

# How long is too long ? Effects of loop size on G-quadruplex stability

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## *Supplementary information*

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### ***Figures S1-S8: TDS, CD and UV melting experiments.***

Each figure corresponds to a different series. The sequences were tested at 4  $\mu$ M strand concentration. All figures followed the same convention: left panels in 100 mM KCl; Right panels in 100 mM NaCl. Both buffers contained 10 mM lithium cacodylate at pH 7.2.

**a-b) Thermal difference spectra.** Thermal difference spectra result from the difference between the absorbance recorded at  $88 \pm 2$  °C and at  $04 \pm 2$  °C. They were recorded over the 220-335 nm wavelength range.

**c-d) Circular dichroism spectra.** (available for all but 2 series) CD spectra were recorded at 10-25°C (in K<sup>+</sup>) or 4-25°C in Na<sup>+</sup> (to maximize quadruplex formation in the case of relatively unstable quadruplexes) on a JASCO-810 spectropolarimeter using 1 cm path length quartz cuvettes. Oligonucleotides were prepared as a 4  $\mu$ M and annealed by heating to 90°C for 2 min, followed by slow cooling.

**e-f) UV melting profiles** Absorbance at 295 nm is plotted as a function of temperature.

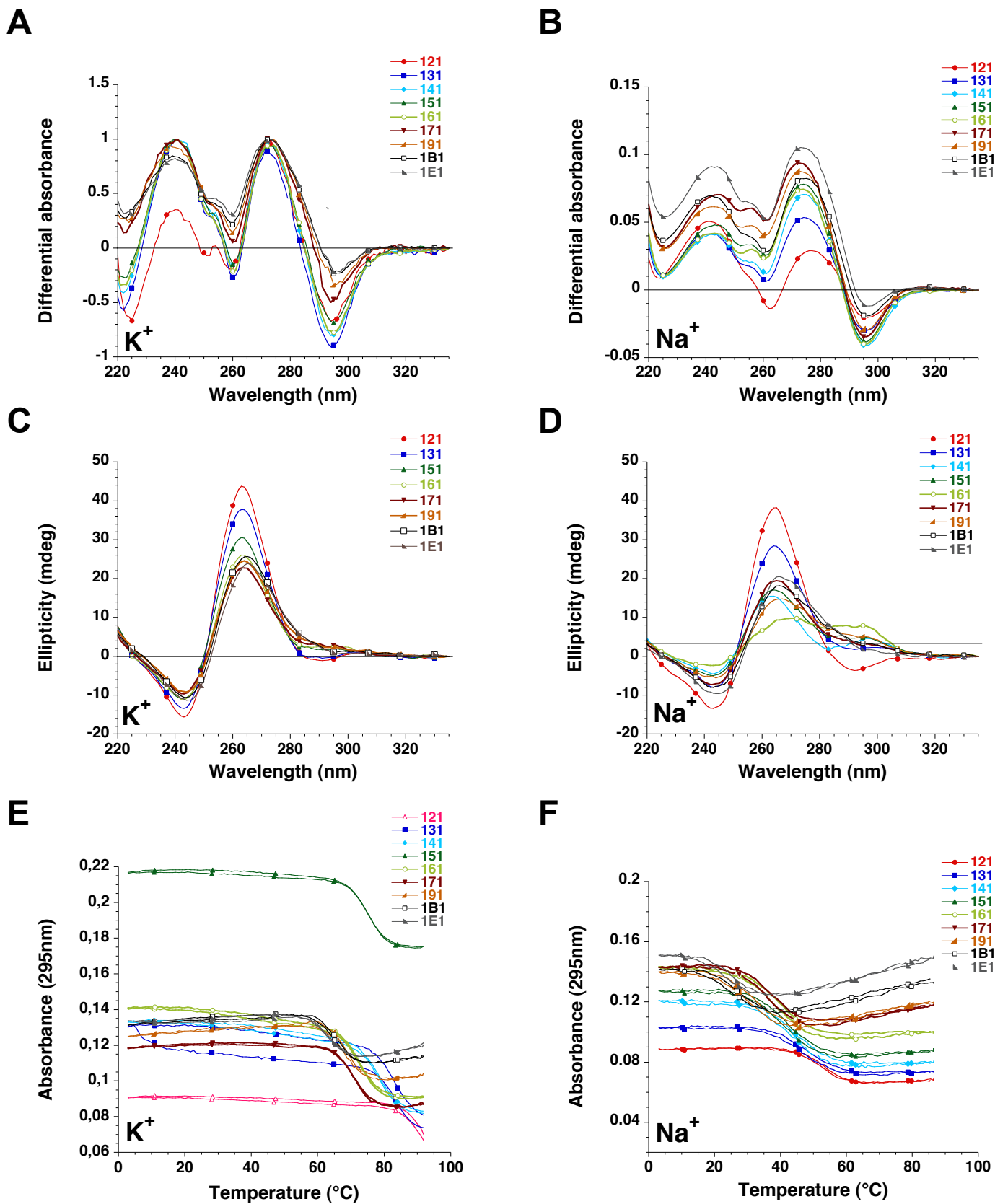


Figure S1

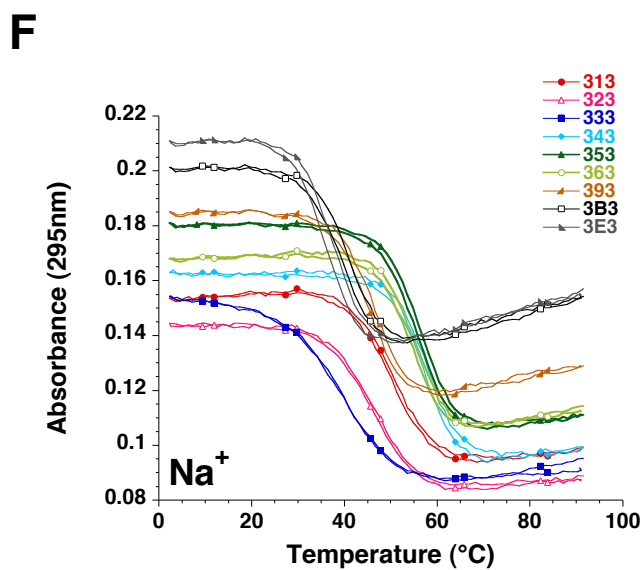
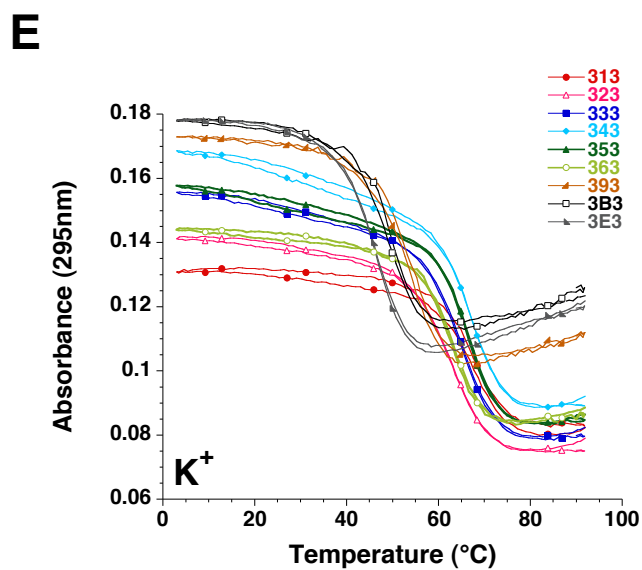
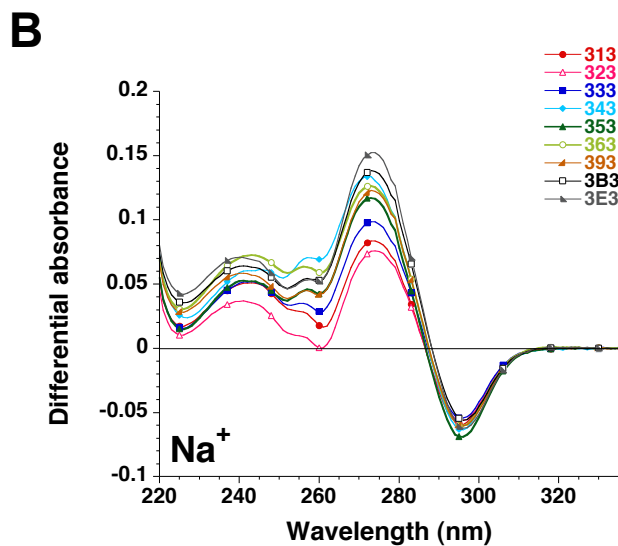
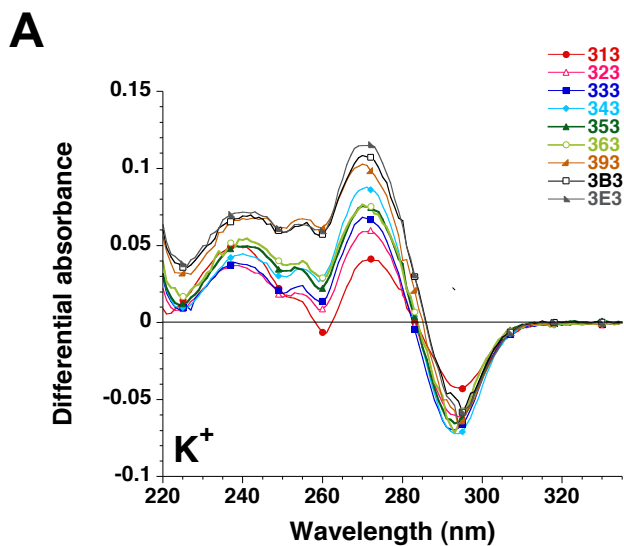


Figure S2

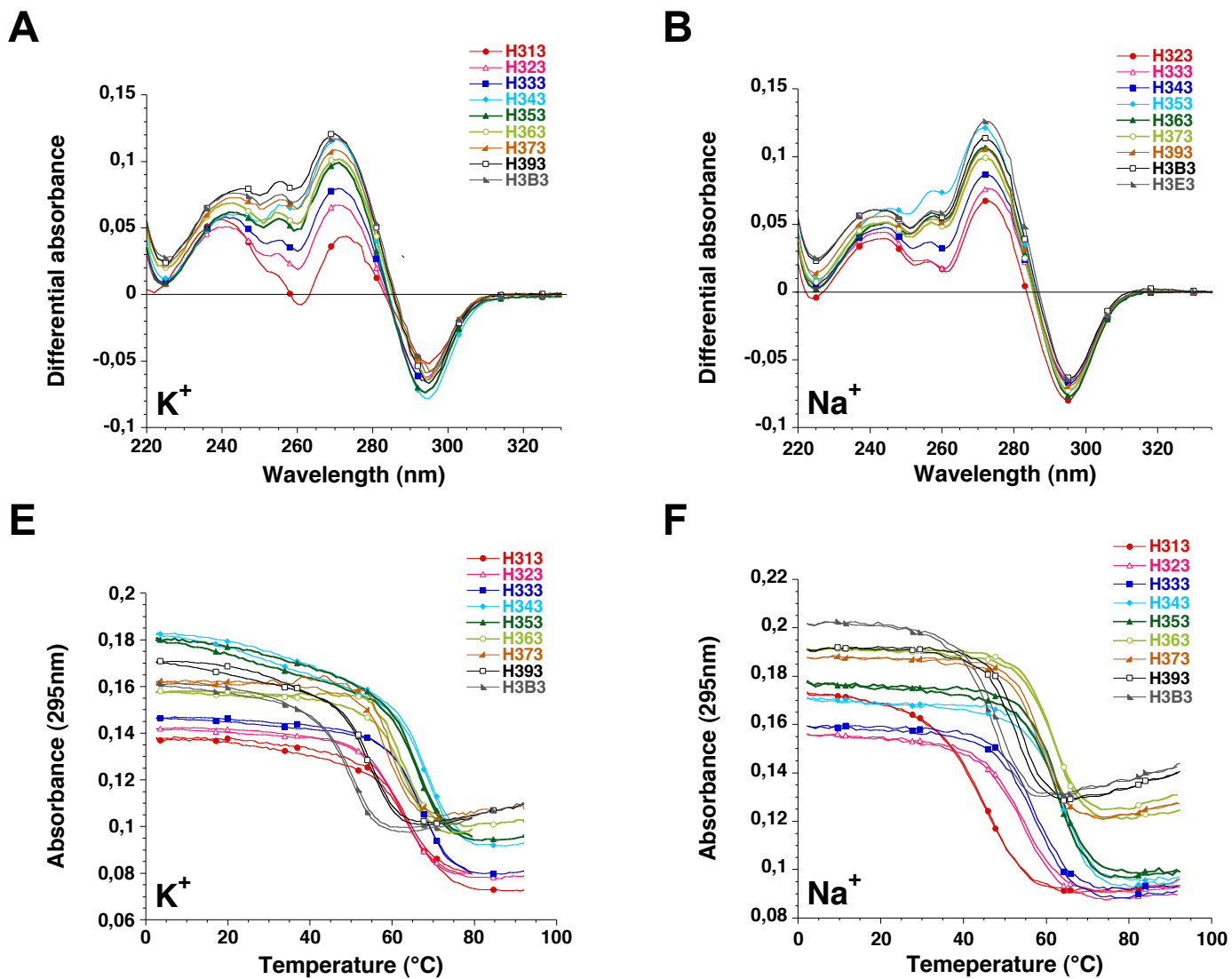


Figure S3

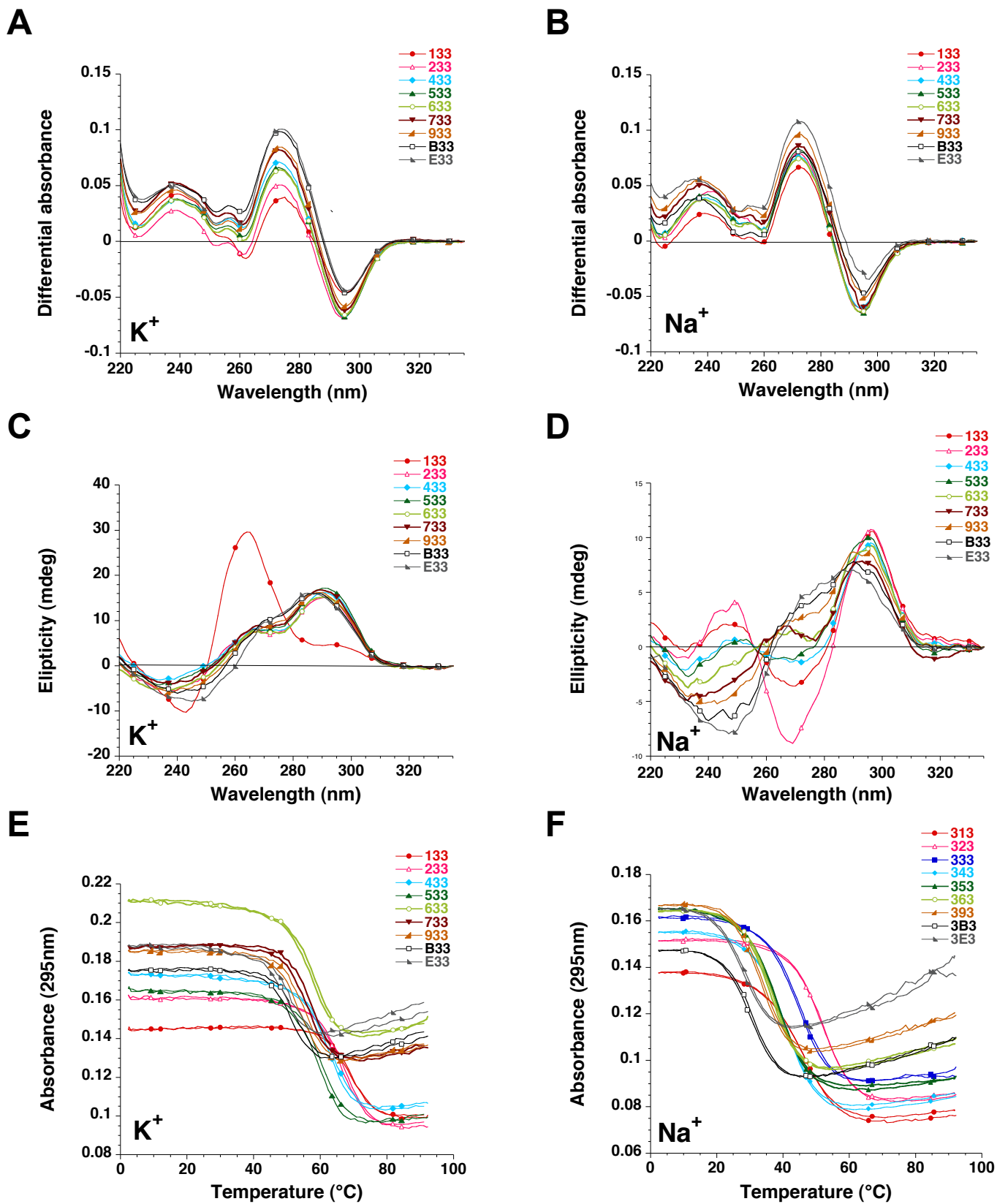


Figure S4

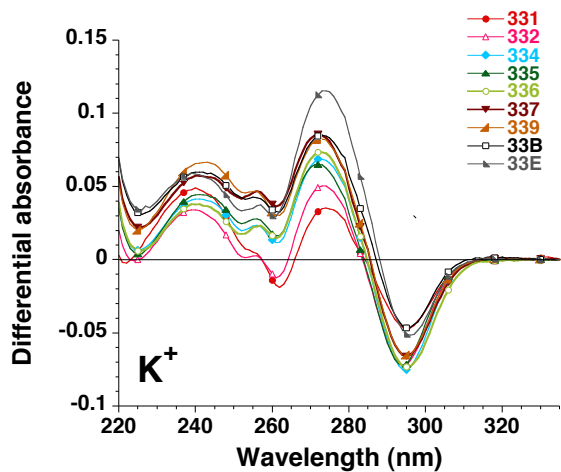
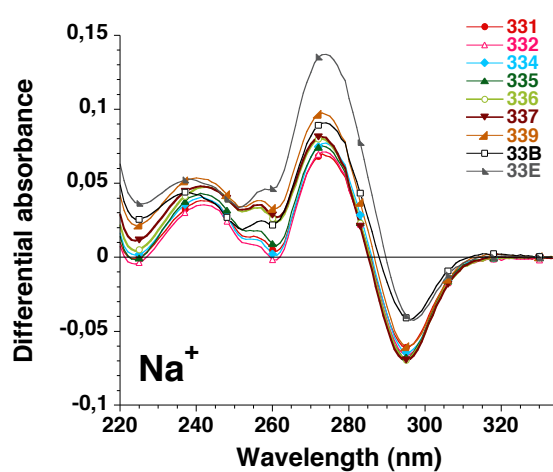
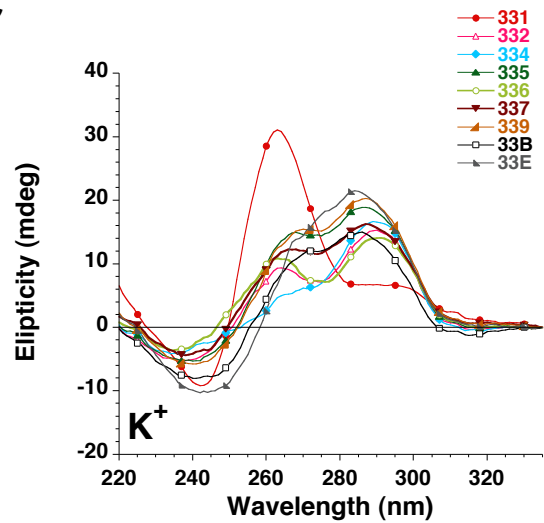
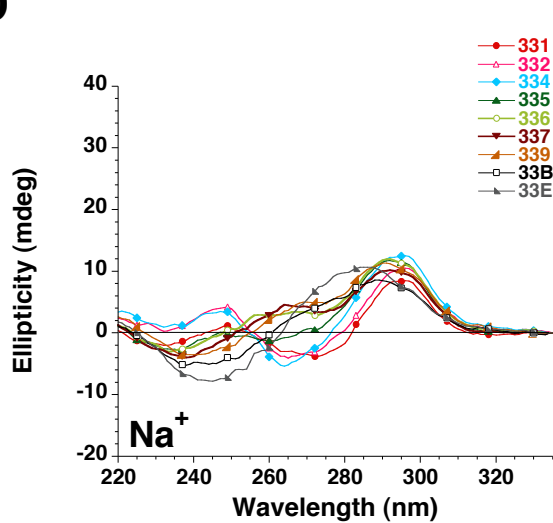
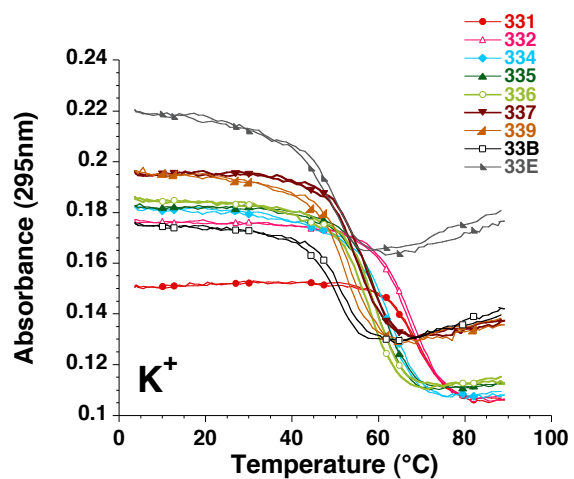
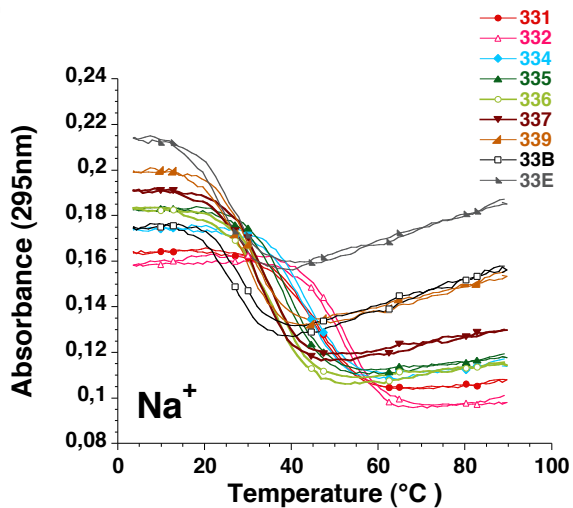
**A****B****C****D****E****F**

Figure S5

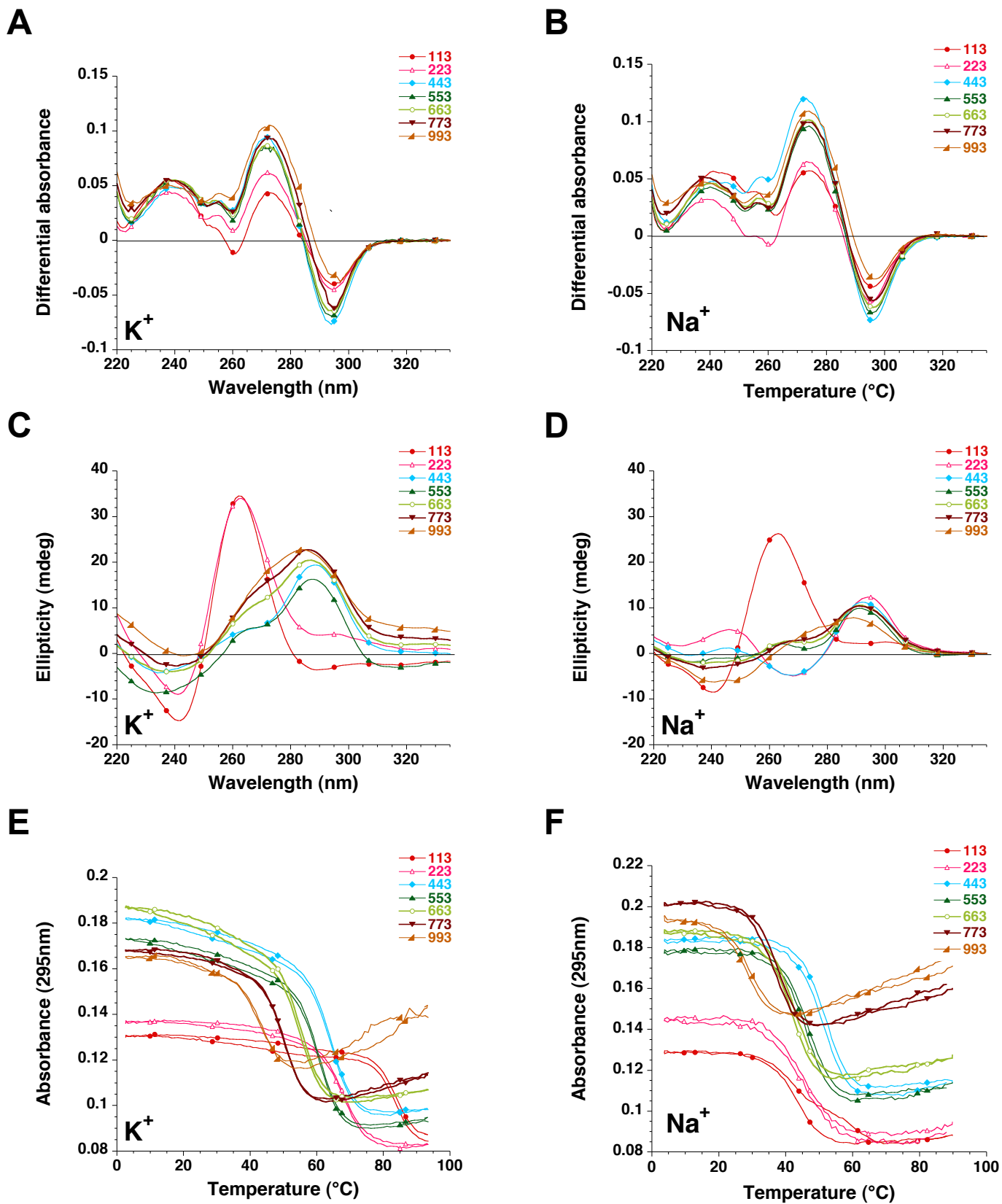


Figure S6

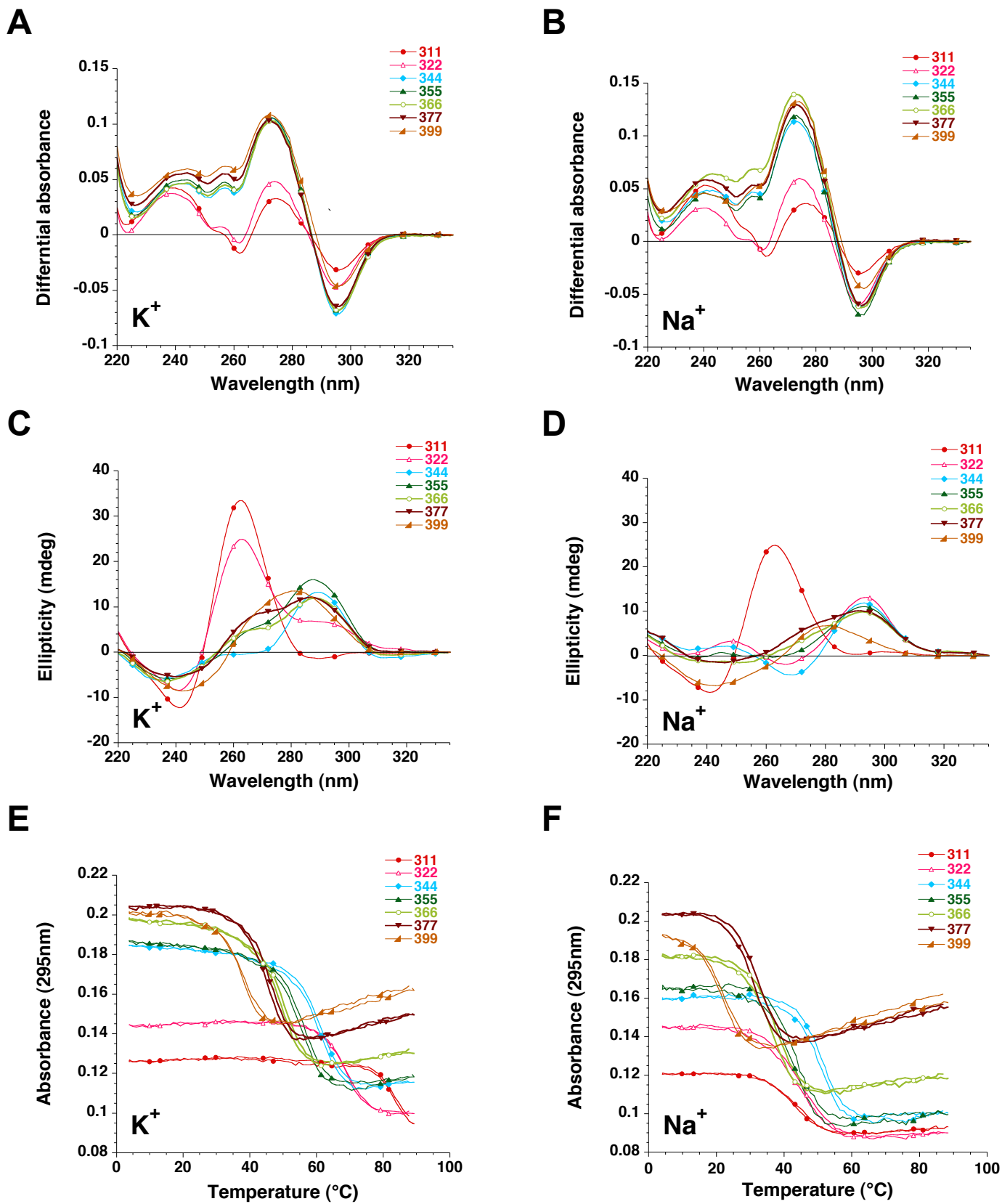


Figure S7



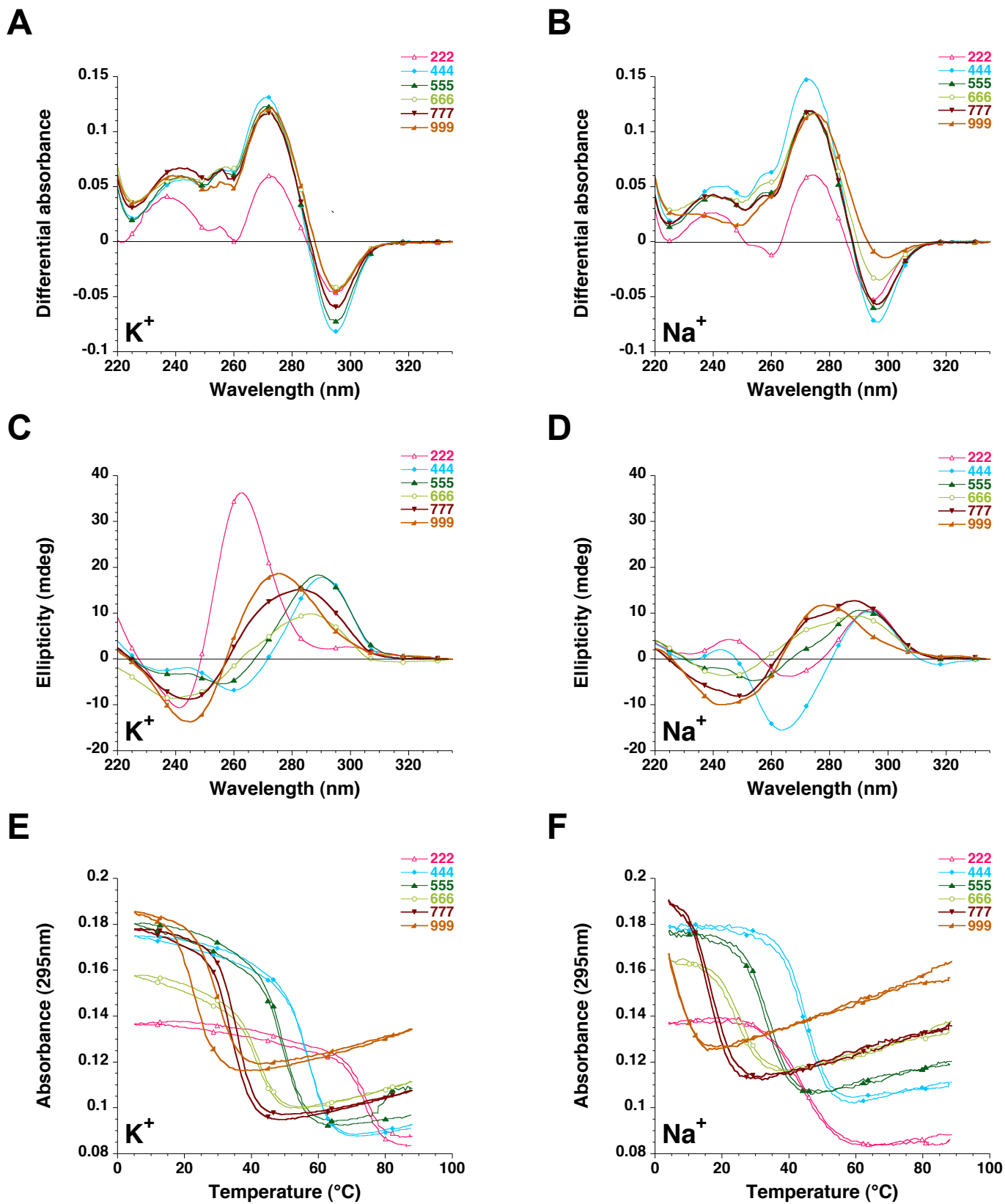


Figure S8