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Supporting Information

Photophysical properties of N-alkylated aza-helicene derivatives as DNA intercalators: counterion effects

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NMR data 2

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NMR data (Chemical shift (δ, ppm, reference internal TMS) and coupling constants (Hz)) of **1a** in different solvent.

	(**1a**) $CDCl_3$ d (ppm) J(Hz)	(**1a**) CD_3OD d (ppm) J(Hz)
H1	8.79 dd 1.4; 8.5	8.77 dd 1.5; 8.6
H2	7.65 ddd 1.2; 7.1; 8.5	7.75-7.72 m
H3	8.01 ddd 1.4; 7.1; 8.7	8.11 ddd 1.5; 7.1; 8.7
H4	8.31 dd 1.2; 8.7	8.57 dd 1.2; 8.7
H6	11.65 s	10.14 s
H7	8.78 d 8.3	8.40 d 8.3
H8	8.22 d 8.3	8.38 d 8.3
H9	7.98 d 8.7	7.98 d 8.6
H10	8.24 d 8.7	8.37 d 8.6
H11	8.07 dd 1.4; 8.3	8.17 dd 1.5; 8.1
H12	7.69 ddd 1.2; 7.0; 8.3	7.75-7.72 m
H13	7.44 ddd 1.4; 7.0; 8.5	7.47 ddd 1.5; 7.0; 8.5
H14	8.40 br d 8.5	8.40 br d 8.5
CH_3	5.02 s	5.02 s

The data are in agreement with literature data [C. Bazzini, et al. , *Eur. J. Org. Chem.*, 2005 1247-1257] obtained for the Aza[5]helicene, parent compund. In the present experimental conditions, no evidences for the counterion effects on the ^{1}H NMR data were observed.

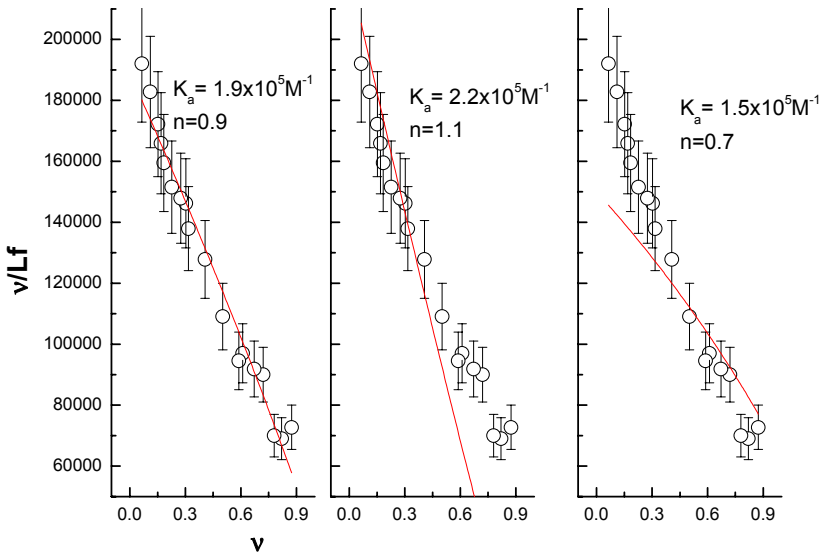

Figure SI1. Scatchard-plots for **1a** DNA system (circle) and fitting curves determined by use of McGhee Von Hippel model (red line) obtained by no constrains on binding parameters (left panel) and setting the n (middle panel) and K_a (right panel) values outside the experimental errors.

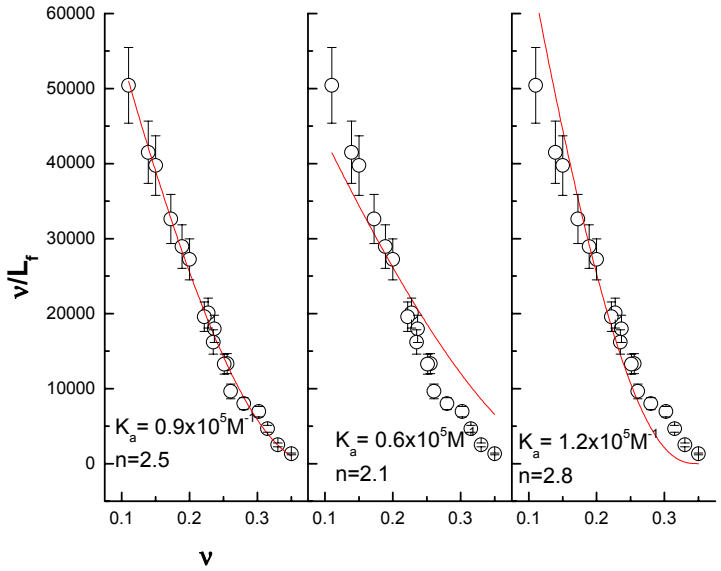

Figure SI2. Scatchard-plots for **1b** DNA system (circle) and fitting curves determined by use of McGhee Von Hippel model (red line) obtained by no constrains on binding parameters (left panel) and setting the n (middle panel) and K_a (right panel) values outside the experimental errors.

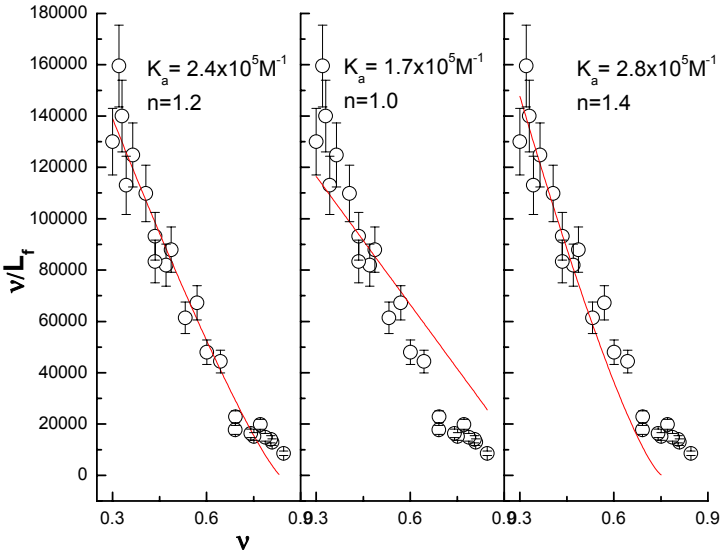

Figure SI3. Scatchard-plots for **1c** DNA system (circle) and fitting curves determined by use of McGhee Von Hippel model (red line) obtained by no constrains on binding parameters (left panel) and setting the n (middle panel) and K_a (right panel) values outside the experimental errors.

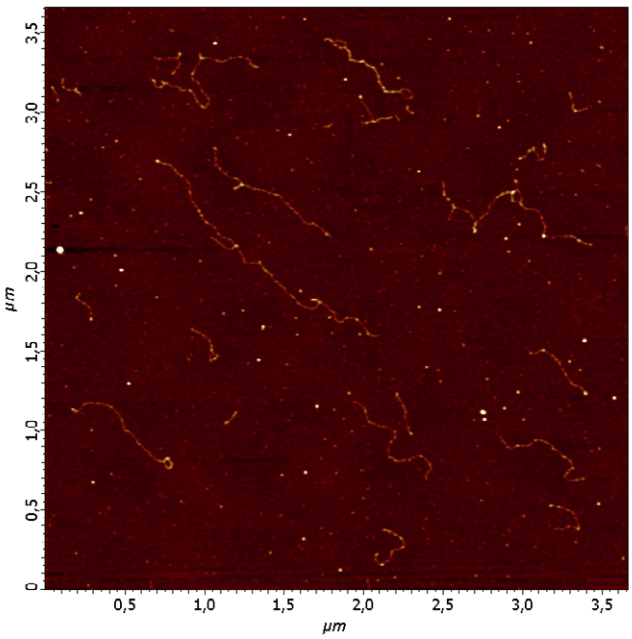

Figure SI4.AFM images of plasmid DNA in the presence of **1a.** and length distribution histogram.

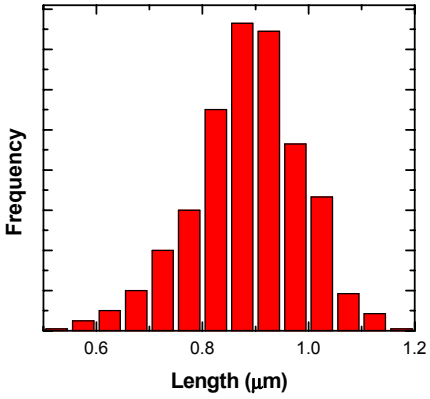

Figure SI5. DNA length distribution histogram in the presence of **1a**

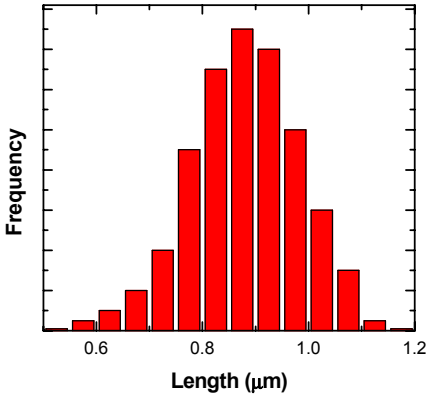

Figure SI6. DNA length distribution histogram in the presence of **1c**