

Supporting for

Characterization of intermolecular G-quadruplex formation over intramolecular G-triplex for DNA containing three G-tracts

Qingqing Zhang,^a Tong Yang,^a Guoxiang Zheng,^b Heng Gao,^a Chenxiao Yan,^a Xiong
Zheng,^a Xiaoshun Zhou^a and Yong Shao^{*,a}

^a Key Laboratory of the Ministry of Education for Advanced Catalysis Materials,
Institute of Physical Chemistry, College of Chemistry and Life Sciences, Zhejiang
Normal University, Jinhua 321004, Zhejiang, China.

^b Undergraduate Teaching Department, Zhejiang Normal University, Jinhua 321004,
Zhejiang, China.

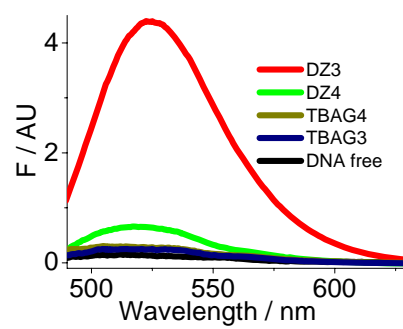


Figure S1. Fluorescence spectra of AO (10 μM) in the absence and presence of TBAG3 and TBAG4 (1 μM) in comparison with DZ3 and DZ4, respectively.

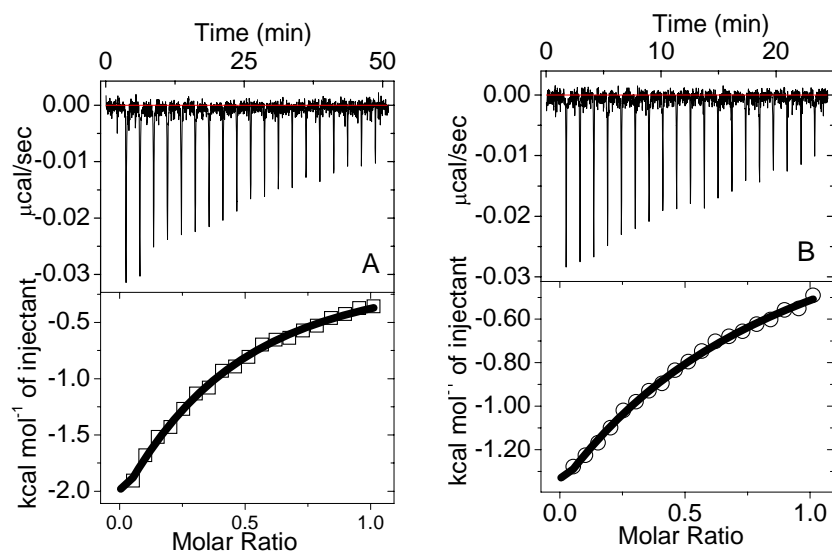


Figure S2. Binding of AO with (A) G4T4G3 and (B) G4T4G4 evaluated by ITC. G4T4G3 and G4T4G4 (20 μM) were separately titrated by 100 μM AO in 50 mM Tris buffer (pH 7.0) containing 100 mM K^+ at 20 $^{\circ}\text{C}$.

Table S1 Fitted thermodynamic results of ITC experiments.

	n site	K 10 ⁵ /M	Δ H kcal/mol	Δ S cal/mol/deg	Δ G(293 K) kcal/mol
DZ3	0.24 (\pm 0.01)	2.57 (\pm 0.11)	-14.07 (\pm 0.52)	-23.3	-7.78
DZ4	0.50 (\pm 0.02)	1.4 (\pm 0.04)	-11.03 (\pm 0.41)	-14.1	-6.83
G4T4G3	0.26 (\pm 0.04)	0.90 (\pm 0.10)	-6.29 (\pm 1.24)	1.23	-6.65
G4T4G4	0.28 (\pm 0.20)	0.27 (\pm 0.06)	-10.36 (\pm 9.02)	-15.1	-7.32

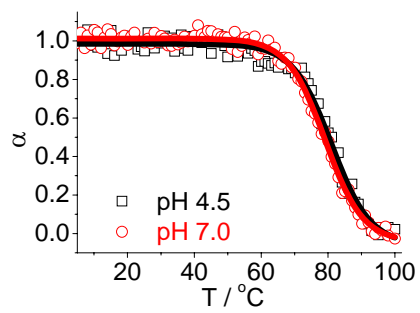


Figure S3. Melting curves of DZ4 (6 μM) at pH 4.5 and 7.0 in 50 mM PBS containing 100 mM K^+ .