Network Formation of DNA/Polyelectrolyte Fibrous Aggregates adsorbed at the Water – Air Interface

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Supporting Information

Figure S1.¹H NMR spectrum of N,N-diallyl-N,N-dimethylammonium chloride (DADMAC) in D₂O.



Figure S2. ¹H NMR spectrum of poly(N,N-diallyl-N,N-dimethylammonium chloride) (PDADMAC) in D₂O.



Figure S3. ¹H NMR spectrum of N,N-diallyl-N-butyl-N-methylammonium chloride (DABMAC) in DMSO-d6.



Figure S4. ¹H NMR spectrum of poly(N,N-diallyl-N-butyl-N-methylammonium chloride) (PDABMAC) in D₂O.



Figure S5. ¹H NMR spectrum of N,N-diallyl-N-hexyl-N-methylammonium chloride (DAHMAC) in DMSO-d6.



Figure S6. ¹H NMR spectrum of poly(N,N-diallyl-N-hexyl-N-methylammonium chloride) (PDAHMAC) in D_2O .



Figure S7.Kinetic dependencies of the surface tension (triangles) and the dynamic surface elasticity (circles) for mixed DNA (50μ M)/PDADMAC (300μ M) solution. Lines are guides for the eye.



Figure S8. Dependence of the refractive index on the concentration of PDAHMAC solutions.

Table S1. Rate constants for mixed DNA/PDAHMAC solutions derived from the kinetic dependencies of the ellipsometric angle Δ_s .

PDAHMAC concentration, µM	Rate constant × 10 ² , min ⁻¹
10	1,9
15	1,4
30	7,7
50	18
75	1,4
150	1,4
500	2,2



Figure S9. ζ potential for mixed DNA(50 μ M)/PDAHMAC solutions with polyelectrolyte concentrations 15 (red), 50 (black), 75 (green) and 300 (blue) μ M.



Figure S10. Size distribution for mixed DNA (50 μ M)/PDAHMAC solutions with polyelectrolyte concentrations 15 (red), 75 (green) and 300 (blue) μ M measured by dynamic light scattering.



Figure S11.AFM image of a DNA(100 μ M)/PDABMAC adsorption film at a polyelectrolyte concentration of 300 μ M.