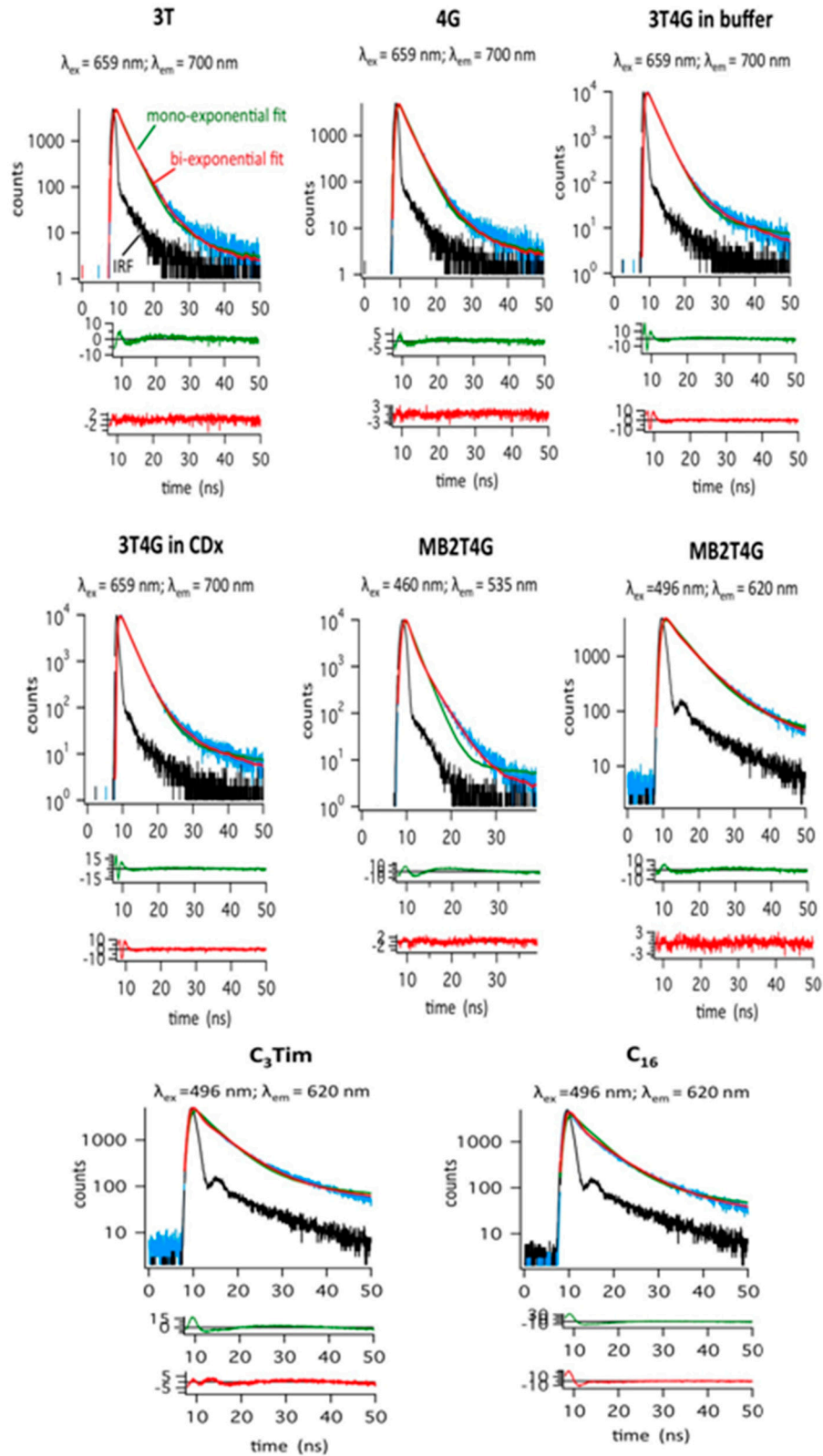
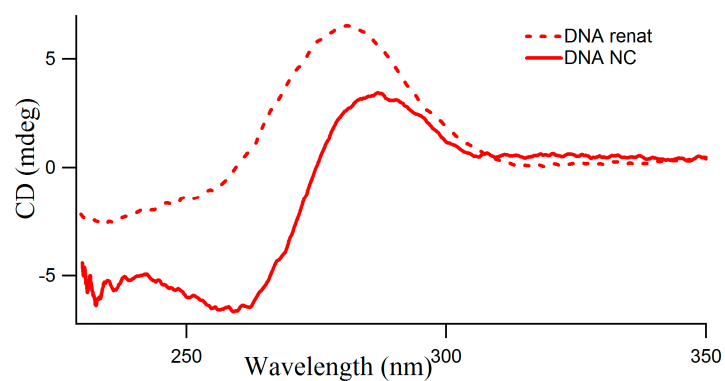
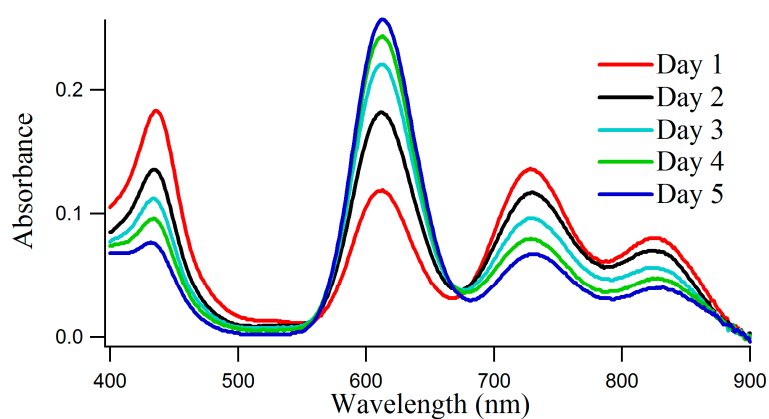


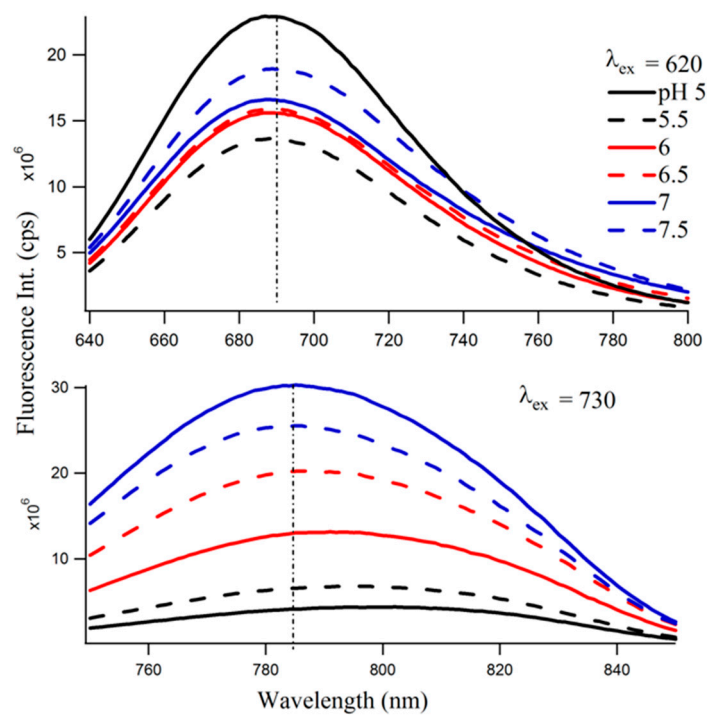
Figure S1. Fluorescence decay profiles of Ag-NC on different DNA templates.



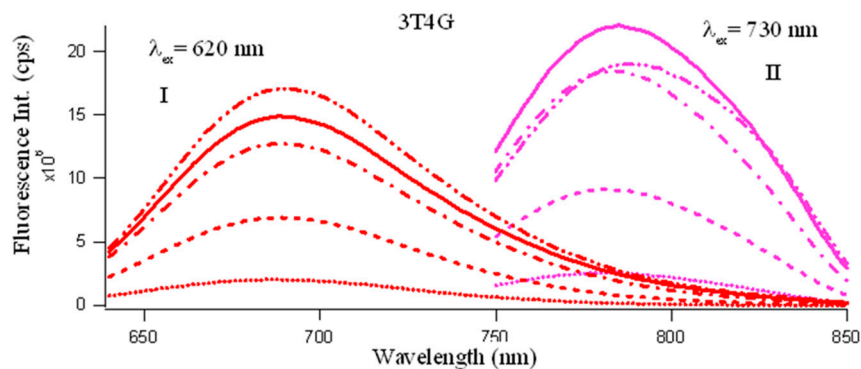
**Figure S2.** CD spectra of renatured 3T4G template in unconjugated (dashed) and Ag-NC conjugated (solid) states.



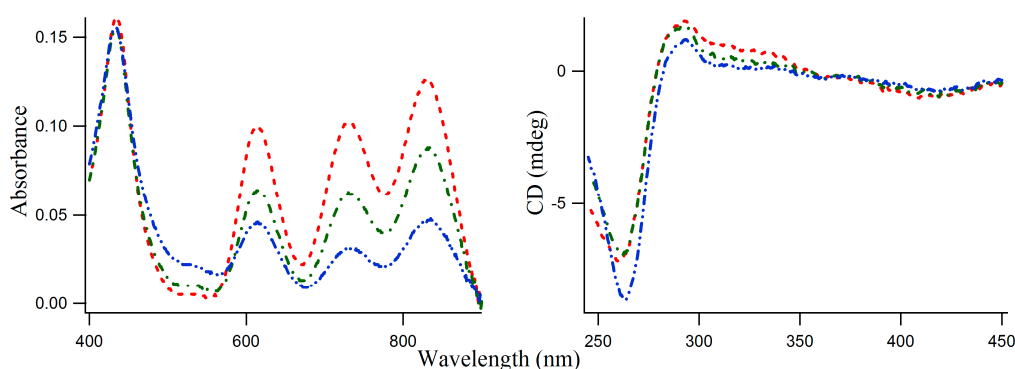
**Figure S3.** Aging of the 3T4G Ag-NCs for [DNA]:[Ag] = 1:6, for 5 days.



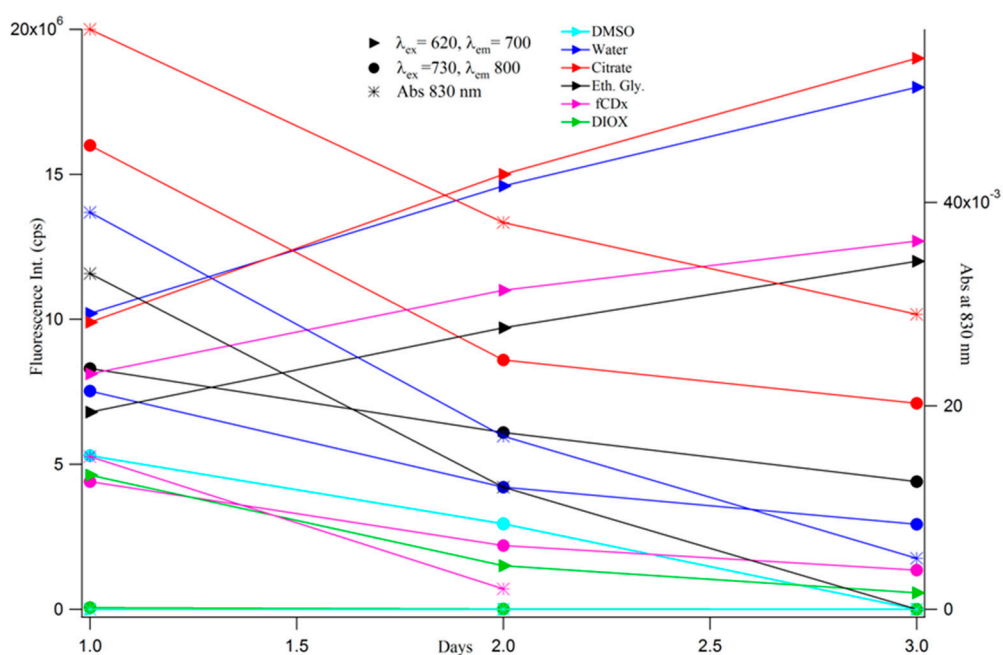
**Figure S4.** Fluorescence emission spectra of Ag-nanoclusters on 3T4G template in 10 mM citrate buffer of various pH.



**Figure S5.** Influence of increasing silver concentrations on the fluorescence emission properties of the silver nanoclusters on 3T4G DNA templates in 10 mM citrate buffer of pH 6.5. [3T4G]:[Ag] is 1:1 (.....), 1:2 (---), 1:4 (-.-.-), 1:6 (—), 1:8 (-.-.-).



**Figure S6.** Absorption (left) and circular dichroism (right) spectra of 3T4G templated Ag-NC in citrate buffer of pH 6.5 with NaNO<sub>3</sub> salt concentrations of 60 (red ---), 100 (green -.-.-) and 200 (blue -.-.-) mM.



**Figure S7.** The variation of the fluorescence emission intensities and absorbance of 3T4G scaffolded Ag-NC species I ( $\lambda_{\text{ex}} = 620$ ), II ( $\lambda_{\text{ex}} = 730$ ) and III ( $\lambda_{\text{abs}} = 830$ ) with time (days) in solvents of different polarities (7.5  $\mu\text{M}$  3T4G enclosed Ag-NCs with 45  $\mu\text{M}$  AgNO<sub>3</sub>, 45  $\mu\text{M}$  NaBH<sub>4</sub>).