Supporting Information

Supplemental information to the manuscript:

Aggregation Behavior of Nitrophenoxy-tailed Quaternary Ammonium Surfactants

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The supporting information provides additional experimental results. These results are complementary and do not present any novel finding or facts exceeding the principal information of the paper. Nevertheless, the results obtained for an extended experimental range may be of interest for some readers. Moreover, they can be taken as further justification of the discussion and conclusions.

Table S1. The observed ^{1}H Chemical Shifts Assignments (in ppm) of N10TAB at different concentrations

concentration (mM)	proton				
	H_a	H_b	H_c	H_g	H_h
1.0	8.119 8.095	6.972 6.949	4.067 4.051 4.034	3.146[a]	2.945
1.5	8.120 8.096	6.972 6.949	4.067 4.051 4.035	3.148[a]	2.947
2.0	8.120 8.096	6.972 6.949	4.067 4.051 4.034	3.148[a]	2.948
3.0	8.119 8.095	6.972 6.949	4.067 4.051 4.035	3.149[a]	2.948
4.0	8.115 8.093	6.969 6.946	4.063 4.047 4.031	3.148[a]	2.948
5.0	8.112 8.089	6.965 6.942	4.060 4.044 4.028	3.148[a]	2.948
6.0	8.104 8.081	6.957 6.934	4.050 4.034 4.018	3.149[a]	2.950
8.0	8.066 8.044	6.919 9.897	4.002 3.987 3.971	3.155[a]	2.959
10.0	8.015 7.933	6.868 6.845	3.938 3.922 3.906	3.170[a]	2.977
15.0	7.932 7.910	6.786 6.764	3.819[b]	3.174[b]	2.988
20	7.904 7.882	6.758 6.736	3.784[b]	3.183[b]	2.998
30.0	7.868 7.846	6.724 6.702	3.740[b]	3.191[b]	3.007
50.0	7.844 7.822	6.702 6.679	3.710[b]	3.206[b]	3.018

[a] middle value of the quintuple peak. [b] broad peak.

Table S2. The observed ^{1}H Chemical Shifts Assignments (in ppm) of N10-6-10N at different concentrations

concentration (mM)	proton				
	H_a	H_b	H_c	H_g ($H_{g'}$)	H_h
0.35	8.119 8.095	6.972 6.949	3.998 3.982 3,966	3.096[a]	2.883
0.40	8.120 8.096	6.972 6.949	3.992 3.975 3,959	3.096[a]	2.884
0.50	8.120 8.096	6.972 6.949	3.978 3.962 3.946	3.096[a]	2.886
0.60	8.119 8.095	6.972 6.949	3.964 3.948 3.933	3.097[a]	2.892
0.80	8.115 8.093	6.969 6.946	3.911 3.899 3.885	3.098[a]	2.894
1.0	8.112 8.089	6.965 6.942	3.869[b]	3.100[a]	2.898
1.5	8.104 8.081	6.957 6.934	3.792[b]	3.104[b]	2.916
2.0	8.066 8.044	6.919 9.897	3.764[b]	3.107[b]	2.923
3.0	8.015 7.933	6.868 6.845	3.734[b]	3.114[b]	2.933
5.0	7.932 7.910	6.786 6.764	3.697[b]	3.141[b]	2.956
8.0	7.904 7.882	6.758 6.736	3.689[b]	3.148[b]	2.963
12.0	7.868 7.846	6.724 6.702	3.684[b]	3.156[b]	2.969
20.0	7.844 7.822	6.702 6.679	3.674[b]	3.168[b]	2.979

[a] middle value of the quintuple peak. [b] broad peak.

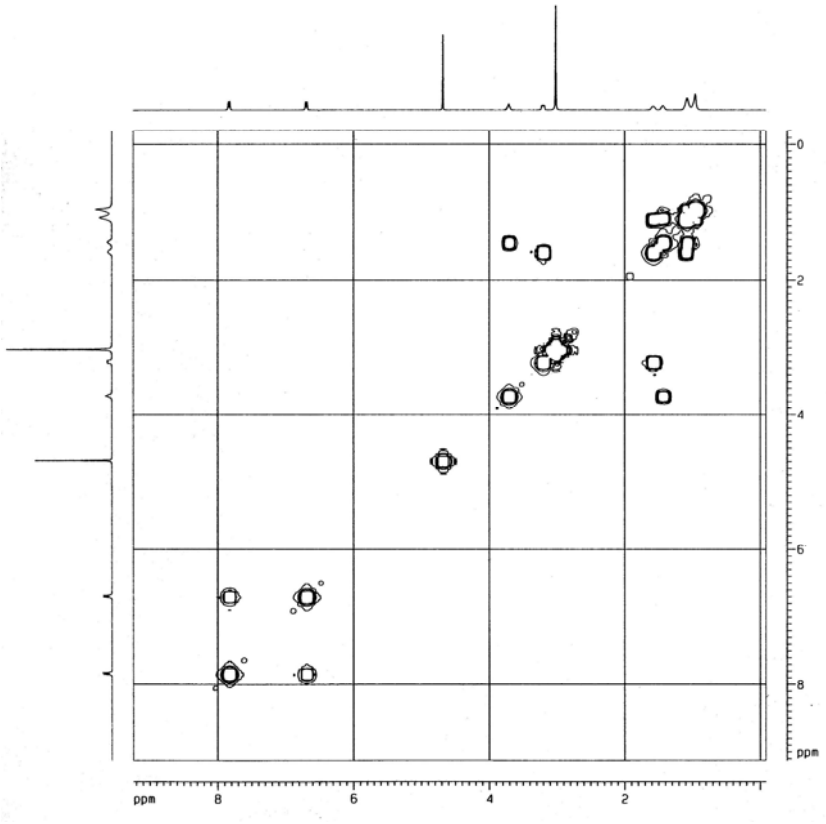

Figure S1. COSY spectrum of 50.0 mM N10TAB in D_2O.

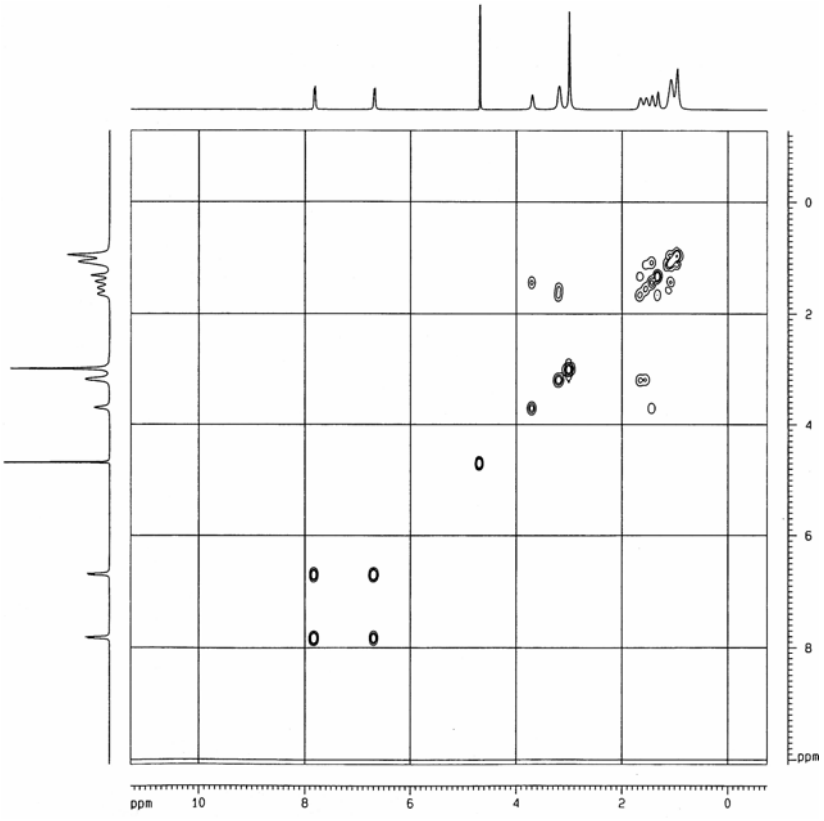

Figure S2. COSY spectrum of 20.0 mM N10-6-10N in D_2O.

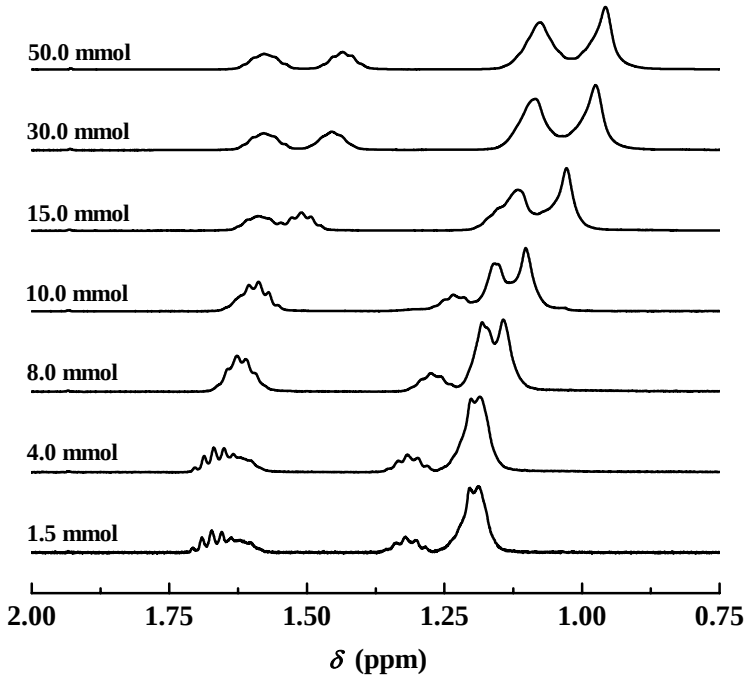

Figure S3. Expansion of the chemical shifts between 2.00 and 0.75 ppm in ^{1}H-NMR of N10TAB in D_2O at different concentrations.

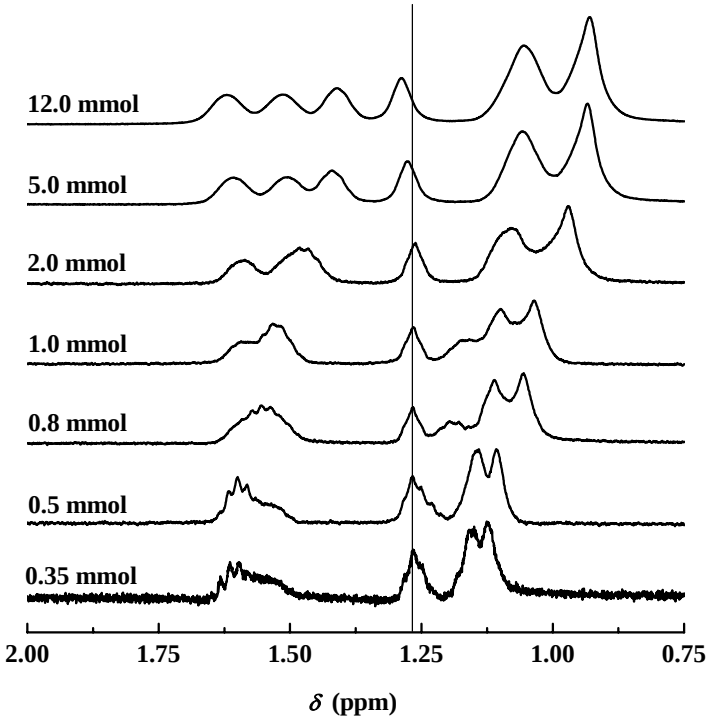

Figure S4. Expansion of the chemical shifts between 2.00 and 0.75 ppm in ^{1}H-NMR of N10-6-10N in D_2O at different concentrations. The vertical line denotes the downfield shifts of $H_{e'}$ with the increase of concentration.

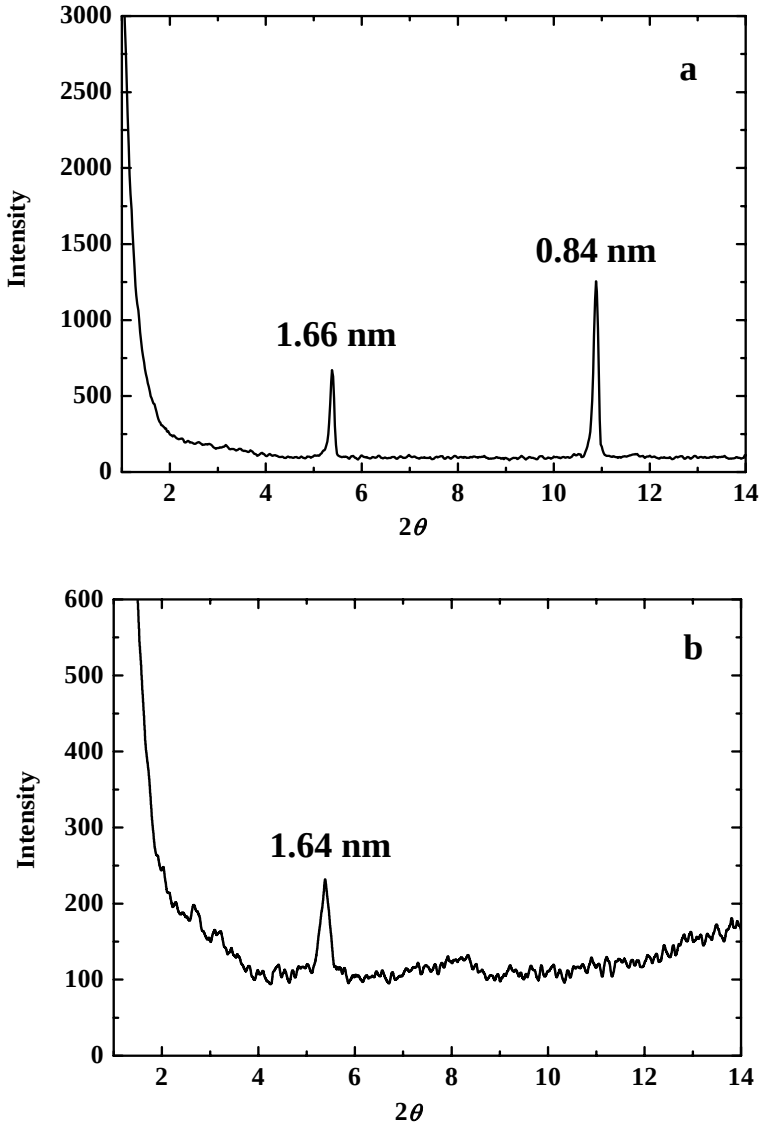

Figure S5. XRD data of (a) N10TAB and (b) N10-6-10N.