Supporting Information

Linear Poly(ethylene imine)s: True Molar Masses, Solution Properties and Conformation

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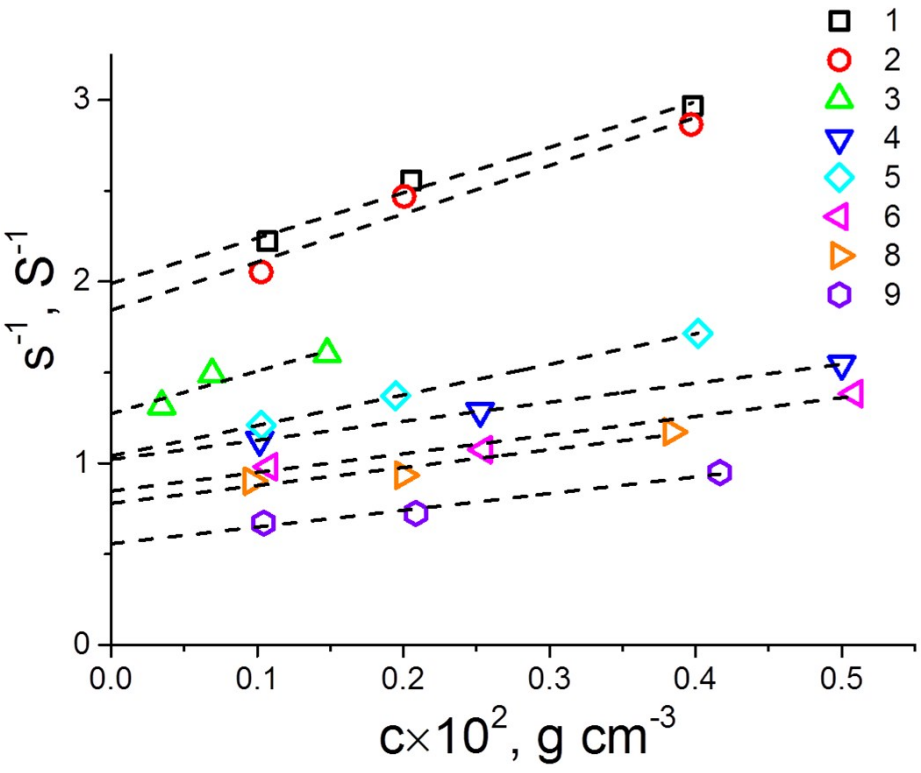

Figure 1 SI. Concentration dependences of the reciprocal sedimentation coefficient of LPEI samples in 0.2 M NaBr methanol, 20 °C.

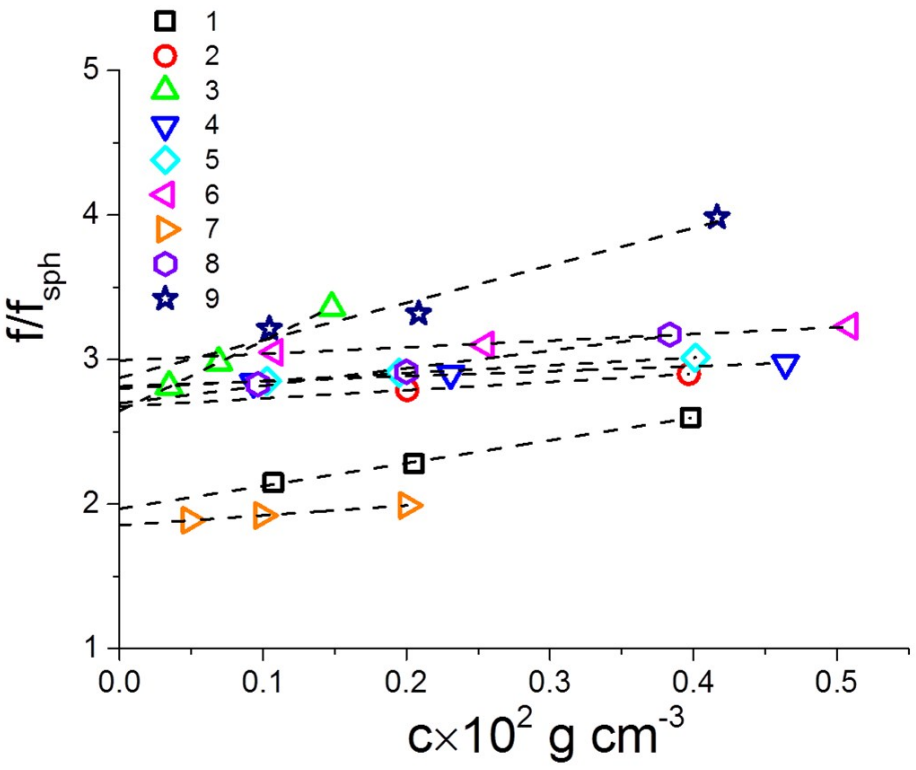

Figure 2 SI. Concentration dependences of the frictional ratios of LPEI samples in 0.2 M NaBr methanol, 20 °C.

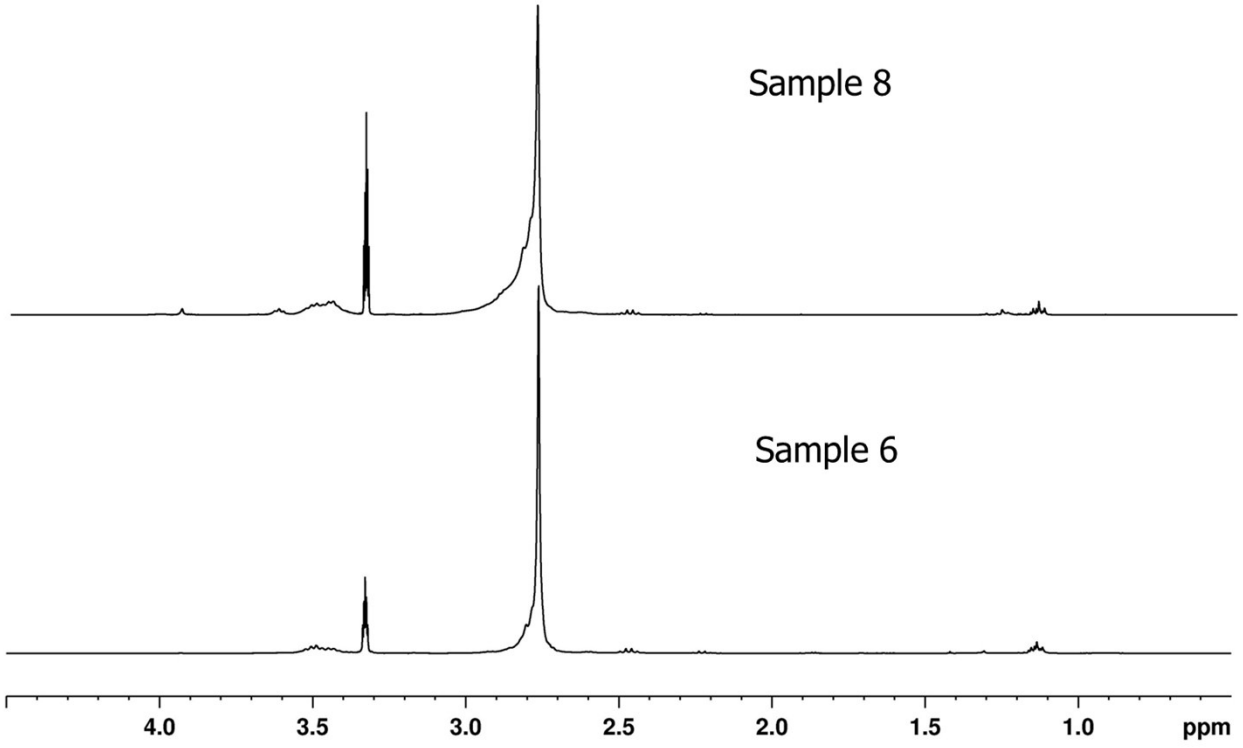

Figure 3 SI. ^{1}H-NMR spectra for LPEI samples 6 and sample 8 in deuterated methanol.

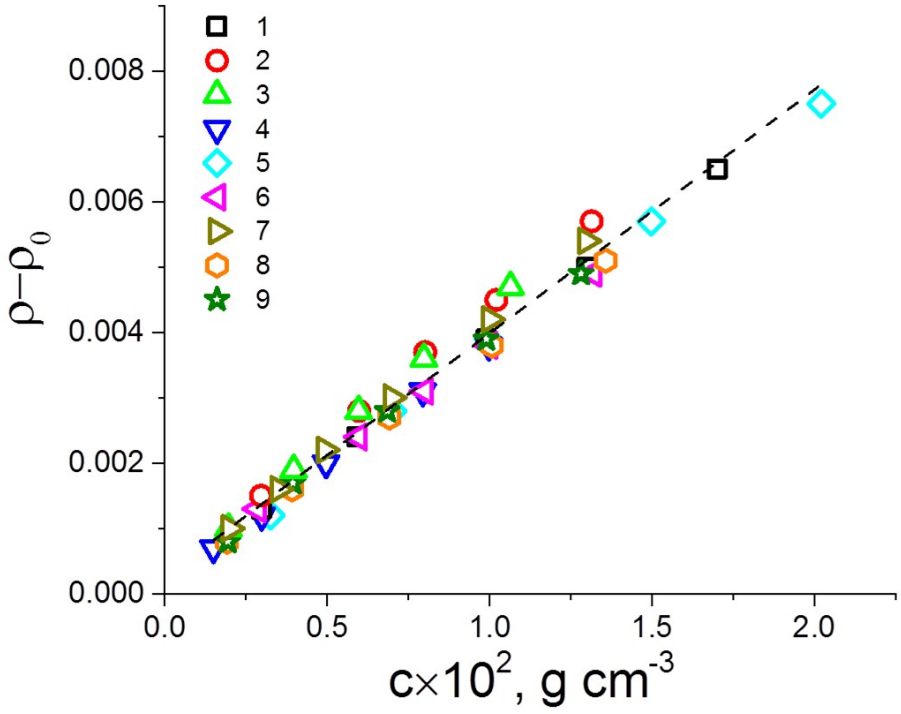

Figure 4 SI. Partial specific volume determination – dependence of the $\rho - \rho_0$on the concentration of the LPEI samples in methanol, 20 °C.

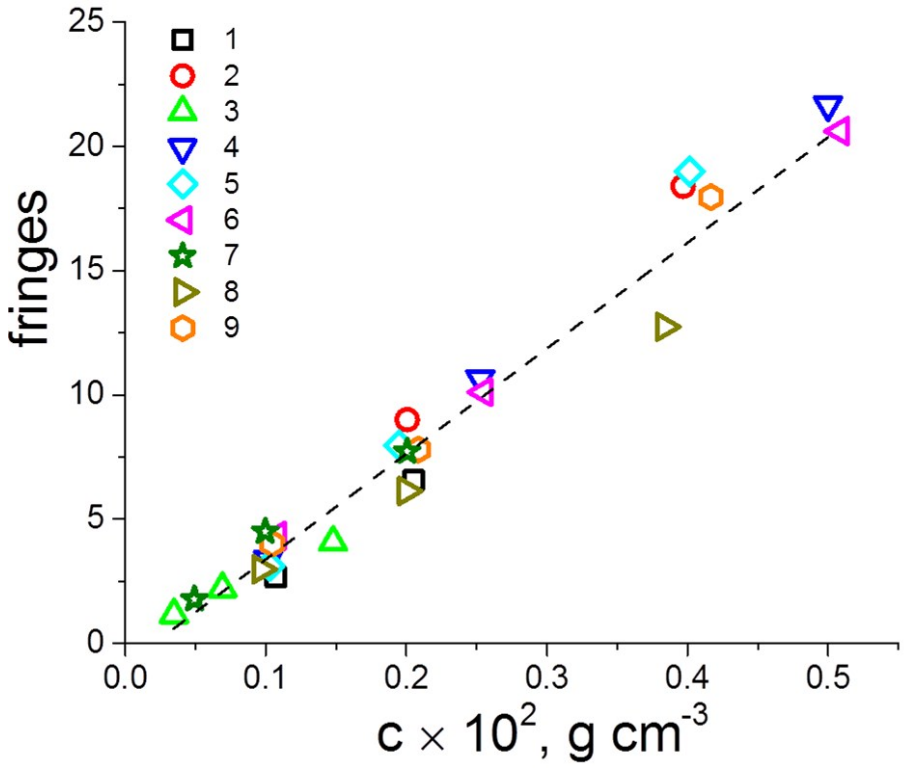

Figure 5 SI. Number of interference fringes over the concentration for LPEI samples in 0.2 M NaBr methanol, 20 °C.

Table 1 SI. Determined frictional ratios and intrinsic diffusion coefficients for LPEI samples.

Sample	$(f/f_{sph})_0$	$[D_{f/f}]\times10^{11}$	$[D_{isoth}]\times10^{11}$	$[D_{NMR}]\times10^{11}$
1	1.97	5.17	7.32	5.0
2	2.67	2.90	4.89	3.8
3	2.65	2.49	4.58	--
4	2.81	2.04	3.99	2.9
5	2.79	2.09	3.61	--
6	2.99	1.77	2.13	2.4
7	1.85	3.76	4.15	3.1
8	2.70	1.93	2.80	2.3
9	2.87	1.52	2.07	1.4

$(f/f_{sph})_0$ and $[D_{f/f}]$ are determined in 0.2 M NaBr methanol at 20 °C, $[D_{isoth}]$ are determined in 0.2 M NaBr methanol at 25 °C, $[D_{NMR}]$ are determined in deuterated methanol at 24.6 °C.