

## Supporting Information

### Silver Nanomaterials Regulated by Structural Competition of G-/C-rich oligonucleotides

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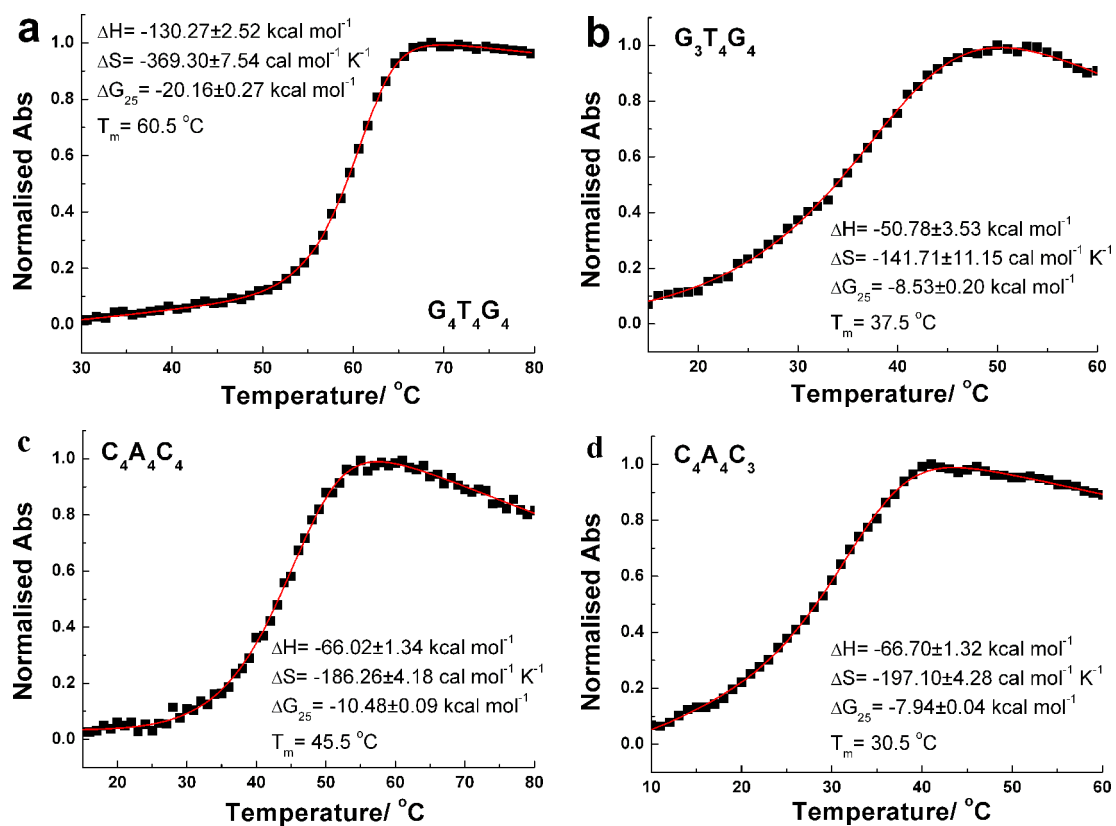


Figure S1. UV melting curves and non-linear least-squares fit of 20  $\mu\text{M}$  d[G<sub>4</sub>T<sub>4</sub>G<sub>4</sub>] (a), d[G<sub>3</sub>T<sub>4</sub>G<sub>4</sub>] (b) at pH 7.0, and d[C<sub>4</sub>A<sub>4</sub>C<sub>4</sub>] (c), d[C<sub>4</sub>A<sub>4</sub>C<sub>3</sub>] (d) at pH 5.0.

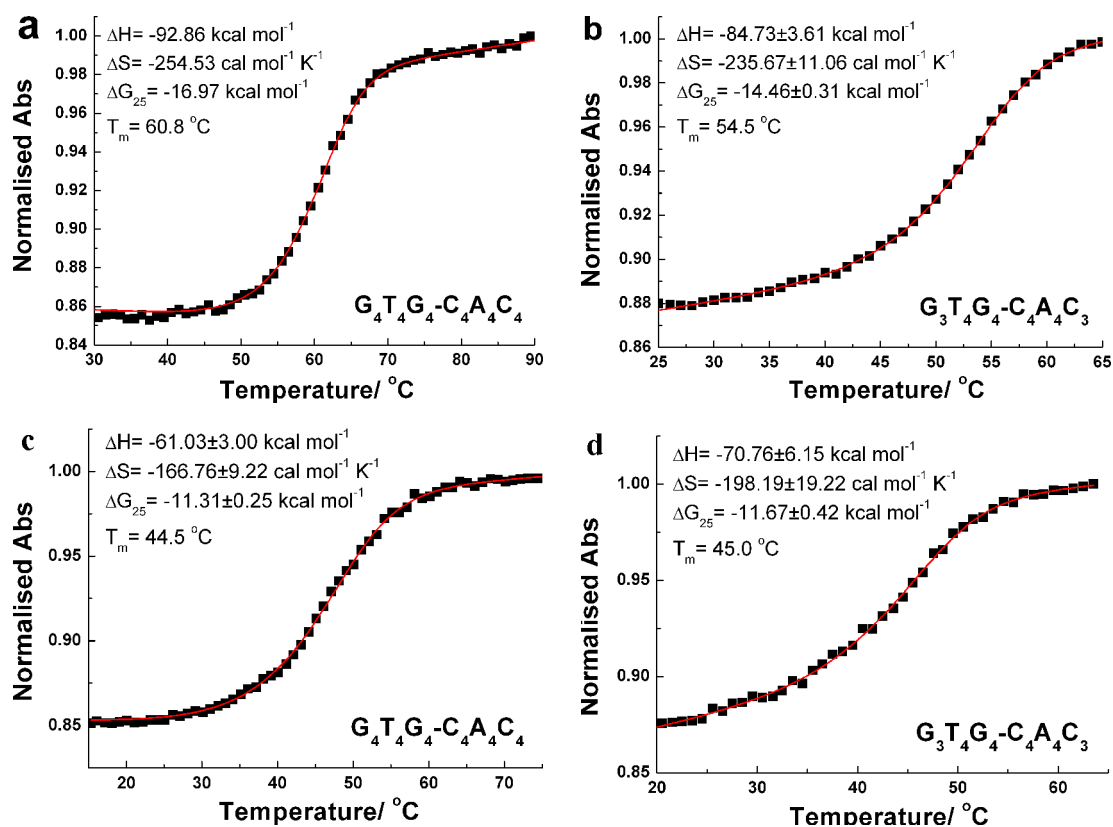


Figure S2. UV melting curves and non-linear least-squares fit of 20  $\mu\text{M}$  d[G<sub>4</sub>T<sub>4</sub>G<sub>4</sub>]-d[C<sub>4</sub>A<sub>4</sub>C<sub>4</sub>], d[G<sub>3</sub>T<sub>4</sub>G<sub>4</sub>]-d[C<sub>4</sub>A<sub>4</sub>C<sub>3</sub>] at pH 7.0 (a, b) and pH 5.0 (c, d).

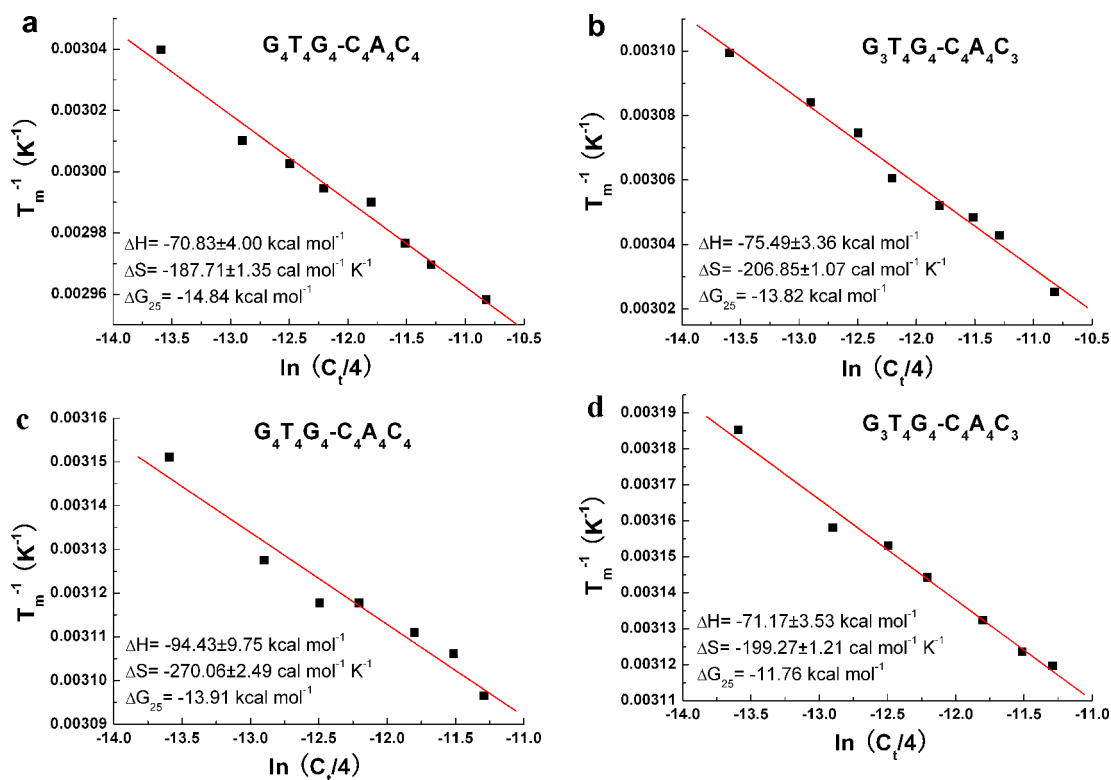


Figure S3. Plots of  $T_m^{-1}$  versus  $\ln(C_t/4)$ : d[G<sub>4</sub>T<sub>4</sub>G<sub>4</sub>]-d[C<sub>4</sub>A<sub>4</sub>C<sub>4</sub>], d[G<sub>3</sub>T<sub>4</sub>G<sub>4</sub>]-d[C<sub>4</sub>A<sub>4</sub>C<sub>3</sub>] at pH 7.0 (a, b) and pH 5.0 (c, d).

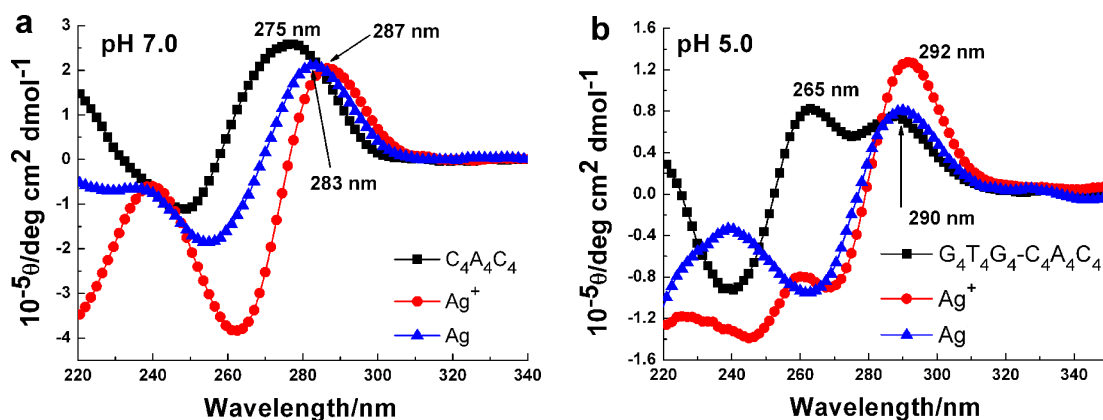


Figure S4. CD spectra of 20 μM d[C<sub>4</sub>A<sub>4</sub>C<sub>4</sub>] at pH 7.0 (a) and d[G<sub>4</sub>T<sub>4</sub>G<sub>4</sub>]-d[C<sub>4</sub>A<sub>4</sub>C<sub>4</sub>] at pH 5.0 (b) in the presence of 80 μM Ag<sup>+</sup> or Ag.

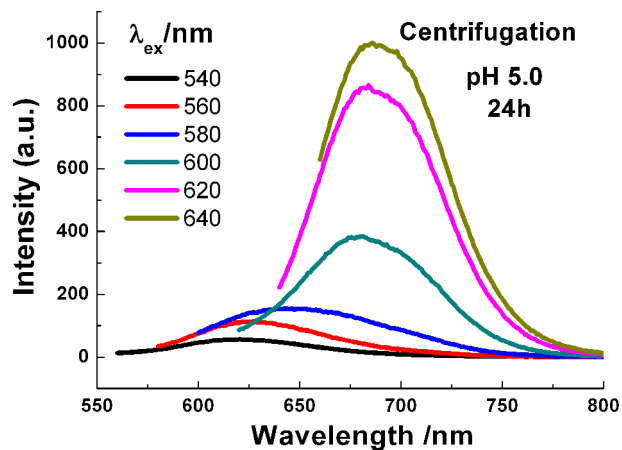


Figure S5. Fluorescence emission spectra of the centrifuged supernatant of 24 h-aged Ag-[G<sub>4</sub>T<sub>4</sub>G<sub>4</sub>] at pH 5.0.

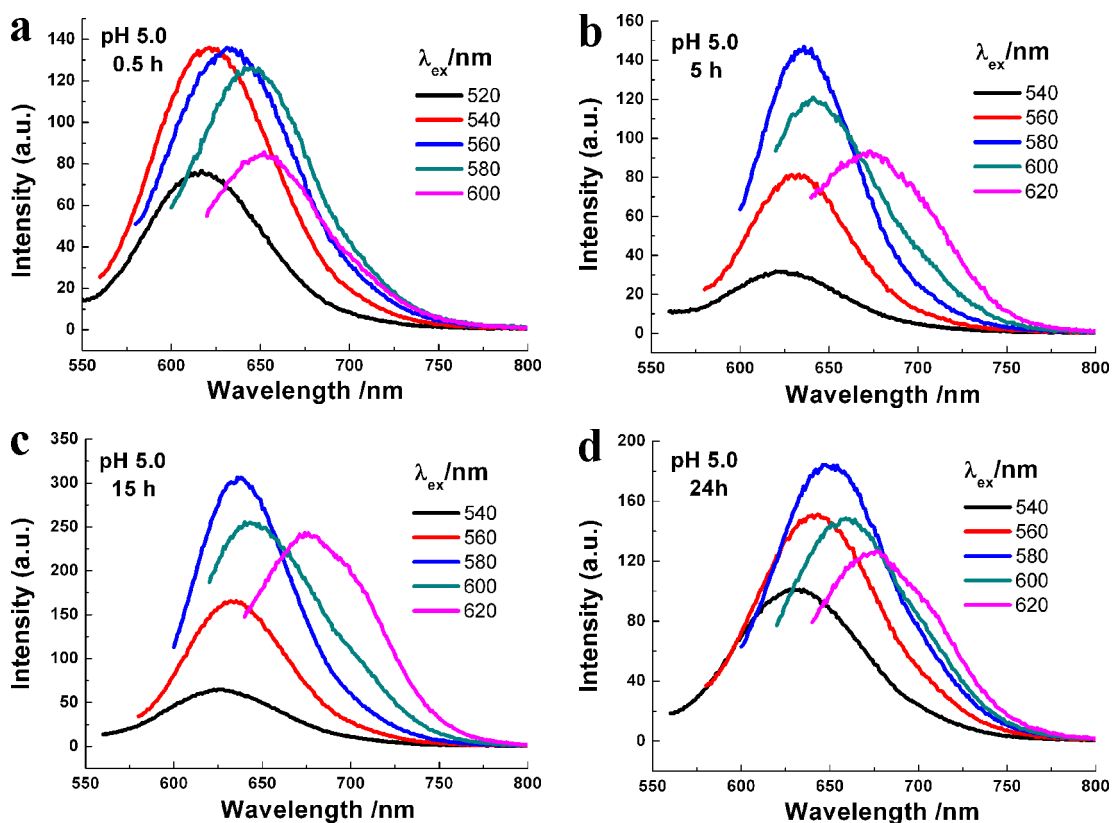


Figure S6. Fluorescence emission spectra of d[G<sub>3</sub>T<sub>4</sub>G<sub>4</sub>] at pH 5.0 in the presence of 80  $\mu$ M Ag<sup>+</sup> after reduction by 80  $\mu$ M BH<sub>4</sub><sup>-</sup> for 0.5 h (a), 5 h (b), 15 h (c), and 24 h (d) respectively.

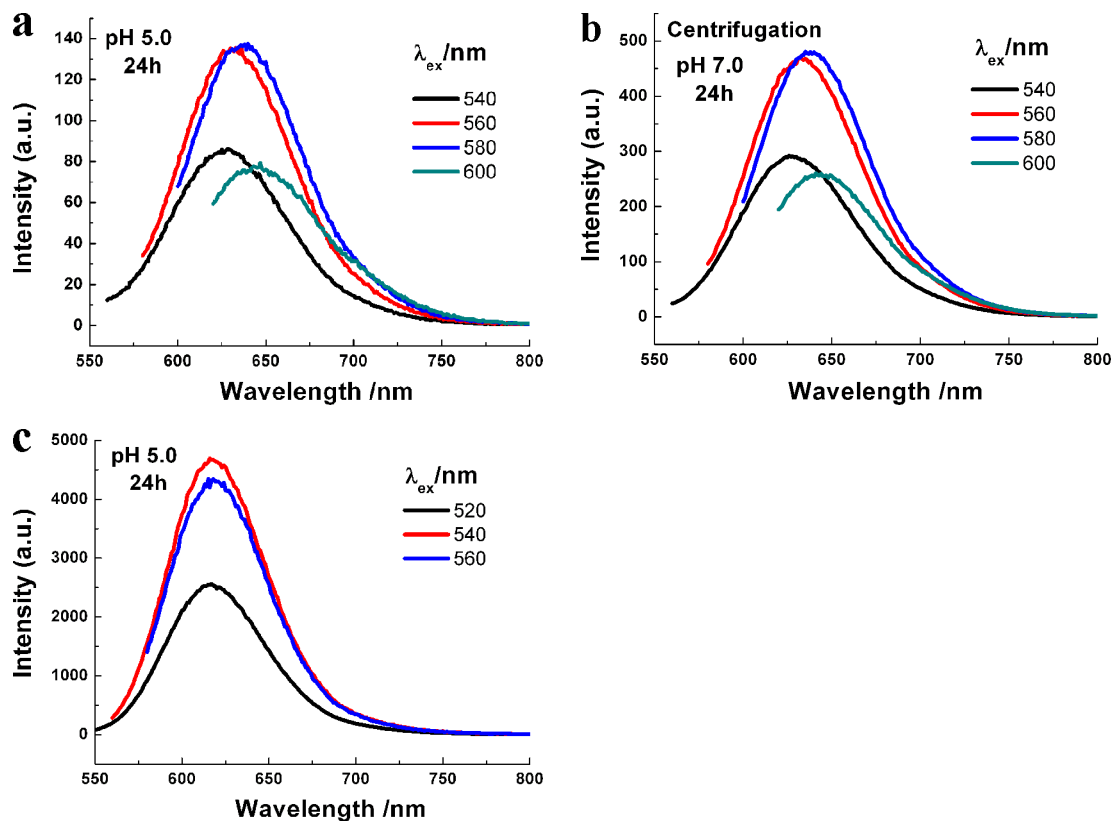


Figure S7. Fluorescence emission spectra of 24 h-aged Ag-d[C<sub>4</sub>A<sub>4</sub>C<sub>4</sub>] at pH 5.0 (a), the centrifugated supernatant of 24 h-aged Ag-d[C<sub>4</sub>A<sub>4</sub>C<sub>4</sub>] at pH 7.0 (b), as well as 24 h-aged Ag-d[C<sub>4</sub>A<sub>4</sub>C<sub>3</sub>] at pH 5.0 (c).

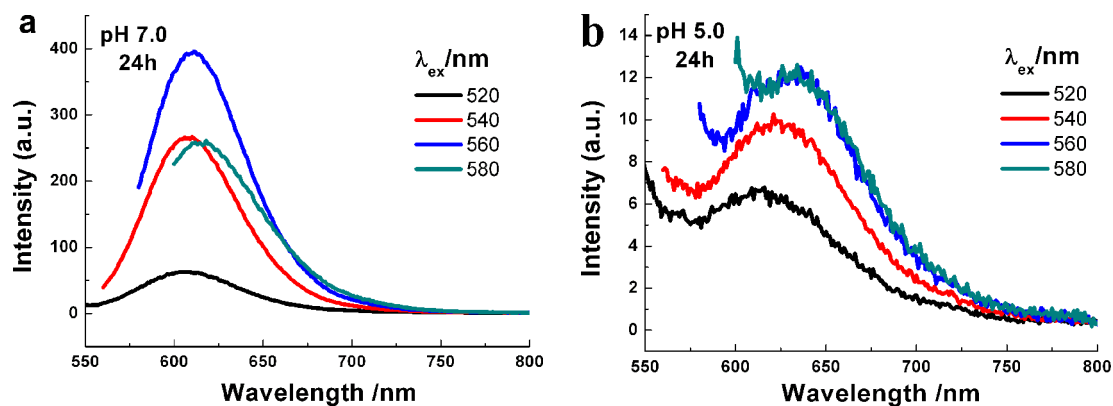


Figure S8. Fluorescence emission spectra of 24 h-aged Ag-d[C<sub>4</sub>A<sub>4</sub>C<sub>2</sub>] at pH 7.0 (a) and 5.0 (b).