Supplementary Data Material:

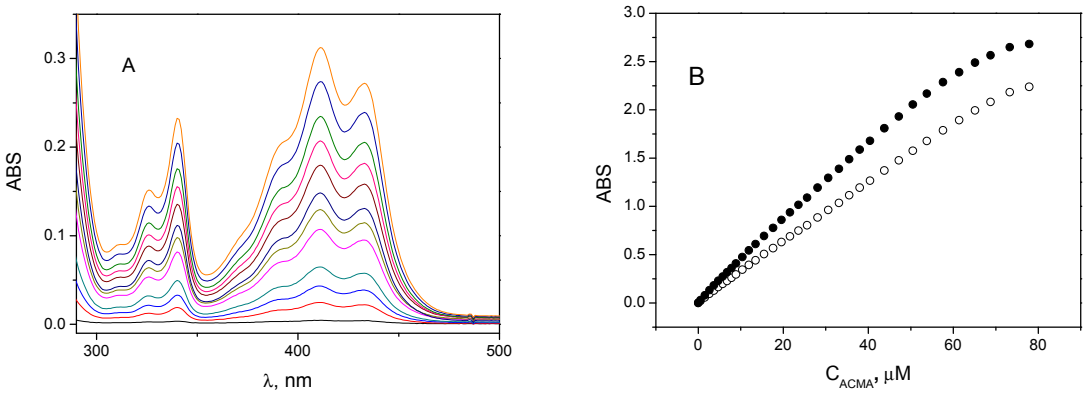

Fig. S1 A) Absorbance spectra of ACMA solutions, C_{ACMA} = 0.5 - 80 μM, pH = 7.0, I = 0.1 M and T = 25°C. B) Representation of absorbance values vs ACMA concentration. (●) λ = 275 nm and (○) λ = 260 nm.

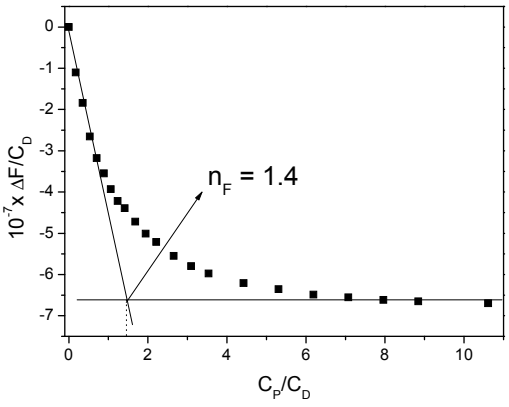

Fig. S2 Site Size determination for de CT-DNA/ACMA system by fluorescence titration. pH = 7.0, I = 0.01 M, T = 25ºC, λ_{exc}= 419 nm, λ_{em}= 477 nm. The intersection of the straight lines yields n, the site size.

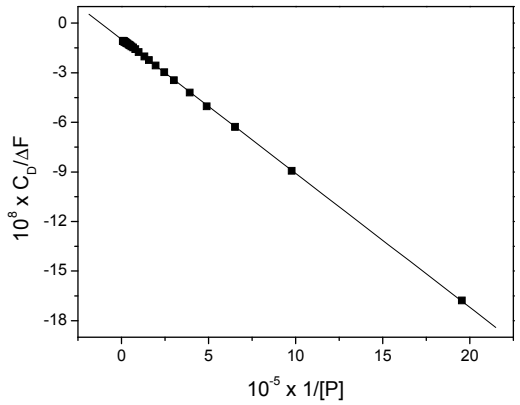

Fig. S3 Fit of a spectrofluorimetric titration for the CT-DNA/ACMA system to eqn 3. C_D^0 = 1.50 μM, I = 0.1 M, pH = 7.0, T = 25°C, λ_{exc} = 419 nm and λ_{em} = 477 nm.

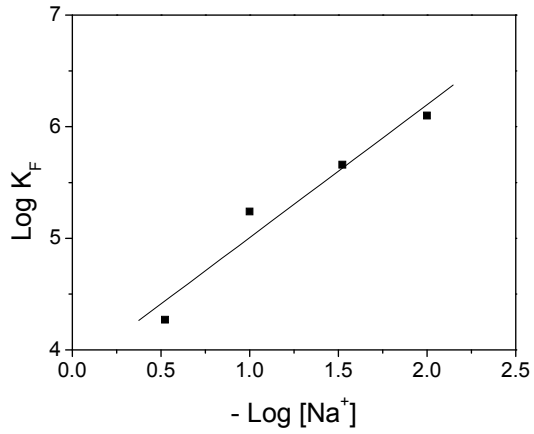

Fig. S4 Salt effect on the equilibrium constant, *K*, for ACMA binding to CT-DNA, pH = 7.0 and T = 25°C.

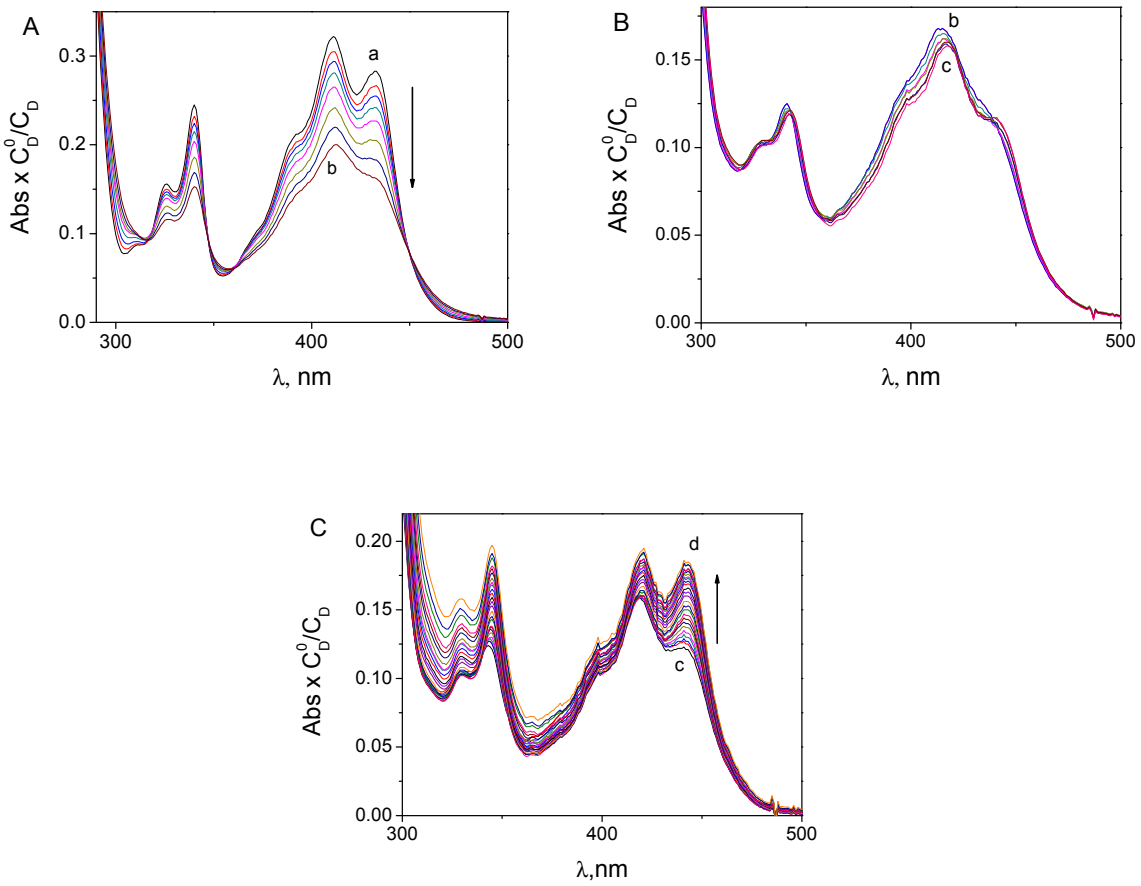

Fig. S5: Absorbance spectra of the CT-DNA/ACMA system recorded during titration at A) $0 \leq C_P/C_D \leq 0.9$; B) $0.9 \leq C_P/C_D \leq 2.2$**;** C) $C_P/C_D \geq 2.2$. $C_D^0 = 5.37 \times 10^{-5}$M, $C_P = 7.41 \times 10^{-4}$ M. pH = 7.0, I = 0.1 M and T = 25°C.

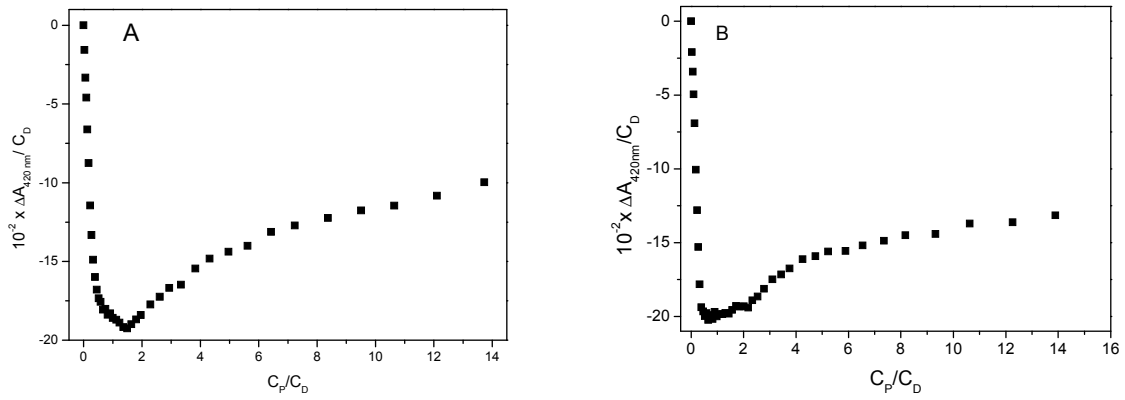

Fig. S6 Absorbance binding isotherm for the CT-DNA /ACMA system. $C_D^0 = 54$ μM, pH = 7.0, T = 25°C. A) I = 0.01 M; B) I = 2.5 mM.

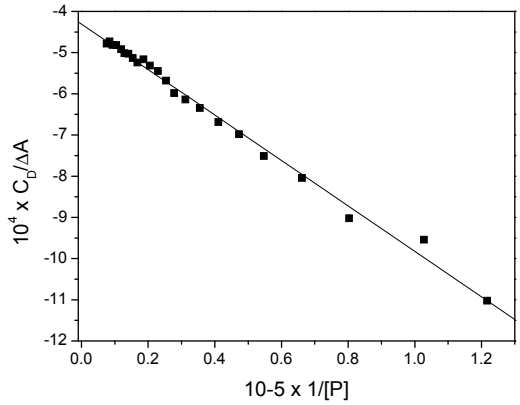

Fig. S7 Absorbance titration data fitted according to eqn 3

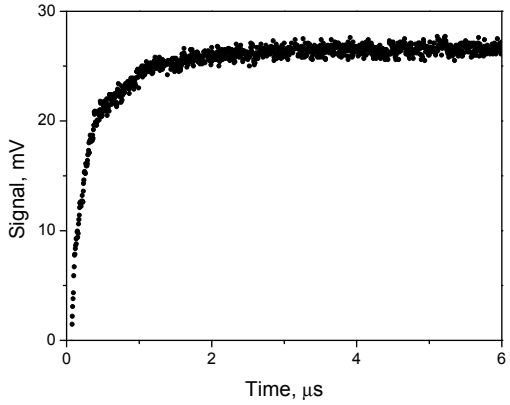

Fig. S8 T-jump relaxation curve for the CT-DNA/ACMA system, I = 0.1 M, pH = 7.0, T = 25°C, λ_{exc} = 420 nm, λ_{em} = 480 nm, C_D = 1.26×10^{-5} M and $C_P = 1.50 \times 10^{-4}$ M.

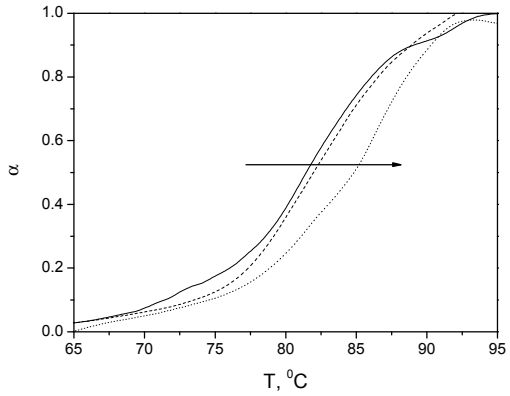

Fig. S9 Melting curves at different C_D/C_P ratios, $C_P = 1.19 \times 10^{-5}$ M, pH = 7.0, T = 25°C, I = 0.1 M λ = 260 nm. Solid line in absence of ACMA, dash line at $C_D/C_P = 0.05$ and dot line at $C_D/C_P = 0.11$. The α value is calculated from the denaturation curve as $\alpha = (ABS - ABS_D)/(ABS_S - ABS_D)$, where ABS_D, ABS_S and ABS stand for the absorbance of the double, single strands and mixture, respectively.

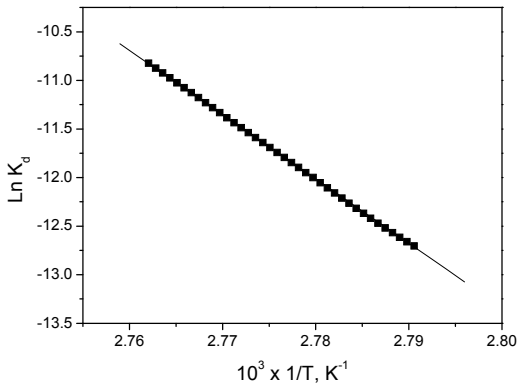

Fig. S10 van't Hoff plot for the denaturation process. $C_D/C_P = 0.11$, $C_P = 1.19 \times 10^{-5}$ M, pH = 7.0, T = 25°C, I = 0.1 M. The denaturation constant, K_d, is defined as $K_d = 4C_0\alpha^2/(1-\alpha)$.

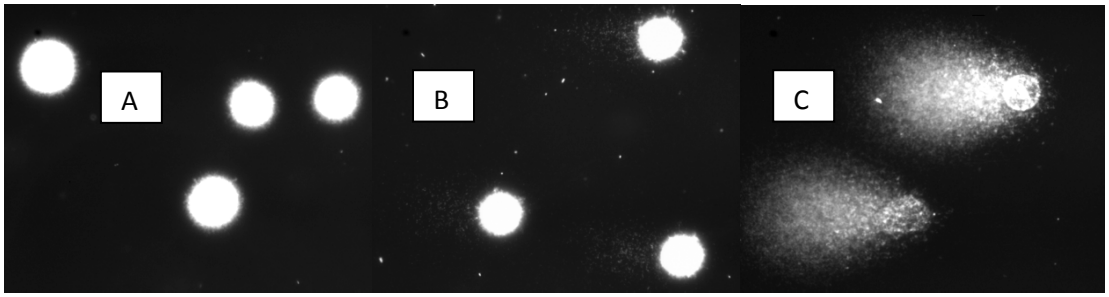

Fig. S11 Recorded images at 400× magnification, (A) negative control, (B) ACMA 3.30 μM and (C) positive control: H_2O_2 250 μM