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Electronic Supplementary Information

Stabilization *vs* Destabilization of G-quadruplex Superstructures: the role of Porphyrin Derivative having Spermine arms.

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Figure S1. UV spectra of the titration experiment of 2 μM GQ with increasing concentrations of H_2TCPPSpm4

Figure S2. CD spectra of the titration experiment of 2 μM GQ with increasing concentrations of H_2TCPPSpm4

Figure S3. RLS spectra of the titration experiment of 2 μM GQ with increasing concentrations of H_2TCPPSpm4

Figure S4. Comparison of H_2TCPPSpm4:GQ species CD spectra at different ratio and preparation methods.

Figure S5. ECD melting curves with bar errors

Figure S6. Gel electrophoresis analysis of the titration of $(TGGGGT)_4$ with 2 eq. of H_2TCPPSpm4.

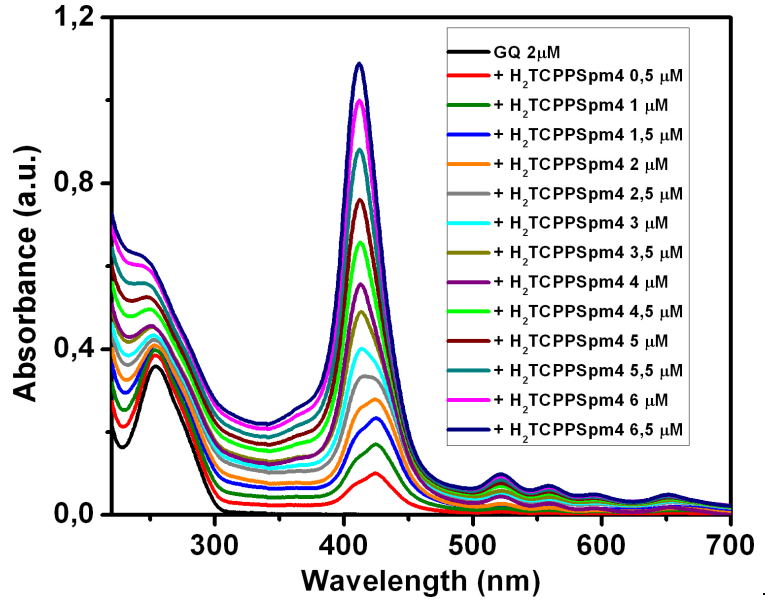

Figure S1. UV spectra in K^+ buffer of 2 µM GQ alone (black curve) and in the presence of different concentrations of H_2TCPPSpm4 from 0.5 µM to 6.5 µM.

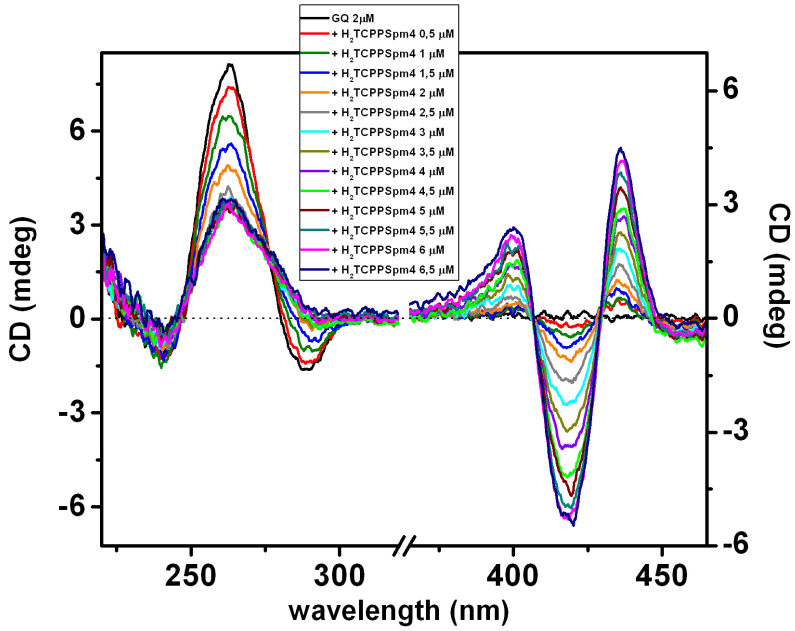

Figure S2. CD spectra in K^+ buffer of 2 µM GQ alone (black curve) and in the presence of different concentrations of H_2TCPPSpm4 from 0.5 µM to 6.5 µM.

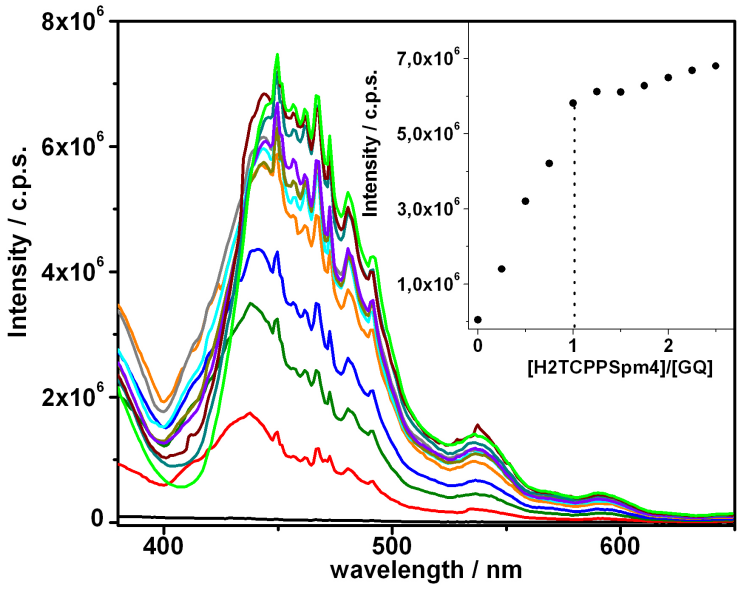

Figure S3. RLS spectra in K^+ buffer of 2 μM GQ alone (black curve) and in the presence of different concentrations of H_2TCPPSpm4 from 0.5 μM to 6.5 μM. Inset: RLS intensity variation at 450 nm vs [H_2TCPPSpm4]/[GQ] ratio.

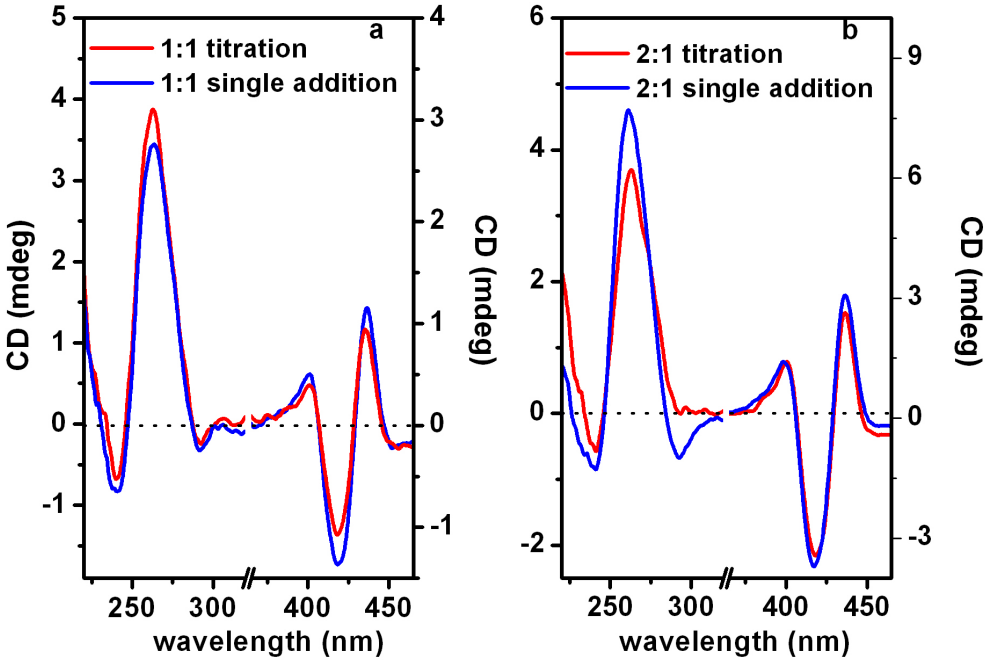

Figure S4. CD spectra in K^+ buffer of H_2TCPPSpm4:GQ species: a) reports the comparison of 1:1 species obtained by titration (solid red curve) and by single addition (dashed red curve) of 2μM H_2TCPPSpm4; b) reports the comparison of 2:1 species obtained by titration (solid blue curve) and single addition (dashed blue curve) of 4 μM H_2TCPPSpm4.

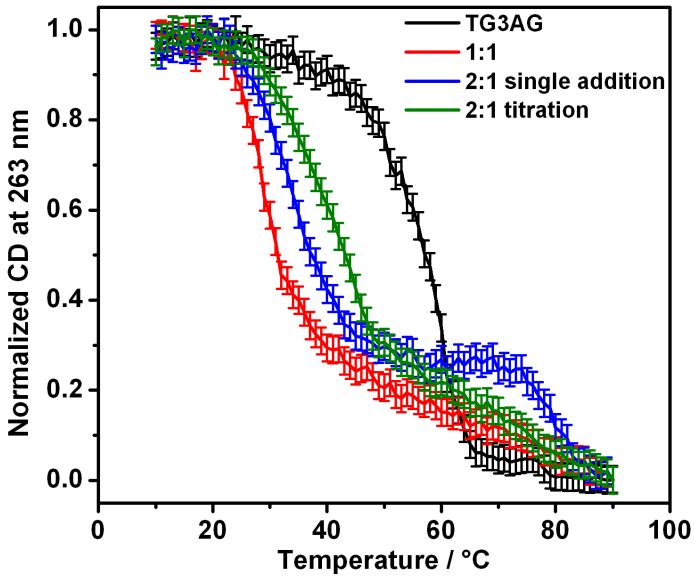

Figure S5. ECD melting curves of 2 μM $(TGGGAG)_4$ alone (black line) and in the presence of 2 μM (red line), 4 μM (blue line) or 4 μM by titration (green) $H_2TCPPSpm4$, respectively, in 200 mM K^+ buffer at 263 nm.

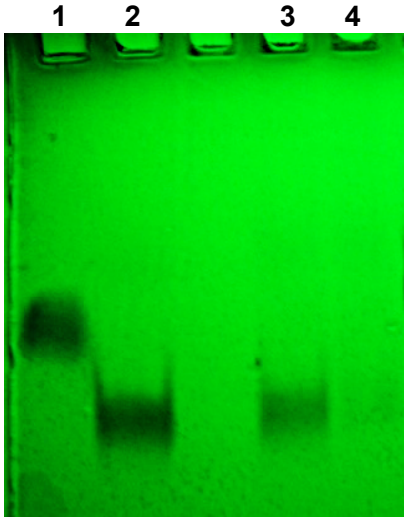

Figure S6. Gel electrophoresis analysis: lane 1 = running marker; lane 2 = 150 μM $(TGGGGT)_4$ annealed in 200 mM K^+ buffer; lane 3 = $H_2TCPPSpm4/(TGGGGT)_4$ 1:1 ratio by single addition; lane 4 = $H_2TCPPSpm4/(TGGGGT)_4$ 2:1 ratio by titration.