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Supporting Information

Self-Assembly of G-Rich Oligonucleotides Incorporating a 3′–3′ Inversion of Polarity Site: A New Route Towards G-Wire DNA Nanostructures

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Supporting Information

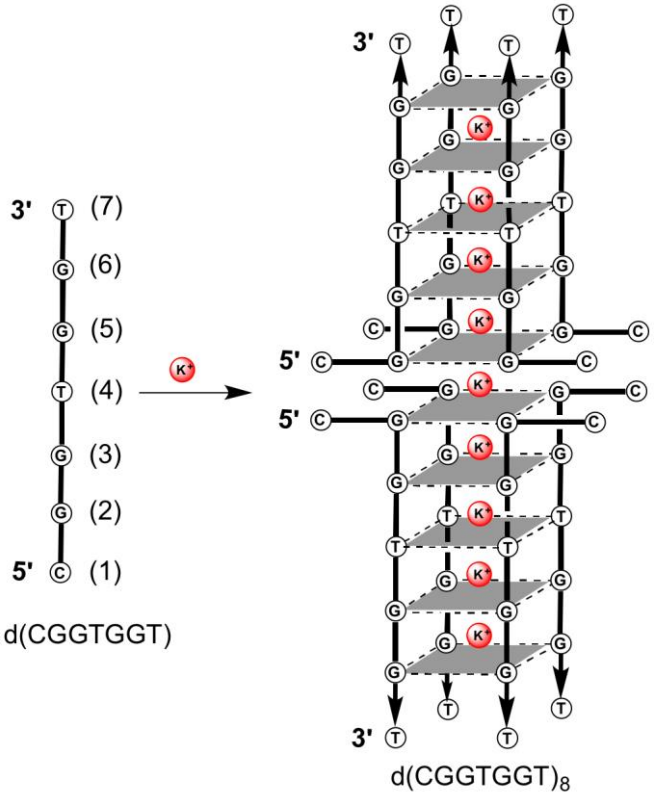

Figure S1. Schematic representations of single stranded ODN d(CGGTGGT) (a) and of its dimeric tetramolecular quadruplex assembly $d(CGGTGGT)_8$.

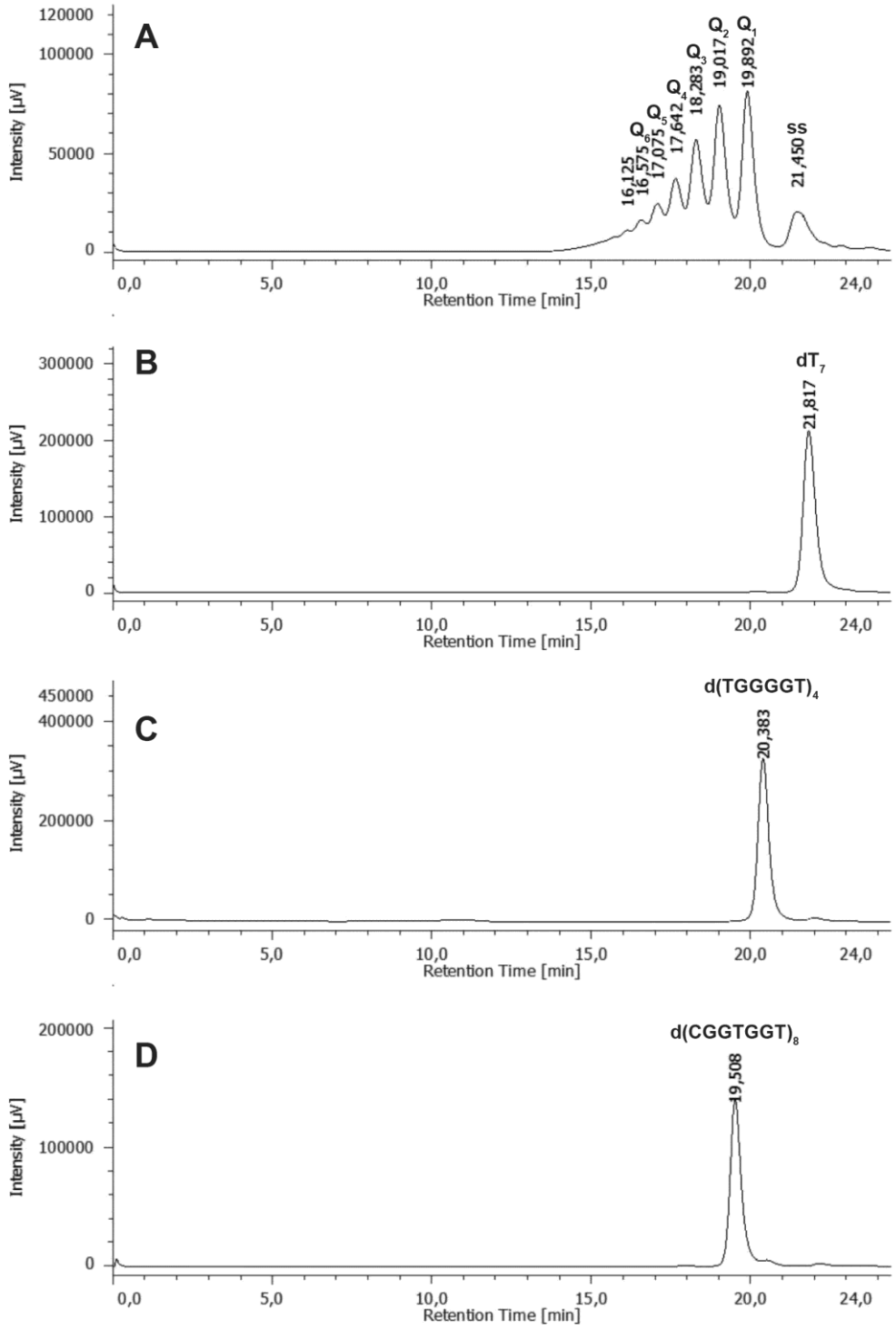

Figure S2. HPLC-SEC profiles of 0.1 mM **1** (A), dT_7 (B), dTGGGGT (C) and dCGGTGGT (D) annealed in 1.0 M K^+ buffer and stored at 4 °C for 24 h. ss = single strand.

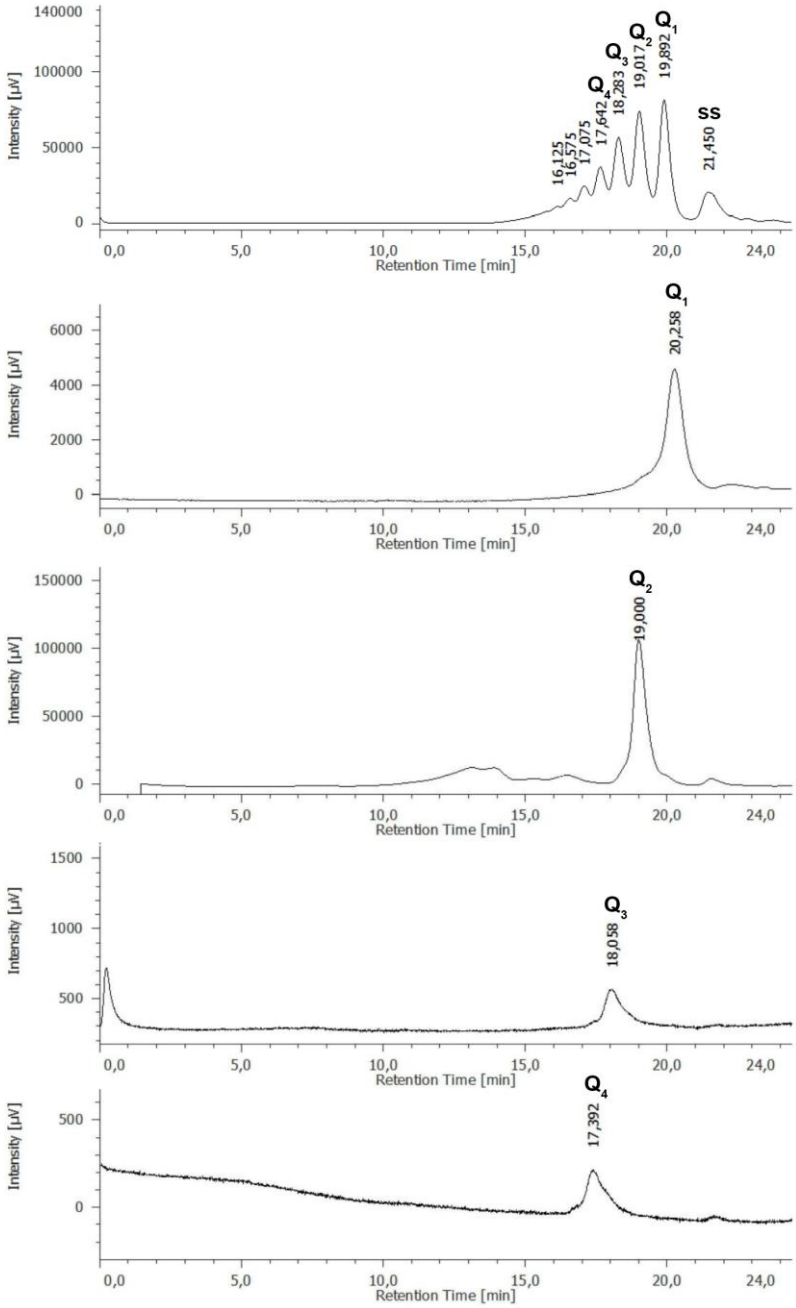

Figure S3. HPLC-SEC profiles of 0.1 mM **1** annealed in 1.0 M K^+ buffer and stored at 4 °C for 24 h and of $\mathbf{Q_1}$, $\mathbf{Q_2}$, $\mathbf{Q_3}$ and $\mathbf{Q_4}$ injected 24 h after their recovering from profile A (profiles B–E, respectively).

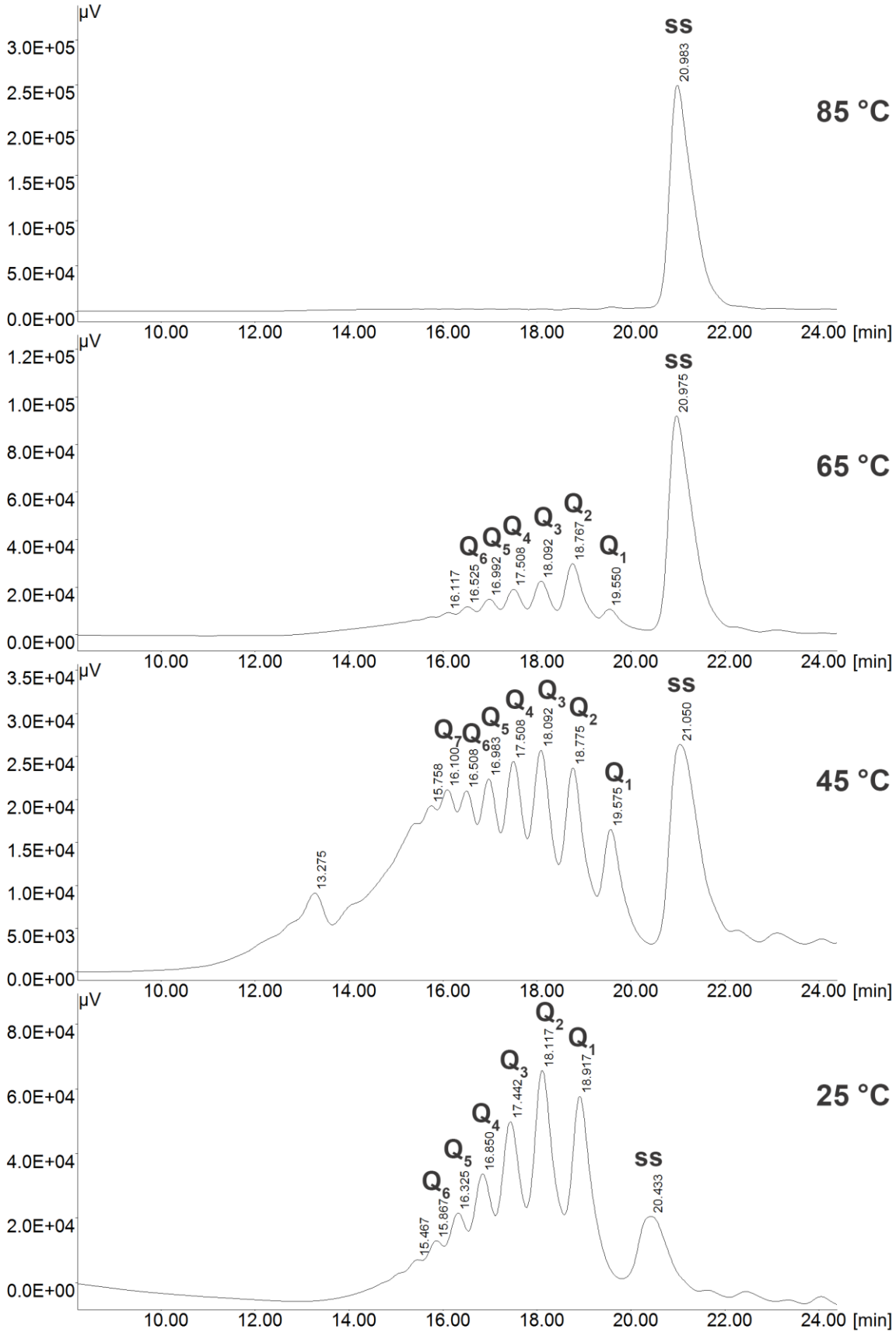

Figure S4. HPLC-SEC profiles of 0.1 mM **1** annealed in 1.0 M K^+ buffer and stored at 4 °C for 24 h before being injected 30 min after heating at 25, 45, 65 and 85 °C.

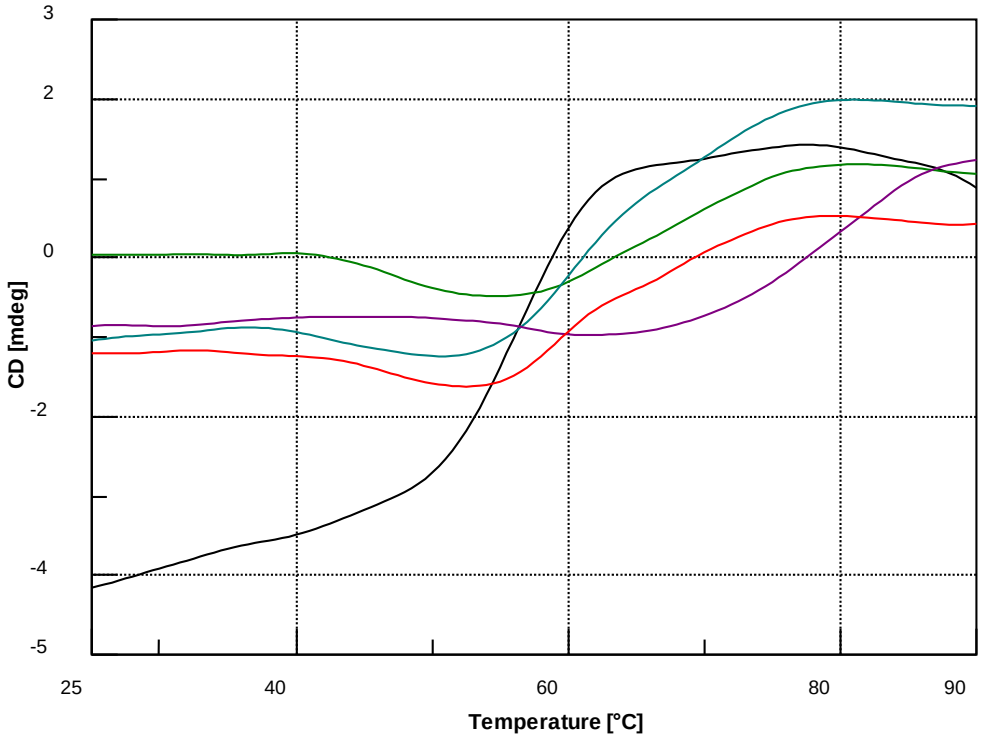

Figure S5. CD denaturation profiles of 0.1 mM **1** annealed in 1.0 M K^+ buffer ($\mathbf{Q_n}$, purple) and of the G-quadruplexes $\mathbf{Q_1}$ (black), $\mathbf{Q_2}$ (green), $\mathbf{Q_3}$ (red) and $\mathbf{Q_4}$ (cyan) isolated by HPLC-SEC from $\mathbf{Q_n}$. All curves were recorded at 268 nm, 24 h after isolation (for $\mathbf{Q_{1\text{-}4}}$) and storage at 4 °C

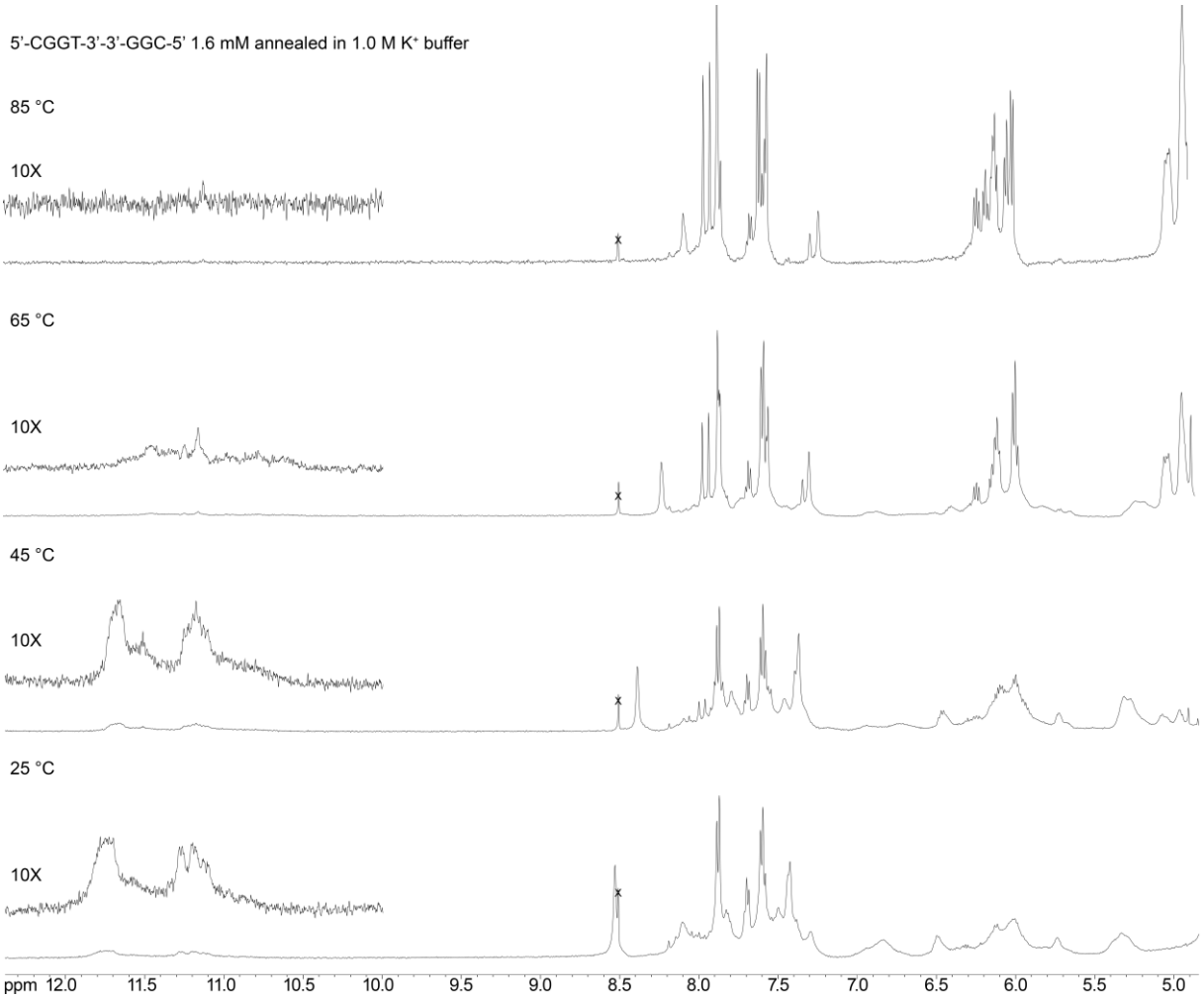

Figure S6 Imino, aromatic and anomeric protons regions of ^{1}H NMR spectra of 1.6 mM **1** annealed in 1 M K^+ buffer and recorded at 25, 45, 65 and 85 °C. The insets show the imino proton regions at 10× magnification.