Supporting Information For

A Non-perturbing Probe of Coiled Coil Formation Based on Electron Transfer Mediated Fluorescence Quenching

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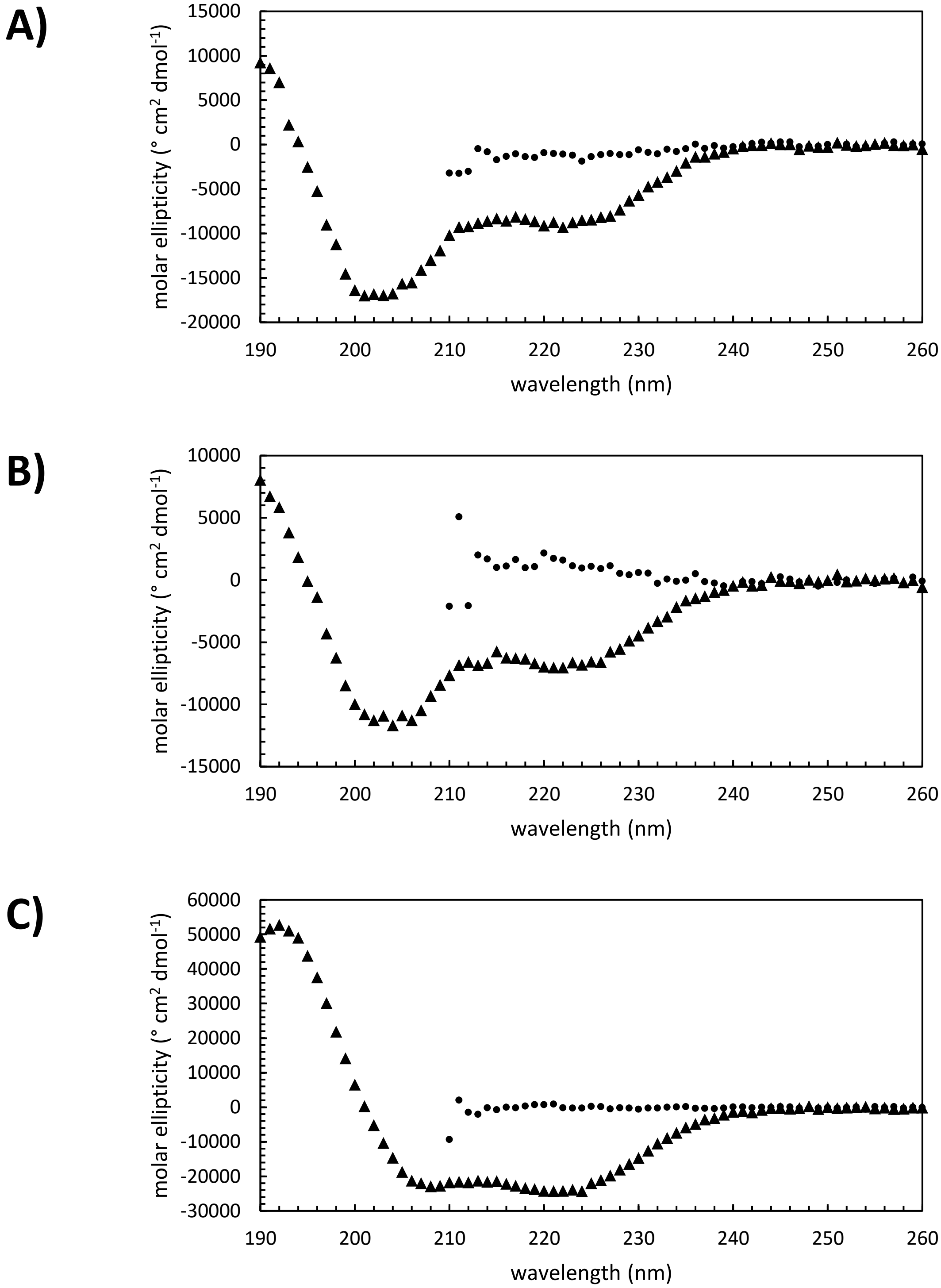

Figure S1. (A) Circular dichroism spectra of CC-19$F_{CN}A_N^{3.5}$ (35 µM) at 20 °C in phosphate buffer (10 mM, pH 7.4, triangles) and in urea (10 M, circles). **(B)** Circular dichroism spectra of CC-20$M_{Se}B_N^{3.5}$ (35 µM) at 20 °C in phosphate buffer (10 mM, pH 7.4, triangles) and in urea (10 M, circles). **(C)** Circular dichroism spectra of a mixed solution of CC-19$F_{CN}A_N^{3.5}$ and CC-20$M_{Se}B_N^{3.5}$ (1:1, 35 µM total peptide concentration) at 20 °C in phosphate buffer (10 mM, pH 7.4, triangles) and in urea (10 M, circles).

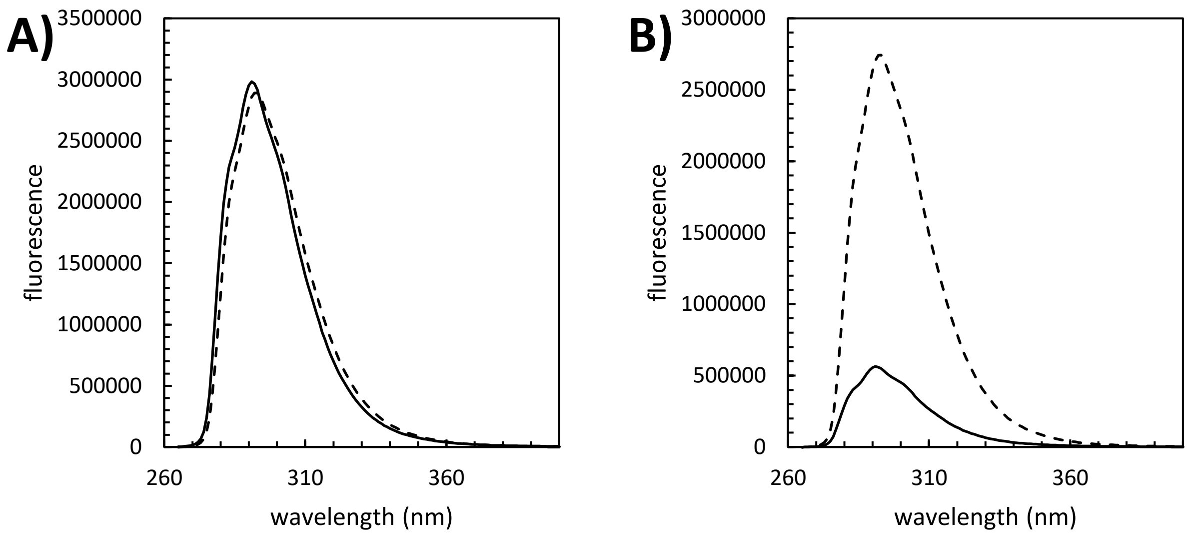

Figure S2. (A) Fluorescence emission spectra of CC-19$F_{CN}A_N^{3.5}$ (35 μM) at 20 °C in phosphate buffer (10 mM, pH 7.4, solid line) and in urea (10 M, dashed line). The excitation wavelength used was 240 nm. **(B)** Fluorescence emission spectra of a mixed solution of CC-19$F_{CN}A_N^{3.5}$ and CC-20$M_{Se}B_N^{3.5}$ (1:1, 70 μM total peptide concentration) at 20 °C in phosphate buffer (10 mM, pH 7.4, solid line) and in urea (10 M, dashed line). The excitation wavelength used was 240 nm.

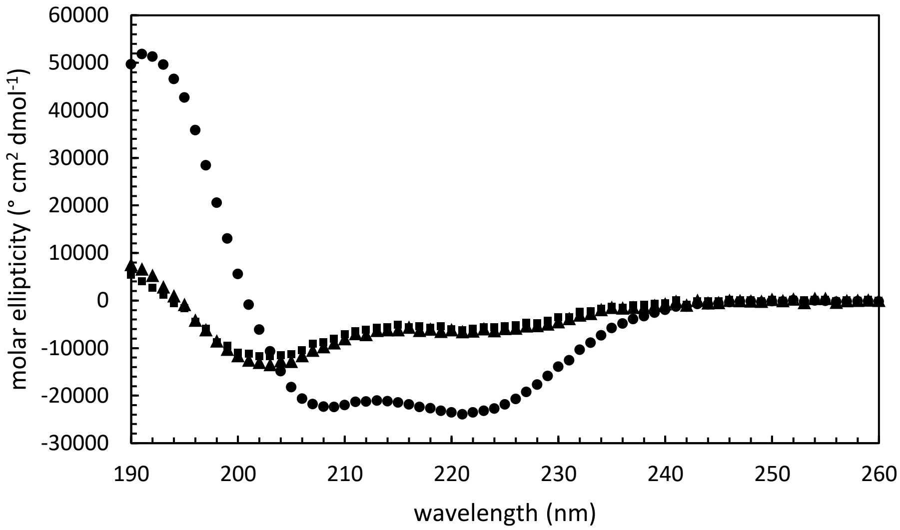

Figure S3. Circular dichroism spectra of CC-19W$A_N^{3.5}$ (triangles), CC-20$M_{Se}B_N^{3.5}$ (squares) and the dimer (circles) in phosphate buffer (10 mM, pH 7.4) at 20 °C with a 35 μM total peptide concentration.

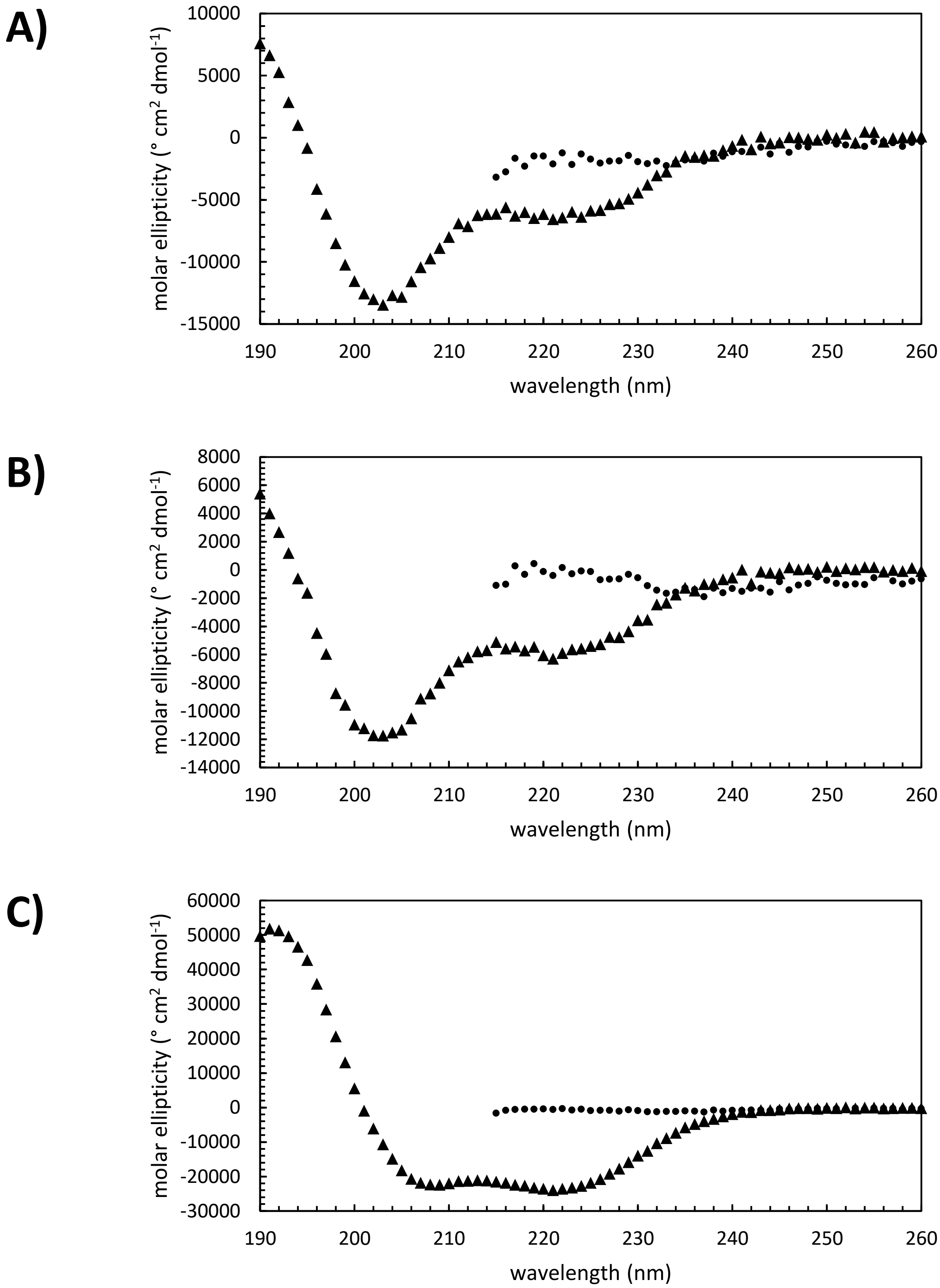

Figure S4. (A) Circular dichroism spectra of CC-19WA$_N^{3.5}$ (35 µM) at 20 °C in phosphate buffer (10 mM, pH 7.4, triangles) and in urea (10 M, circles). **(B)** Circular dichroism spectra of CC-20M$_{Se}$B$_N^{3.5}$ (35 µM) at 20 °C in phosphate buffer (10 mM, pH 7.4, triangles) and in urea (10 M, circles). **(C)** Circular dichroism spectra of a mixed solution of CC-19WA$_N^{3.5}$ and CC-20M$_{Se}$B$_N^{3.5}$ (1:1, 35 µM total peptide concentration) at 20 °C in phosphate buffer (10 mM, pH 7.4, triangles) and in urea (10 M, circles).

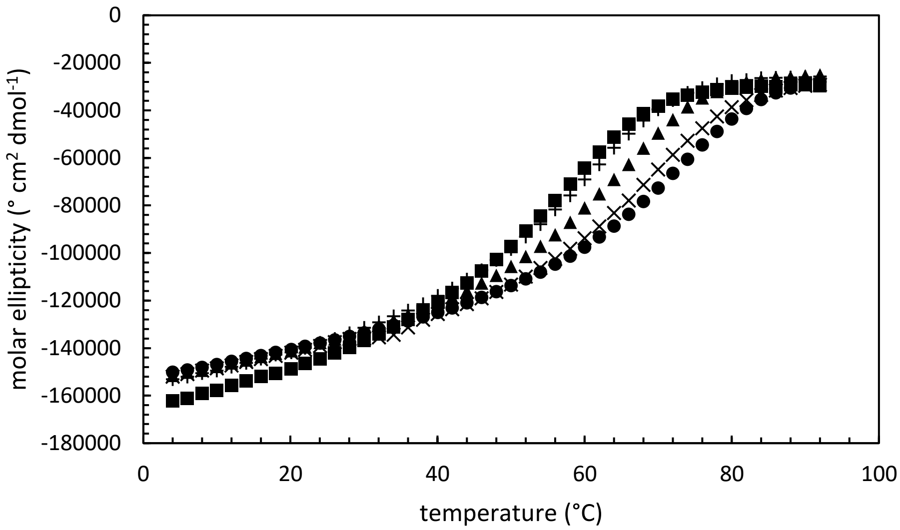

Figure S5. Circular dichroism monitored thermal unfolding curves for the CC-19$F_{CN}A_N^{3.5}$/CC-20$M_{Se}B_n^{3.5}$ dimer at 202 µM (circles), 101 µM (x), 49 µM (triangles), 19 µM (+) and 8 µM (squares). Experiments were performed in phosphate buffer (10 mM, pH 7.4) at 20 °C with a monomer ratio of 1:1. Curves were fit to equation (1) to determine T_M, the midpoint of the unfolding transition.

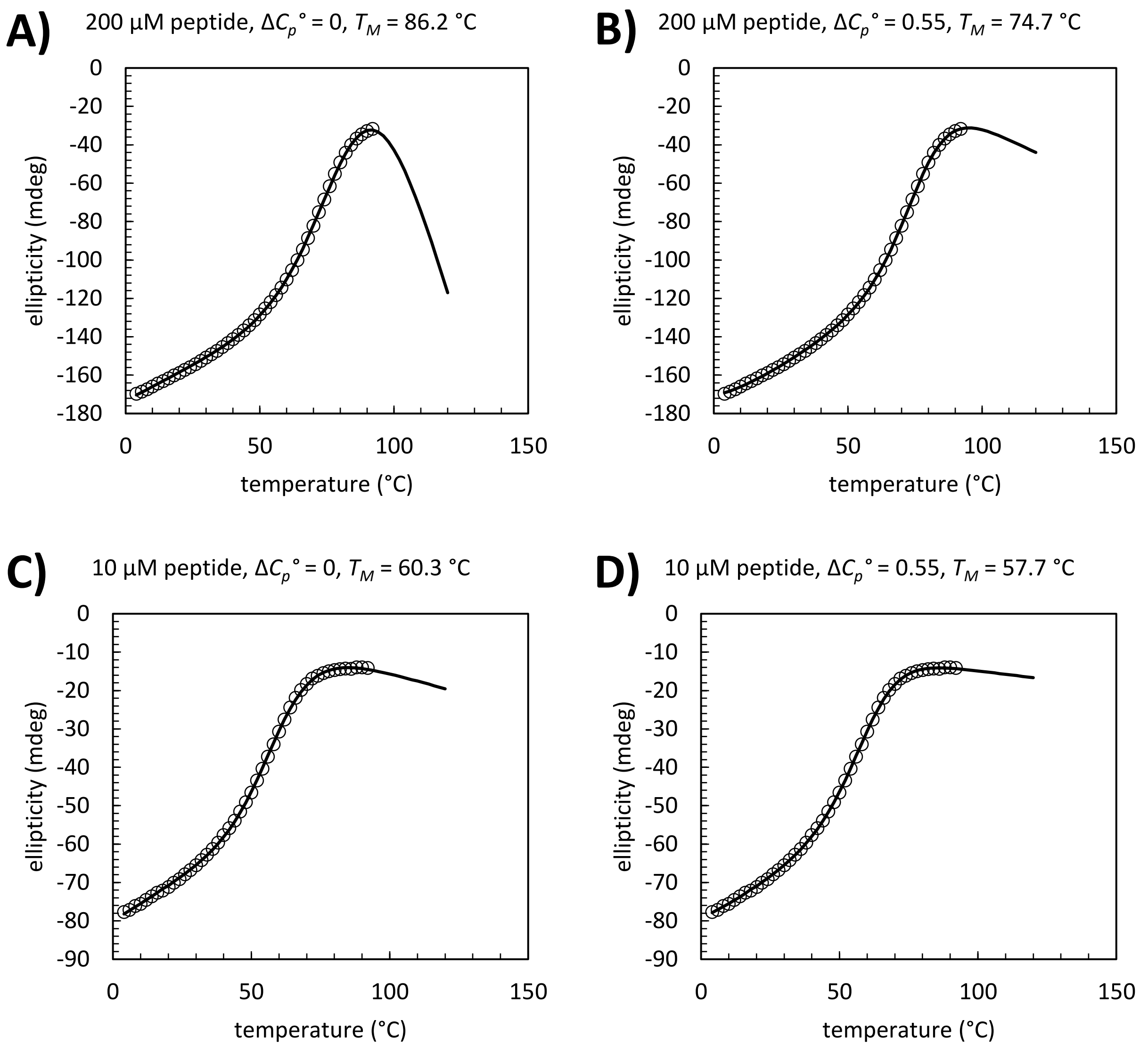

Figure S6. Dependence of apparent T_M values on the choice of $\Delta C_p°$ illustrated for [*CC*] = 200 µM and [*CC*] = 10 µM. **(A)** Fit to the 200 µM data with $\Delta C_p°$ = 0 kcal mol^{-1} K^{-1} yields a T_M of 86.2 °C, but also leads to a nonphysical post-transition baseline. **(B)** Fit to the 200 µM data with $\Delta C_p°$ = 0.55 kcal mol^{-1} K^{-1} yields T_M = 74.7 °C with a more reasonable post-transition baseline. **(C)** and **(D)** display fits to melting data collected at [*CC*] = 10 µM. The choice of $\Delta C_p°$ has less dramatic effects.