

Unequal effect of ethanol/water on the stability of ct-DNA, poly [(dA-dT)]₂ and poly(rA)·poly(rU). Thermophysical properties†

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Electronic Supplementary Information (ESI)

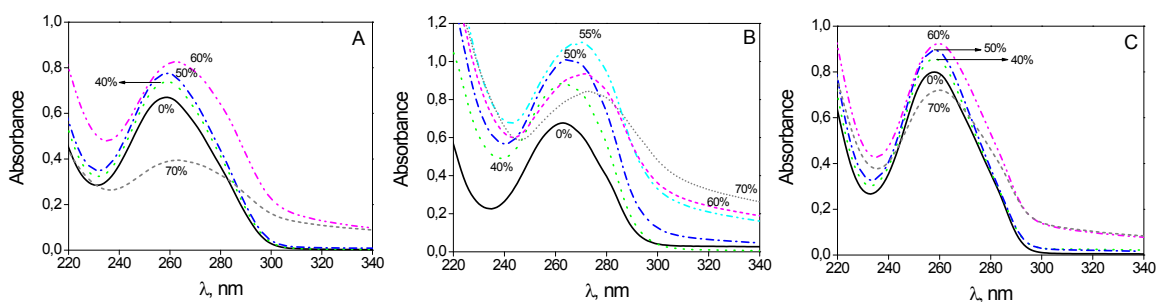


Fig. 1S UV spectra of the three polynucleotides recorded for different ethanol contents, (A) ct-DNA, (B) [poly(dA-dT)]₂ and (C) poly(rA)·poly(rU). $C_P = 5 \times 10^{-5} M_{BP}$, $I = 0.1 M$ (NaCl), $pH = 7.0$, $T = 25^\circ C$.

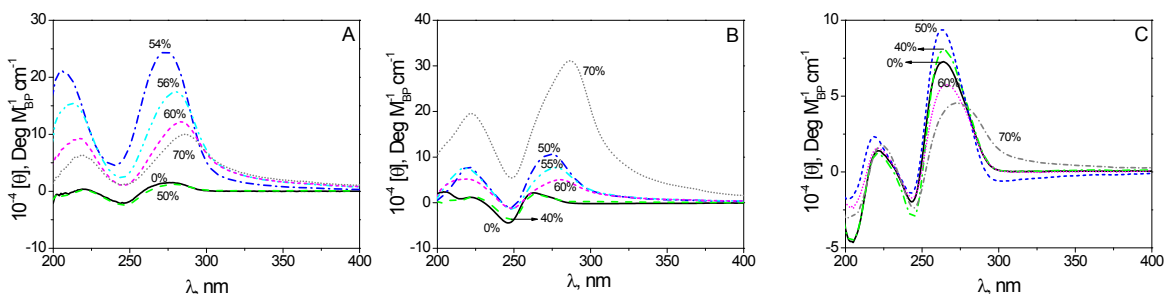


Fig. 2S CD spectra of the three polynucleotides, showing the variation of the molar ellipticity for different ethanol contents: (A) ct-DNA, (B) [poly(dA-dT)]₂ and (C) poly(rA)·poly(rU). $C_P = 5 \times 10^{-5} M$, $I = 0.1 M$ (NaCl), $pH = 7.0$, $T = 25^\circ C$.

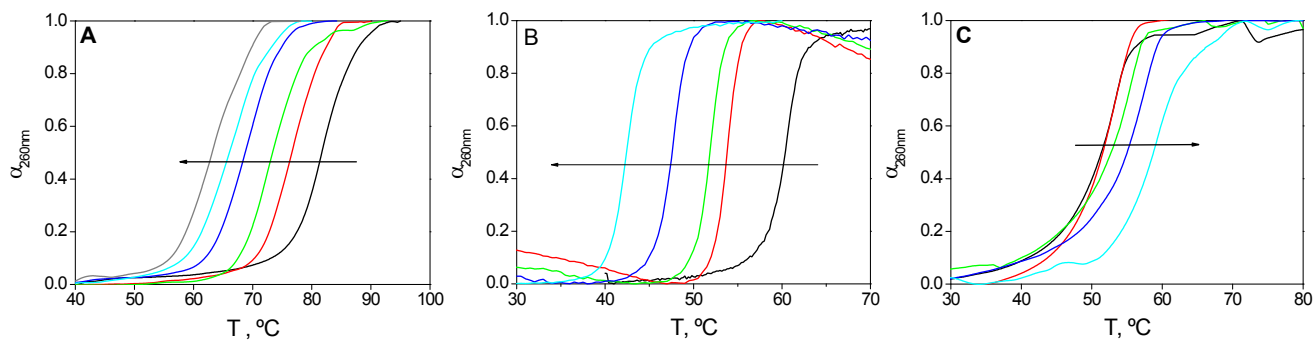


Fig. 3S Variation of α as a function of temperature for: (A) ct-DNA, (B) [poly(dA-dT)]₂ and (C) poly(rA)·poly(rU) for ethanol contents: — 0, — 10, — 20, — 30, — 40, — 50% EtOH; $C_P = 4 \times 10^{-5}$ M_{BP}. $I = 0.1$ M (NaCl), $pH = 7.0$. Scan rate = 0.25 °C·min⁻¹.

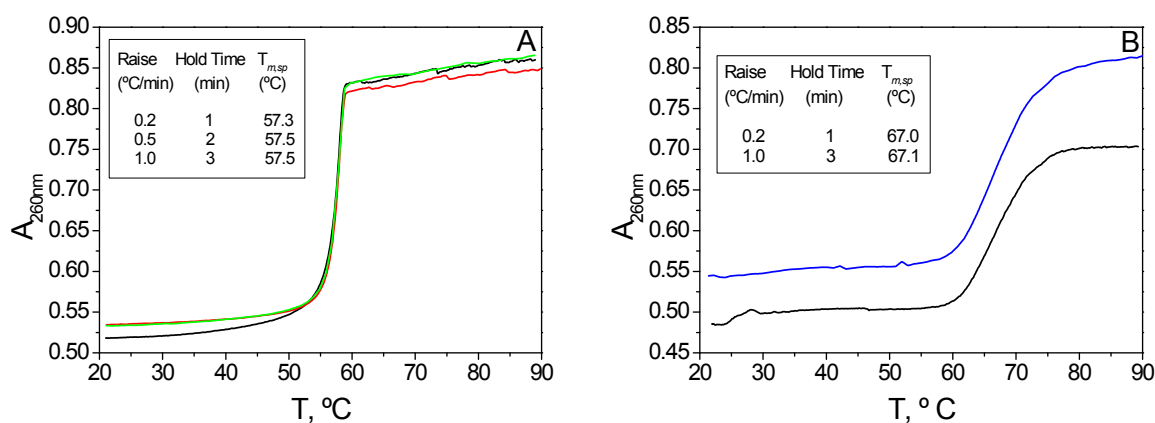


Fig. 4S (A) Poly(rA)·poly(rU) for 20 % (v/v) EtOH and scan rates: — 0.2, — 0.5, — 1.0 °C min⁻¹; $C_P = 4 \times 10^{-5}$ M_{BP}. $I = 0.1$ M (NaCl), $pH = 7.0$. (B) ct-DNA for 40 % (v/v) EtOH and scan rates: — 0.2, and — 1.0 °C min⁻¹; $C_P = 4 \times 10^{-5}$ M_{BP}. $I = 0.1$ M (NaCl), $pH = 7.0$.

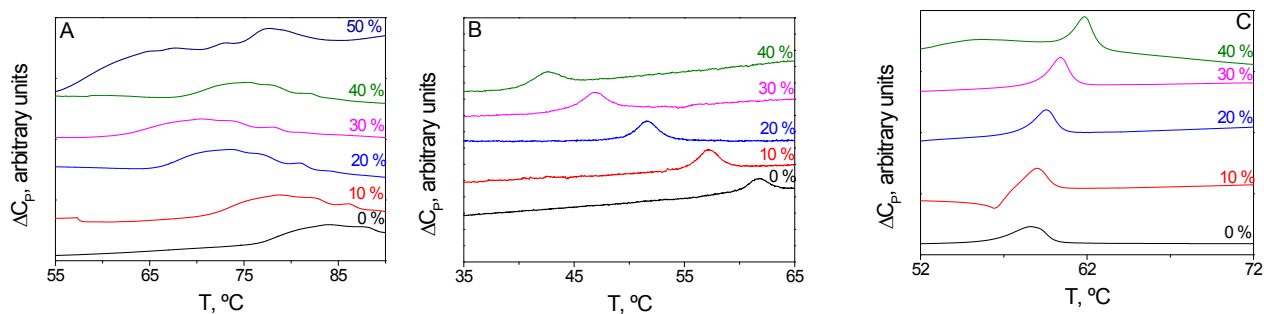


Fig. 5S DSC thermograms recorded for denaturation of (A) ct-DNA, (B) [poly(dA-dT)]₂ and (C) poly(rA)·poly(rU) for different ethanol contents. $C_p = 1 \times 10^{-3} \text{ M}_{\text{BP}}$, $I = 0.1 \text{ M}$ (NaCl), $\text{pH} = 7.0$. scan rate $1 \text{ }^{\circ}\text{C min}^{-1}$ and $P = 1 \text{ atm}$.

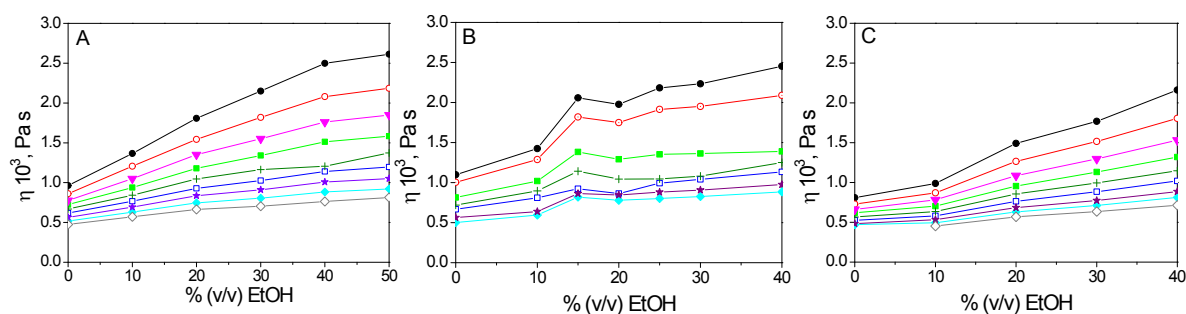


Fig. 6S Measured viscosity, η (Pa s), for polynucleotide solutions as a function of % (v/v) EtOH at working temperatures: (●)25, (○)30, (▼)35, (■)40, (⊕)45, (□)50, (★)55, (◆)60 and (⊛)65 $^{\circ}\text{C}$. (A) ct-DNA, (B) [poly(dA-dT)]₂ and (C) poly(rA)·poly(rU). $C_p = 5 \times 10^{-4} \text{ M}_{\text{BP}}$, $I = 0.1 \text{ M}$ (NaCl), $\text{pH} = 7.0$.

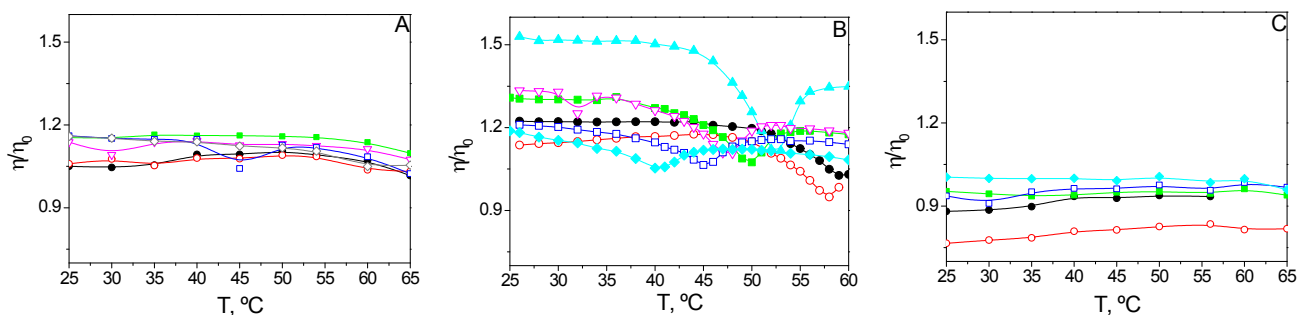


Fig. 7S Variation of the relative viscosity η/η_0 as a function of temperature for different ethanol contents: (●)0, (○)10, (▲)15, (■)20, (◆)25, (□)30, (◇)40 and (◇)50% (v/v) EtOH. (A) ct-DNA, (B) [poly(dA-dT)]₂ and (C) poly(rA)·poly(rU). $C_p = 5 \times 10^{-4} \text{ M}_{\text{BP}}$, $I = 0.1 \text{ M}$ (NaCl), $\text{pH} = 7.0$

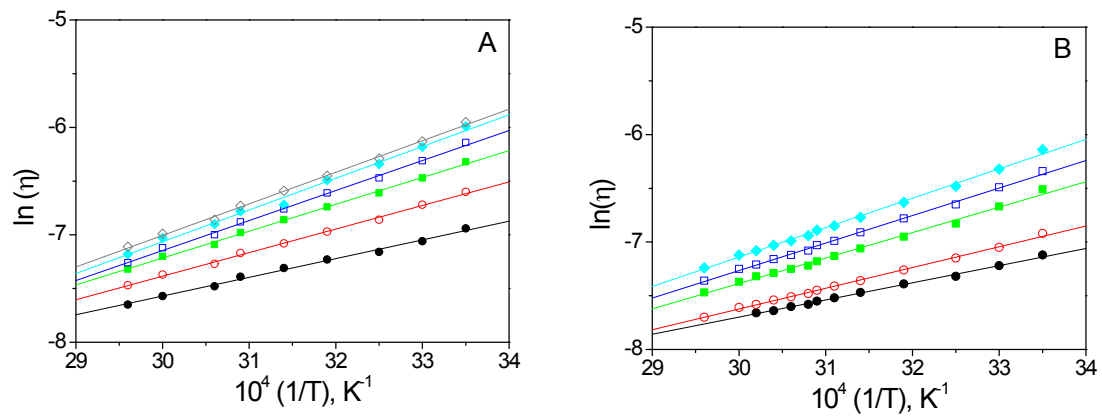


Fig. 8S Plot and fitting of eqn (11), (A) ct-DNA and (B) poly(rA)·poly(rU) for different ethanol-water mixtures: (●)0.0, (○)10, (■)20, (□)30, (◆)40 and (◇)50% EtOH/water. $C_p = 5 \times 10^{-4} M_{BP}$, $I = 0.1 M$ (NaCl), $pH = 7.0$.

Table S.1.Measured values of ρ_0 , and u_0 for neat solvent in the 25 to 65 °C temperature range. $I = 0.1$ M (NaCl), $pH = 7.0$.

T (°C)	0% (v/v) EtOH		10% (v/v) EtOH		20% (v/v) EtOH		30% (v/v) EtOH		40% (v/v) EtOH		50% (v/v) EtOH	
	ρ_0 (g cm ⁻³)	u_0 (m s ⁻¹)	ρ_0 (g cm ⁻³)	u_0 (m s ⁻¹)	ρ_0 (g cm ⁻³)	u_0 (m s ⁻¹)	ρ_0 (g cm ⁻³)	u_0 (m s ⁻¹)	ρ_0 (g cm ⁻³)	u_0 (m s ⁻¹)	ρ_0 (g cm ⁻³)	u_0 (m s ⁻¹)
25.00	1.001308	1503.80	0.988519	1556.82	0.978588	1601.44	0.968077	1623.41	0.951741	1597.02	0.932955	1538.24
26.00	1.001036	1506.43	0.988214	1558.09	0.978181	1601.47	0.967558	1622.00	0.951071	1594.75	0.932192	1535.61
27.00	1.000743	1508.92	0.987902	1559.17	0.977779	1601.47	0.967031	1620.61	0.950391	1592.44	0.931431	1533.05
28.00	1.000436	1511.38	0.987582	1560.12	0.977370	1601.44	0.966498	1619.19	0.949709	1590.08	0.930665	1530.48
29.00	1.000135	1513.75	0.987252	1560.96	0.976951	1601.36	0.965961	1617.77	0.949021	1587.73	0.929898	1527.93
30.00	0.999839	1516.06	0.986913	1561.71	0.976525	1601.23	0.965417	1616.32	0.948331	1585.37	0.929127	1525.38
31.00	0.999529	1518.29	0.986565	1562.54	0.976088	1601.08	0.964866	1614.81	0.947636	1583.00	0.928353	1522.87
32.00	0.999211	1520.45	0.986211	1563.36	0.975657	1600.89	0.964309	1613.33	0.946939	1580.64	0.927579	1520.42
33.00	0.998889	1522.53	0.985847	1564.17	0.975212	1600.65	0.963743	1611.83	0.946238	1578.24	0.926802	1517.97
34.00	0.998555	1524.55	0.985474	1565.01	0.974755	1600.38	0.963176	1610.32	0.945533	1575.85	0.926018	1515.44
35.00	0.998215	1526.52	0.985093	1565.89	0.974294	1600.08	0.962601	1608.79	0.944824	1573.44	0.925234	1512.83
36.00	0.997881	1528.41	0.984705	1566.75	0.973826	1599.69	0.962020	1607.27	0.944111	1571.04	0.924447	1510.24
37.00	0.997540	1530.25	0.984307	1567.57	0.973348	1599.26	0.961434	1605.70	0.943396	1568.66	0.923657	1507.62
38.00	0.997201	1532.04	0.983903	1568.34	0.972863	1598.84	0.960840	1604.09	0.942675	1566.25	0.922866	1504.99
39.00	0.996849	1533.74	0.983490	1569.07	0.972374	1598.37	0.960241	1602.46	0.941952	1563.83	0.922071	1502.35
40.00	0.996485	1535.39	0.983073	1569.77	0.971876	1597.87	0.959639	1600.84	0.941227	1561.42	0.921272	1499.71
41.00	0.996117	1536.99	0.982644	1570.41	0.971370	1597.33	0.959028	1599.19	0.940496	1558.95	0.920473	1497.04
42.00	0.995738	1538.53	0.982208	1571.01	0.970858	1596.77	0.958414	1597.51	0.939762	1556.52	0.919673	1494.37
43.00	0.995352	1540.01	0.981768	1571.56	0.970340	1596.17	0.957791	1595.87	0.939022	1554.06	0.918865	1491.69
44.00	0.994952	1541.43	0.981319	1572.07	0.969814	1595.53	0.957167	1594.15	0.938282	1551.59	0.918057	1489.04
45.00	0.994546	1542.80	0.980864	1572.54	0.969281	1594.86	0.956535	1592.44	0.937538	1549.12	0.917247	1486.38
46.00	0.994131	1544.10	0.980401	1572.96	0.968744	1594.16	0.955899	1590.78	0.936790	1546.65	0.916433	1483.69
47.00	0.993706	1545.35	0.979933	1573.33	0.968197	1593.37	0.955258	1588.98	0.936037	1544.16	0.915615	1480.99
48.00	0.993271	1546.54	0.979457	1573.66	0.967645	1592.59	0.954610	1587.18	0.935282	1541.66	0.914797	1478.30
49.00	0.992828	1547.68	0.978976	1573.95	0.967089	1591.78	0.953957	1585.35	0.934522	1539.18	0.913974	1475.62
50.00	0.992376	1548.78	0.978491	1574.19	0.966523	1590.90	0.953300	1583.52	0.933760	1536.69	0.913145	1472.96
51.00	0.991918	1549.81	0.978001	1574.39	0.965954	1590.01	0.952638	1581.66	0.932993	1534.22	0.912318	1470.30
52.00	0.991451	1550.80	0.977503	1574.55	0.965378	1589.09	0.951971	1579.82	0.932220	1531.77	0.911484	1467.60
53.00	0.990981	1551.72	0.977010	1574.67	0.964795	1588.13	0.951298	1578.00	0.931447	1529.31	0.910650	1464.91
54.00	0.990501	1552.60	0.976511	1574.75	0.964209	1587.14	0.950620	1576.13	0.930673	1526.79	0.909814	1462.21
55.00	0.990018	1553.43	0.976012	1574.77	0.963615	1586.09	0.949941	1574.26	0.929893	1524.27	0.908973	1459.51
56.00	0.989528	1554.21	0.975518	1574.75	0.963016	1585.06	0.949252	1572.43	0.929110	1521.75	0.908128	1456.73
57.00	0.989032	1554.93	0.975029	1574.70	0.962410	1583.97	0.948561	1570.55	0.928319	1519.20	0.907282	1454.03
58.00	0.988530	1555.62	0.974524	1574.59	0.961798	1582.88	0.947865	1568.65	0.927529	1516.66	0.906435	1451.32
59.00	0.988020	1556.25	0.974025	1574.46	0.961181	1581.73	0.947165	1566.78	0.926732	1514.12	0.905583	1448.63
60.00	0.987507	1556.85	0.973528	1574.28	0.960558	1580.58	0.946462	1564.92	0.925934	1511.57	0.904724	1445.96
61.00	0.986989	1557.40	0.973029	1574.06	0.959930	1579.41	0.945752	1563.22	0.925130	1509.04	0.903866	1443.25
62.00	0.986462	1557.90	0.972528	1573.85	0.959296	1578.21	0.945040	1561.77	0.924325	1506.63	0.903005	1440.66
63.00	0.985930	1558.37	0.972029	1573.56	0.958656	1576.98	0.944323	1559.82	0.923513	1504.41	0.902139	1437.96
64.00	0.985386	1558.79	0.971529	1573.20	0.958010	1575.73	0.943595	1557.95	0.922700	1502.47	0.901275	1435.29
65.00	0.984811	1559.14	0.971018	1572.93	0.957359	1574.44	0.942858	1555.98	0.921884	1500.49	0.900404	1432.65

Table S.2.

Measured and calculated values for ρ , u , $[U]$, ϕV , ϕK_S , α , K_S and β_{S0} in the 25 to 65 °C temperature range. [poly(dA-dT)]₂ at 0% (v/v) EtOH. $C_p = 5.00 \times 10^{-4}$ M_{BP}, $I = 0.1$ M (NaCl), $pH = 7.0$.

T (°C)	ρ (g cm ⁻³)	u (m s ⁻¹)	$[U]$ (cm ³ mol ⁻¹)	ϕV (cm ³ mol ⁻¹)	$10^2 \times \phi K_S$ (cm ³ mol ⁻¹ bar ⁻¹)	$10^4 \times \alpha$ (K ⁻¹)	$10^5 \times K_S$ (bar ⁻¹)	$10^5 \times \beta_{S0}$ (bar ⁻¹)
25.00	1.001887	1504.05	997.80	-391.47	-15.15	2.56	4.4122	4.4189
26.00	1.001620	1506.70	1049.20	-401.56	-15.64	2.77	4.3979	4.4048
27.00	1.001338	1509.21	1047.45	-393.68	-15.51	2.86	4.3845	4.3914
28.00	1.001050	1511.66	1059.00	-395.79	-15.58	2.92	4.3716	4.3785
29.00	1.000753	1514.03	1057.34	-393.91	-15.51	3.04	4.3592	4.3661
30.00	1.000448	1516.35	1082.13	-396.03	-15.70	3.10	4.3472	4.3542
31.00	1.000134	1518.58	1067.36	-396.15	-15.53	3.17	4.3358	4.3427
32.00	0.999812	1520.75	1065.83	-394.28	-15.47	3.26	4.3248	4.3317
33.00	0.999483	1522.86	1077.50	-402.42	-15.60	3.30	4.3142	4.3212
34.00	0.999149	1524.88	1062.94	-408.56	-15.49	3.44	4.3043	4.3111
35.00	0.998801	1526.81	1022.26	-404.70	-15.08	3.46	4.2949	4.3015
36.00	0.998450	1528.70	1007.90	-412.86	-14.99	3.56	4.2858	4.2924
37.00	0.998090	1530.55	1006.68	-417.02	-14.99	3.62	4.2770	4.2836
38.00	0.997728	1532.33	1005.51	-431.21	-15.07	3.70	4.2686	4.2752
39.00	0.997356	1534.05	1004.38	-437.39	-15.09	3.75	4.2606	4.2672
40.00	0.996978	1535.71	1016.33	-451.61	-15.28	3.82	4.2530	4.2597
41.00	0.996590	1537.31	1002.25	-455.81	-15.18	3.90	4.2458	4.2524
42.00	0.996204	1538.76	884.22	-482.10	-14.37	3.92	4.2395	4.2456
43.00	0.995809	1540.25	896.36	-502.39	-14.63	4.00	4.2329	4.2392
44.00	0.995409	1541.68	908.51	-528.74	-14.93	4.04	4.2268	4.2331
45.00	0.995000	1543.05	894.73	-549.07	-14.97	4.16	4.2210	4.2273
46.00	0.994584	1544.37	906.93	-567.42	-15.21	4.21	4.2156	4.2220
47.00	0.994162	1545.61	880.30	-587.79	-15.14	4.30	4.2106	4.2169
48.00	0.993732	1546.82	892.55	-608.19	-15.40	4.36	4.2058	4.2122
49.00	0.993297	1547.96	878.96	-632.64	-15.48	4.40	4.2015	4.2079
50.00	0.992855	1549.06	1059.27	-645.02	-17.09	4.50	4.1974	4.2046
51.00	0.992404	1550.10	1006.89	-647.34	-16.65	4.56	4.1936	4.2006
52.00	0.991948	1551.09	1006.25	-669.83	-16.82	4.64	4.1902	4.1972
53.00	0.991485	1552.04	1031.43	-684.28	-17.14	4.69	4.1870	4.1942
54.00	0.991018	1552.94	1056.62	-704.81	-17.52	4.78	4.1842	4.1914
55.00	0.990541	1553.79	1094.70	-721.31	-17.97	5.84	4.1816	4.1891
56.00	0.990058	1554.60	1145.64	-729.76	-18.46	3.90	4.1793	4.1870
57.00	0.989570	1555.34	1157.97	-750.35	-18.72	4.99	4.1774	4.1852
58.00	0.989072	1556.04	1183.19	-756.80	-18.98	5.06	4.1757	4.1836
59.00	0.988567	1556.69	1208.42	-761.24	-19.23	5.12	4.1744	4.1824
60.00	0.988057	1557.32	1272.22	-769.74	-19.83	5.22	4.1731	4.1814
61.00	0.987540	1557.89	1297.47	-774.19	-20.08	5.27	4.1723	4.1807
62.00	0.987020	1558.25	1107.70	-784.74	-18.58	5.31	4.1725	4.1802
63.00	0.986490	1558.64	1030.18	-785.17	-17.93	5.37	4.1727	4.1800
64.00	0.985950	1559.32	1360.49	-777.47	-20.63	5.41	4.1713	4.1800
65.00	0.985410	1559.71	1385.83	-779.93	-20.87	5.52	4.1715	4.1803

Table S.3.

Measured and calculated values for ρ , u , $[U]$, ϕV , ϕK_S , α , K_S and β_{S0} in the 25 to 65 °C temperature range. [poly(dA-dT)]₂ at 10% (v/v) EtOH. $C_P = 5.04 \times 10^{-4}$ M_{BP}, $I = 0.1$ M (NaCl), $pH = 7.0$.

T (°C)	ρ (g cm ⁻³)	u (m s ⁻¹)	$[U]$ (cm ³ mol ⁻¹)	ϕV (cm ³ mol ⁻¹)	$10^2 \times \phi K_S$ (cm ³ mol ⁻¹ bar ⁻¹)	$10^4 \times \alpha$ (K ⁻¹)	$10^5 \times K_S$ (bar ⁻¹)	$10^5 \times \beta_{S0}$ (bar ⁻¹)
25.00	0.990470	1550.34	-102.40	-55.08	-2.36	2.97	4.2005	4.2016
26.00	0.990176	1551.89	-127.88	-59.11	-2.18	3.01	4.1934	4.1944
27.00	0.989871	1553.39	-114.98	-61.13	-2.30	3.13	4.1866	4.1876
28.00	0.989556	1554.83	-76.58	-57.14	-2.58	3.22	4.1802	4.1814
29.00	0.989233	1556.20	-102.02	-63.18	-2.42	3.30	4.1742	4.1753
30.00	0.988901	1557.53	-76.45	-65.21	-2.65	3.41	4.1684	4.1696
31.00	0.988562	1558.79	-76.39	-69.25	-2.68	3.49	4.1631	4.1643
32.00	0.988212	1560.00	-63.61	-65.25	-2.75	3.57	4.1582	4.1594
33.00	0.987854	1561.15	-76.27	-67.29	-2.66	3.66	4.1535	4.1547
34.00	0.987490	1562.26	-38.11	-69.32	-2.99	3.76	4.1492	4.1505
35.00	0.987116	1563.30	-38.08	-69.35	-2.99	3.81	4.1452	4.1466
36.00	0.986733	1564.29	-38.06	-67.36	-2.97	3.91	4.1416	4.1429
37.00	0.986343	1565.23	-25.36	-65.38	-3.06	3.99	4.1382	4.1396
38.00	0.985946	1566.11	-25.34	-67.42	-3.08	4.08	4.1353	4.1367
39.00	0.985541	1566.95	-25.33	-69.46	-3.09	4.17	4.1325	4.1339
40.00	0.985127	1567.74	-12.66	-63.44	-3.15	4.22	4.1301	4.1315
41.00	0.984706	1568.47	0.00	-65.49	-3.27	4.31	4.1280	4.1295
42.00	0.984279	1569.15	0.00	-63.50	-3.25	4.37	4.1262	4.1277
43.00	0.983843	1569.79	12.64	-63.52	-3.36	4.47	4.1247	4.1262
44.00	0.983401	1570.37	25.28	-59.52	-3.43	4.55	4.1235	4.1251
45.00	0.982952	1570.91	37.90	-59.54	-3.53	4.60	4.1225	4.1242
46.00	0.982494	1571.39	63.15	-51.49	-3.67	4.70	4.1219	4.1237
47.00	0.982031	1571.84	75.76	-51.51	-3.78	4.78	4.1215	4.1233
48.00	0.981560	1572.23	88.36	-49.51	-3.87	4.82	4.1215	4.1233
49.00	0.981083	1572.59	100.97	-47.51	-3.96	4.89	4.1216	4.1235
50.00	0.980595	1572.88	88.33	-43.49	-3.82	4.96	4.1221	4.1239
51.00	0.980106	1573.14	100.93	-41.48	-3.91	5.08	4.1228	4.1247
52.00	0.979607	1573.35	100.92	-41.51	-3.91	5.09	4.1238	4.1257
53.00	0.979103	1573.43	-37.84	-37.47	-2.74	5.21	4.1255	4.1268
54.00	0.978592	1573.66	75.67	-35.46	-3.66	5.25	4.1264	4.1282
55.00	0.978075	1573.75	37.83	-33.45	-3.33	5.00	4.1282	4.1298
56.00	0.977550	1573.81	37.83	-29.41	-3.30	5.72	4.1301	4.1317
57.00	0.977017	1573.80	12.61	-21.30	-3.03	5.48	4.1324	4.1338
58.00	0.976482	1573.76	0.00	-19.27	-2.91	5.50	4.1348	4.1363
59.00	0.975939	1573.69	-12.61	-19.28	-2.81	5.58	4.1375	4.1389
60.00	0.975391	1573.57	-25.22	-15.22	-2.68	5.70	4.1405	4.1418
61.00	0.974834	1573.42	-25.23	-13.20	-2.66	5.71	4.1436	4.1449
62.00	0.974274	1573.24	-12.61	-9.13	-2.74	5.78	4.1470	4.1483
63.00	0.973708	1573.03	0.00	-15.25	-2.90	5.86	4.1505	4.1519
64.00	0.973133	1572.77	151.43	-47.90	-4.43	5.92	4.1543	4.1564
65.00	0.972554	1572.48	201.96	-11.19	-4.56	5.98	4.1583	4.1606

Table S.4.

Measured and calculated data of ρ , u , $[U]$, ϕV , ϕK_S , α , K_S and β_{S0} in the 25 to 65 °C temperature range. [poly(dA-dT)]₂ at 15% (v/v) EtOH. $C_P = 5.06 \times 10^{-4} \text{ M}_{BP}$, $I = 0.1 \text{ M (NaCl)}$, $pH = 7.0$.

T (°C)	ρ (g cm ⁻³)	u (m s ⁻¹)	$[U]$ (cm ³ mol ⁻¹)	ϕV (cm ³ mol ⁻¹)	$10^2 \times \phi K_S$ (cm ³ mol ⁻¹ bar ⁻¹)	$10^4 \times \alpha$ (K ⁻¹)	$10^5 \times K_S$ (bar ⁻¹)	$10^5 \times \beta_{S0}$ (bar ⁻¹)
25.00	0.983265	1582.26	-399.40	-359.63	-2.36	3.23	4.0623	4.0628
26.00	0.982934	1582.92	-386.76	-385.90	-2.68	3.51	4.0603	4.0609
27.00	0.982583	1583.53	-374.14	-392.07	-2.83	3.62	4.0586	4.0592
28.00	0.982222	1584.11	-349.08	-392.21	-3.04	3.74	4.0571	4.0579
29.00	0.981855	1584.64	-324.04	-402.43	-3.32	3.79	4.0559	4.0568
30.00	0.981475	1585.12	-286.57	-398.55	-3.60	3.89	4.0551	4.0561
31.00	0.981091	1585.55	-298.94	-408.78	-3.58	3.98	4.0544	4.0554
32.00	0.980696	1585.96	-261.51	-410.97	-3.90	4.06	4.0540	4.0551
33.00	0.980295	1586.28	-273.91	-421.22	-3.88	4.13	4.0540	4.0551
34.00	0.979883	1586.60	-224.07	-417.36	-4.26	4.24	4.0541	4.0554
35.00	0.979466	1586.85	-224.03	-427.63	-4.34	4.30	4.0545	4.0558
36.00	0.979041	1587.07	-199.12	-435.89	-4.62	4.40	4.0552	4.0566
37.00	0.978607	1587.24	-186.65	-438.10	-4.74	4.47	4.0561	4.0576
38.00	0.978166	1587.38	-149.31	-444.36	-5.09	4.53	4.0572	4.0589
39.00	0.977718	1587.47	-124.42	-450.63	-5.35	4.61	4.0586	4.0604
40.00	0.977263	1587.50	-124.42	-456.91	-5.40	4.72	4.0603	4.0621
41.00	0.976799	1587.51	-99.53	-463.20	-5.66	4.78	4.0622	4.0641
42.00	0.976330	1587.48	-74.65	-469.50	-5.92	4.85	4.0643	4.0663
43.00	0.975851	1587.40	-62.21	-473.78	-6.06	4.92	4.0667	4.0688
44.00	0.975366	1587.29	-24.89	-478.07	-6.41	5.02	4.0693	4.0716
45.00	0.974873	1587.12	-49.78	-486.42	-6.28	5.09	4.0722	4.0744
46.00	0.974376	1586.91	-12.45	-492.76	-6.64	5.16	4.0754	4.0777
47.00	0.973869	1586.68	12.45	-497.07	-6.88	5.22	4.0787	4.0811
48.00	0.973355	1586.41	37.35	-499.37	-7.11	5.32	4.0822	4.0848
49.00	0.972835	1586.10	62.27	-503.70	-7.36	5.38	4.0860	4.0887
50.00	0.972308	1585.77	74.74	-506.00	-7.49	5.45	4.0899	4.0927
51.00	0.971775	1585.40	137.06	-506.28	-8.01	5.53	4.0941	4.0971
52.00	0.971235	1584.98	149.56	-514.71	-8.20	5.59	4.0985	4.1016
53.00	0.970690	1584.57	249.34	-517.03	-9.05	5.67	4.1030	4.1065
54.00	0.970135	1584.07	224.48	-517.33	-8.86	5.74	4.1079	4.1113
55.00	0.969578	1583.42	112.28	-523.74	-8.00	5.78	4.1136	4.1166
56.00	0.969010	1582.84	37.44	-522.01	-7.38	5.88	4.1191	4.1217
57.00	0.968440	1582.26	62.42	-528.44	-7.65	5.93	4.1245	4.1273
58.00	0.967863	1581.62	62.45	-530.80	-7.68	5.99	4.1303	4.1331
59.00	0.967279	1580.94	62.47	-529.07	-7.68	6.06	4.1364	4.1391
60.00	0.966690	1580.26	100.00	-539.62	-8.09	6.13	4.1424	4.1454
61.00	0.966095	1579.55	312.68	-542.00	-9.89	6.19	4.1487	4.1526
62.00	0.965493	1578.73	262.78	-542.34	-9.50	6.26	4.1556	4.1593
63.00	0.964885	1577.95	300.47	-554.98	-9.94	6.31	4.1623	4.1662
64.00	0.964273	1577.12	313.16	-559.43	-10.10	6.40	4.1694	4.1733
65.00	0.963653	1576.26	325.87	-520.81	-9.90	6.45	4.1766	4.1805

Table S.5.

Measured and calculated values for ρ , u , $[U]$, ϕV , ϕK_S , α , K_S and β_{S0} in the 25 to 65 °C temperature range. [poly(dA-dT)]₂ at 20% (v/v) EtOH. $C_P = 5.09 \times 10^{-4}$ M_{BP}, $I = 0.1$ M (NaCl), $pH = 7.0$.

T (°C)	ρ (g cm ⁻³)	u (m s ⁻¹)	$[U]$ (cm ³ mol ⁻¹)	ϕV (cm ³ mol ⁻¹)	$10^2 \times \phi K_S$ (cm ³ mol ⁻¹ bar ⁻¹)	$10^4 \times \alpha$ (K ⁻¹)	$10^5 \times K_S$ (bar ⁻¹)	$10^5 \times \beta_{S0}$ (bar ⁻¹)
25.00	0.977089	1606.24	6655.22	3500.76	-27.81	4.18	0.3967	3.9880
26.00	0.976679	1606.10	6421.72	3550.37	-25.56	4.24	0.3969	3.9893
27.00	0.976263	1605.84	6102.48	3586.00	-22.74	4.29	0.3972	3.9909
28.00	0.975838	1605.53	5771.10	3623.69	-19.80	4.38	0.3975	3.9928
29.00	0.975406	1605.22	5488.96	3663.46	-17.24	4.49	0.3979	3.9949
30.00	0.974966	1604.88	5219.20	3695.25	-14.84	4.54	0.3982	3.9972
31.00	0.974517	1604.50	4961.84	3733.13	-12.49	4.66	0.3986	3.9998
32.00	0.974062	1604.09	4704.51	3769.06	-10.16	4.71	0.3990	4.0026
33.00	0.973598	1603.64	4434.91	3803.04	-7.73	4.81	0.3994	4.0056
34.00	0.973128	1603.15	4165.34	3837.08	-5.31	4.85	0.3998	4.0088
35.00	0.972650	1602.64	3920.36	3869.17	-3.09	4.97	0.4003	4.0123
36.00	0.972167	1602.10	3687.67	3897.27	-1.00	5.03	0.4008	4.0160
37.00	0.971673	1601.51	3430.34	3933.52	1.36	5.11	0.4013	4.0199
38.00	0.970921	1600.58	2804.03	4479.01	10.79	5.20	0.4020	4.0261
39.00	0.970667	1600.25	2952.44	3998.11	5.73	5.26	0.4023	4.0283
40.00	0.970154	1599.58	2744.17	4032.52	7.69	5.31	0.4029	4.0329
41.00	0.969633	1598.86	2511.19	4069.02	9.88	5.40	0.4034	4.0377
42.00	0.969107	1598.12	2290.42	4095.47	11.89	5.47	0.4040	4.0426
43.00	0.968575	1597.35	2081.86	4126.02	13.84	5.53	0.4046	4.0478
44.00	0.968035	1596.54	2255.67	4158.66	12.71	5.62	0.4053	4.0548
45.00	0.967488	1595.70	1652.05	4189.34	17.87	5.65	0.4059	4.0589
46.00	0.966936	1594.83	1418.41	4218.05	20.03	5.79	0.4066	4.0646
47.00	0.966374	1593.93	1209.29	4254.94	22.06	5.79	0.4073	4.0706
48.00	0.965810	1593.01	1037.04	4283.77	23.73	5.91	0.4080	4.0769
49.00	0.965237	1592.04	815.22	4314.70	25.83	5.95	0.4088	4.0833
50.00	0.964658	1591.05	617.91	4351.79	27.79	6.03	0.4095	4.0900
51.00	0.964073	1590.02	432.78	4376.76	29.56	6.10	0.4103	4.0969
52.00	0.963482	1588.96	247.44	4409.91	31.40	6.18	0.4111	4.1041
53.00	0.962887	1587.87	61.90	4432.96	33.17	6.20	0.4119	4.1114
54.00	0.962286	1586.73	-148.65	4464.20	35.22	6.30	0.4128	4.1189
55.00	0.961677	1585.63	-297.47	4497.56	36.79	6.35	0.4136	4.1266
56.00	0.961064	1584.46	-458.91	4524.86	38.42	6.40	0.4145	4.1346
57.00	0.960445	1583.27	-632.97	4550.19	40.15	6.46	0.4154	4.1427
58.00	0.959822	1582.07	-782.43	4575.56	41.68	6.55	0.4163	4.1510
59.00	0.959190	1580.83	-969.40	4607.14	43.58	6.61	0.4172	4.1594
60.00	0.958554	1579.57	-1144.20	4632.65	45.33	6.67	0.4181	4.1680
61.00	0.957913	1578.30	-1319.26	4658.22	47.10	6.70	0.4191	4.1767
62.00	0.957268	1577.01	-1482.15	4685.88	48.80	6.80	0.4200	4.1856
63.00	0.956616	1575.70	-1645.29	4711.57	50.49	6.81	0.4210	4.1947
64.00	0.955959	1574.19	-1908.61	4737.32	53.03	6.91	0.4221	4.2044
65.00	0.955296	1572.82	-2072.42	4767.23	54.78	6.95	0.4232	4.2139

Table S.6.

Measured and calculated values for ρ , u , $[U]$, ϕV , ϕK_S , α , K_S and β_{S0} in the 25 to 65 °C temperature range. [poly(dA-dT)]₂ at 25% (v/v) EtOH. $C_p = 5.11 \times 10^{-4} \text{ M}_{BP}$, $I = 0.1 \text{ M (NaCl)}$, $pH = 7.0$.

T (°C)	ρ (g cm ⁻³)	u (m s ⁻¹)	$[U]$ (cm ³ mol ⁻¹)	ϕV (cm ³ mol ⁻¹)	$10^2 \times \phi K_S$ (cm ³ mol ⁻¹ bar ⁻¹)	$10^4 \times \alpha$ (K ⁻¹)	$10^5 \times K_S$ (bar ⁻¹)	$10^5 \times \beta_{S0}$ (bar ⁻¹)
25.00	0.970810	1620.27	2127.41	2372.35	-0.70	5.01	3.9237	3.9288
26.00	0.970324	1619.26	1947.14	2407.74	0.99	5.00	3.9305	3.9348
27.00	0.969835	1618.20	1730.38	2435.12	2.92	5.09	3.9377	3.9411
28.00	0.969339	1617.13	1646.70	2464.56	3.81	5.15	3.9449	3.9479
29.00	0.968836	1616.01	1465.96	2494.04	5.48	5.21	3.9524	3.9546
30.00	0.968326	1614.89	1382.05	2519.55	6.36	5.31	3.9600	3.9618
31.00	0.967810	1613.73	1213.09	2547.11	7.93	5.37	3.9678	3.9689
32.00	0.967289	1612.57	1056.06	2566.64	9.34	5.43	3.9756	3.9761
33.00	0.966758	1611.37	911.01	2594.30	10.74	5.50	3.9837	3.9835
34.00	0.966224	1610.16	790.09	2613.91	11.88	5.60	3.9919	3.9912
35.00	0.965681	1608.92	608.17	2641.65	13.57	5.63	4.0003	3.9988
36.00	0.965134	1608.67	1691.91	2657.30	5.04	5.71	4.0039	4.0067
37.00	0.964578	1606.39	316.70	2685.14	16.31	5.80	4.0175	4.0147
38.00	0.964017	1605.09	195.04	2704.92	17.48	5.86	4.0264	4.0230
39.00	0.963449	1603.76	36.60	2730.82	19.01	5.92	4.0355	4.0314
40.00	0.962876	1602.42	-97.67	2752.71	20.31	5.98	4.0446	4.0399
41.00	0.962300	1601.04	-232.14	2766.53	21.55	6.04	4.0540	4.0487
42.00	0.961712	1599.65	-354.61	2794.60	22.82	6.11	4.0635	4.0577
43.00	0.961121	1598.23	-513.99	2810.53	24.29	6.17	4.0733	4.0667
44.00	0.960524	1596.80	-636.89	2834.62	25.54	6.26	4.0831	4.0759
45.00	0.959922	1595.34	-784.53	2854.69	26.97	6.30	4.0931	4.0853
46.00	0.959315	1593.86	-932.42	2872.77	28.39	6.37	4.1033	4.0948
47.00	0.958699	1592.37	-1166.47	2897.00	30.57	6.45	4.1137	4.1041
48.00	0.958079	1590.84	-1278.14	2915.17	31.72	6.51	4.1243	4.1142
49.00	0.957455	1589.28	-1463.78	2929.29	33.44	6.54	4.1351	4.1241
50.00	0.956824	1587.70	-1649.78	2947.53	35.21	6.59	4.1460	4.1342
51.00	0.956189	1586.10	-1823.82	2965.81	36.89	6.68	4.1571	4.1445
52.00	0.955547	1584.48	-1985.88	2984.14	38.48	6.74	4.1684	4.1551
53.00	0.954903	1582.84	-2135.94	2994.32	39.91	6.79	4.1799	4.1659
54.00	0.954251	1581.18	-2323.35	3016.81	41.77	6.85	4.1916	4.1766
55.00	0.953597	1579.51	-2474.07	3025.02	43.21	6.92	4.2033	4.1877
56.00	0.952933	1577.83	-2476.71	3045.55	43.52	6.96	4.2152	4.1994
57.00	0.952266	1576.13	-2603.18	3057.92	44.81	7.03	4.2272	4.2109
58.00	0.951595	1574.42	-2742.31	3074.43	46.24	7.11	4.2394	4.2224
59.00	0.950916	1572.69	-2869.37	3093.03	47.60	7.12	4.2518	4.2341
60.00	0.950233	1570.76	-3208.13	3107.57	50.73	7.25	4.2653	4.2461
61.00	0.949546	1568.94	-3385.83	3124.20	52.53	7.25	4.2783	4.2582
62.00	0.948853	1567.13	-3439.49	3144.98	53.32	7.36	4.2913	4.2709
63.00	0.948155	1565.30	-3455.96	3157.58	53.73	7.37	4.3045	4.2839
64.00	0.947450	1563.45	-3372.76	3182.57	53.40	7.46	4.3179	4.2976
65.00	0.946743	1561.62	-3351.73	3195.25	53.49	7.48	4.3313	4.3109

Table S.7.

Measured and calculated values for ρ , u , $[U]$, ϕV , ϕK_S , α , K_S and β_{S0} in the 25 to 65 °C temperature range. [poly(dA-dT)]₂ at 30% (v/v) EtOH. $C_P = 5.13 \times 10^{-4}$ M_{BP}, $I = 0.1$ M (NaCl), $pH = 7.0$.

T (°C)	ρ (g cm ⁻³)	u (m s ⁻¹)	$[U]$ (cm ³ mol ⁻¹)	ϕV (cm ³ mol ⁻¹)	$10^2 \times \phi K_S$ (cm ³ mol ⁻¹ bar ⁻¹)	$10^4 \times \alpha$ (K ⁻¹)	$10^5 \times K_S$ (bar ⁻¹)	$10^5 \times \beta_{S0}$ (bar ⁻¹)
25.00	0.964519	1622.18	-1080.18	2465.12	25.23	5.79	0.3940	3.9320
26.00	0.963959	1620.46	-1021.28	2514.94	25.23	5.83	0.3951	3.9427
27.00	0.963393	1618.72	-938.22	2544.66	24.88	5.92	0.3961	3.9538
28.00	0.962820	1616.98	-1119.75	2576.45	26.63	6.00	0.3972	3.9639
29.00	0.962240	1615.21	-1301.66	2608.30	28.40	6.03	0.3983	3.9742
30.00	0.961657	1613.44	-1315.14	2634.13	28.79	6.11	0.3995	3.9852
31.00	0.961065	1611.66	-1449.37	2674.17	30.25	6.17	0.4006	3.9958
32.00	0.960472	1609.89	-1559.69	2698.08	31.41	6.22	0.4017	4.0066
33.00	0.959870	1608.07	-1706.58	2728.11	32.92	6.28	0.4029	4.0175
34.00	0.959266	1606.27	-1793.23	2752.11	33.90	6.35	0.4040	4.0287
35.00	0.958654	1604.44	-1952.81	2784.27	35.54	6.40	0.4052	4.0397
36.00	0.958037	1602.61	-2052.08	2810.40	36.65	6.47	0.4064	4.0511
37.00	0.957416	1600.75	-2188.03	2832.52	38.04	6.51	0.4076	4.0625
38.00	0.956790	1598.89	-2263.51	2856.71	38.96	6.55	0.4088	4.0743
39.00	0.956160	1597.01	-2387.86	2878.91	40.27	6.63	0.4101	4.0860
40.00	0.955524	1595.13	-2475.94	2899.12	41.27	6.68	0.4113	4.0979
41.00	0.954882	1593.23	-2576.45	2927.52	42.45	6.74	0.4126	4.1100
42.00	0.954237	1591.32	-2738.25	2947.82	44.07	6.80	0.4138	4.1219
43.00	0.953585	1589.40	-2827.10	2972.24	45.14	6.82	0.4151	4.1343
44.00	0.952933	1587.45	-2952.92	2984.47	46.42	6.90	0.4164	4.1467
45.00	0.952273	1585.50	-3079.03	3004.90	47.77	6.94	0.4177	4.1592
46.00	0.951609	1583.52	-3230.02	3025.36	49.35	7.00	0.4191	4.1719
47.00	0.950943	1581.55	-3319.96	3035.65	50.34	7.02	0.4204	4.1848
48.00	0.950273	1579.56	-3434.75	3045.97	51.54	7.08	0.4218	4.1978
49.00	0.949597	1577.56	-3549.83	3058.36	52.77	7.13	0.4231	4.2109
50.00	0.948917	1575.59	-3603.53	3068.74	53.48	7.18	0.4245	4.2242
51.00	0.948233	1573.57	-3756.15	3079.14	55.03	7.26	0.4259	4.2374
52.00	0.947545	1571.53	-3847.44	3083.43	56.02	7.28	0.4273	4.2511
53.00	0.946850	1569.52	-3790.55	3095.94	55.82	7.36	0.4287	4.2654
54.00	0.946153	1567.33	-4055.79	3098.22	58.29	7.41	0.4302	4.2793
55.00	0.945447	1565.25	-4172.70	3119.02	59.66	7.48	0.4317	4.2933
56.00	0.944740	1563.17	-4277.51	3125.47	60.82	7.53	0.4332	4.3075
57.00	0.944026	1561.06	-4370.24	3136.06	61.91	7.58	0.4347	4.3220
58.00	0.943310	1558.86	-4575.42	3146.67	63.99	7.63	0.4362	4.3365
59.00	0.942585	1556.84	-4431.88	3163.52	63.11	7.69	0.4377	4.3517
60.00	0.941857	1554.63	-4413.22	3174.21	63.27	7.74	0.4393	4.3675
61.00	0.941125	1552.48	-4194.46	3186.99	61.70	7.79	0.4409	4.3840
62.00	0.940389	1550.34	-3987.53	3201.88	60.24	7.91	0.4424	4.4005
63.00	0.939641	1548.15	-4118.46	3229.23	61.84	7.99	0.4440	4.4158
64.00	0.938892	1545.95	-4299.96	3250.42	63.85	7.91	0.4456	4.4310
65.00	0.938152	1543.71	-4394.12	3242.62	64.84	7.89	0.4473	4.4470

Table S.8.

Measured and calculated values for ρ , u , $[U]$, ϕV , ϕK_S , α , K_S and β_{S0} in the 25 to 65 °C temperature range. [poly(dA-dT)]₂ at 40% (v/v) EtOH. $C_P = 5.17 \times 10^{-4} \text{ M}_{BP}$, $I = 0.1 \text{ M (NaCl)}$, $pH = 7.0$.

T (°C)	ρ (g cm ⁻³)	u (m s ⁻¹)	$[U]$ (cm ³ mol ⁻¹)	ϕV (cm ³ mol ⁻¹)	$10^2 \times \phi K_S$ (cm ³ mol ⁻¹ bar ⁻¹)	$10^4 \times \alpha$ (K ⁻¹)	$10^5 \times K_S$ (bar ⁻¹)	$10^5 \times \beta_{S0}$ (bar ⁻¹)
25.00	0.950066	1592.61	-72.92	549.73	2.33	7.24	0.4150	4.1498
26.00	0.949380	1590.12	-85.21	505.28	2.07	7.22	0.4166	4.1658
27.00	0.948692	1587.69	-158.48	507.69	2.71	7.27	0.4182	4.1813
28.00	0.948002	1585.27	-219.76	501.94	3.18	7.31	0.4197	4.1969
29.00	0.947306	1582.83	-330.13	506.39	4.16	7.35	0.4213	4.2124
30.00	0.946607	1580.38	-416.34	506.76	4.90	7.42	0.4230	4.2283
31.00	0.945904	1577.96	-453.77	505.10	5.22	7.47	0.4246	4.2442
32.00	0.945199	1575.54	-491.30	505.47	5.56	7.45	0.4262	4.2603
33.00	0.944487	1573.11	-516.66	507.90	5.82	7.56	0.4278	4.2766
34.00	0.943774	1570.68	-554.41	508.29	6.17	7.59	0.4295	4.2929
35.00	0.943058	1568.26	-567.60	506.62	6.29	7.63	0.4311	4.3093
36.00	0.942335	1565.81	-617.90	513.17	6.80	7.66	0.4328	4.3259
37.00	0.941609	1563.35	-668.37	519.73	7.32	7.73	0.4345	4.3427
38.00	0.940884	1560.91	-669.41	511.90	7.29	7.71	0.4362	4.3596
39.00	0.940152	1558.35	-819.45	516.42	8.67	7.82	0.4380	4.3767
40.00	0.939417	1555.88	-845.61	514.76	8.91	7.85	0.4397	4.3939
41.00	0.938680	1553.42	-859.40	517.23	9.09	7.87	0.4415	4.4112
42.00	0.937935	1550.93	-885.72	521.77	9.40	7.96	0.4432	4.4288
43.00	0.937188	1548.45	-899.63	528.38	9.61	7.97	0.4450	4.4464
44.00	0.936440	1545.96	-926.09	526.73	9.87	8.03	0.4468	4.4642
45.00	0.935686	1543.47	-940.11	529.23	10.06	8.05	0.4486	4.4822
46.00	0.934932	1540.98	-929.08	525.51	9.96	8.14	0.4504	4.5004
47.00	0.934172	1538.45	-955.75	528.01	10.26	8.15	0.4523	4.5187
48.00	0.933408	1535.93	-982.50	532.59	10.59	8.19	0.4541	4.5371
49.00	0.932639	1533.42	-996.71	539.26	10.82	8.23	0.4560	4.5557
50.00	0.931868	1530.91	-985.72	541.78	10.78	8.32	0.4579	4.5744
51.00	0.931097	1528.39	-987.34	538.07	10.81	8.32	0.4598	4.5933
52.00	0.930319	1525.84	-976.32	536.44	10.73	8.35	0.4617	4.6126
53.00	0.929539	1523.31	-939.85	543.14	10.50	8.40	0.4636	4.6320
54.00	0.928757	1520.62	-1119.54	537.34	12.16	8.46	0.4656	4.6515
55.00	0.927970	1518.06	178.53	541.97	0.12	8.49	0.4676	4.6774
56.00	0.927179	1515.47	-1136.10	544.52	12.48	8.53	0.4696	4.6910
57.00	0.926386	1512.89	-1150.81	540.81	12.63	8.59	0.4716	4.7110
58.00	0.925592	1510.32	-1267.97	537.09	13.76	8.61	0.4736	4.7305
59.00	0.924789	1507.73	-1347.07	543.83	14.63	8.69	0.4757	4.7505
60.00	0.923985	1505.09	-1490.70	546.40	16.08	8.70	0.4778	4.7706
61.00	0.923178	1502.46	-1621.93	551.07	17.45	8.74	0.4799	4.7909
62.00	0.922369	1499.84	-1740.71	549.46	18.65	8.79	0.4820	4.8113
63.00	0.921555	1497.21	-1847.00	549.94	19.76	8.83	0.4841	4.8319
64.00	0.920740	1494.55	-1876.14	546.23	20.09	8.91	0.4862	4.8533
65.00	0.919920	1491.61	-2294.20	548.82	24.27	8.91	0.4886	4.8747

Table S.9.

Measured and calculated values for ρ , u , $[U]$, ϕV , ϕK_S , α , K_S and β_{S0} in the 25 to 65 °C temperature range. ct-DNA at 0% (v/v) EtOH. $C_P = 5.00 \times 10^{-4} \text{ M}_{\text{BP}}$, $I = 0.1 \text{ M}$ (NaCl), $pH = 7.0$.

T (°C)	ρ (g cm ⁻³)	u (m s ⁻¹)	$[U]$ (cm ³ mol ⁻¹)	ϕV (cm ³ mol ⁻¹)	$10^2 \times \phi K_S$ (cm ³ mol ⁻¹ bar ⁻¹)	$10^4 \times \alpha$ (K ⁻¹)	$10^5 \times K_S$ (bar ⁻¹)	$10^5 \times \beta_{S0}$ (bar ⁻¹)
25.00	1.001618	1504.25	598.48	59.26	-7.76	2.86	0.4412	4.4162
26.00	1.001407	1506.86	570.89	-62.60	-8.56	2.88	0.4398	4.4020
27.00	1.001307	1509.36	583.20	-448.33	-12.03	2.94	0.4384	4.3888
28.00	1.000884	1511.80	555.78	-216.57	-9.73	3.00	0.4371	4.3759
29.00	1.000718	1514.17	554.91	-486.59	-12.05	3.05	0.4359	4.3635
30.00	1.000056	1516.49	567.26	245.38	-5.76	3.11	0.4348	4.3515
31.00	1.000047	1518.72	566.43	-356.83	-10.96	3.17	0.4335	4.3401
32.00	0.999384	1520.87	552.47	333.60	-4.84	3.23	0.4326	4.3291
33.00	0.998596	1522.97	577.99	1266.75	3.01	3.30	0.4317	4.3187
34.00	0.999041	1524.98	564.10	-293.08	-10.32	3.36	0.4304	4.3087
35.00	0.998474	1526.95	563.37	161.63	-6.38	3.42	0.4295	4.2990
36.00	0.998322	1528.84	562.68	-203.09	-9.49	3.49	0.4286	4.2898
37.00	0.998016	1530.67	548.93	-273.33	-9.96	3.55	0.4277	4.2810
38.00	0.997211	1532.45	535.23	661.19	-1.83	3.62	0.4270	4.2725
39.00	0.997195	1534.16	547.68	-12.70	-7.69	3.69	0.4261	4.2645
40.00	0.996914	1535.82	560.12	-179.29	-9.20	3.76	0.4253	4.2569
41.00	0.996427	1537.41	546.52	59.57	-7.04	3.83	0.4246	4.2496
42.00	0.996138	1538.95	545.98	-121.18	-8.56	3.89	0.4239	4.2427
43.00	0.995566	1540.43	545.45	252.51	-5.37	3.97	0.4233	4.2362
44.00	0.995327	1541.86	557.92	-71.02	-8.21	4.04	0.4226	4.2301
45.00	0.994906	1543.22	544.46	-40.88	-7.83	4.11	0.4220	4.2243
46.00	0.994483	1544.51	531.05	-24.81	-7.57	4.18	0.4215	4.2190
47.00	0.994053	1545.76	530.62	-14.75	-7.48	4.25	0.4210	4.2139
48.00	0.993612	1546.96	543.15	-2.68	-7.47	4.33	0.4206	4.2093
49.00	0.993166	1548.10	542.75	3.36	-7.41	4.40	0.4201	4.2050
50.00	0.992712	1549.18	516.54	7.40	-7.15	4.47	0.4197	4.2009
51.00	0.992254	1550.22	529.10	7.40	-7.25	4.55	0.4194	4.1973
52.00	0.991790	1551.20	515.86	1.35	-7.19	4.62	0.4190	4.1939
53.00	0.991319	1552.14	541.33	3.37	-7.38	4.70	0.4187	4.1909
54.00	0.990839	1553.01	528.15	3.37	-7.27	4.77	0.4185	4.1882
55.00	0.990355	1553.85	540.74	5.39	-7.35	4.85	0.4182	4.1858
56.00	0.989861	1554.63	540.47	13.48	-7.28	4.93	0.4180	4.1836
57.00	0.989365	1555.37	565.94	13.49	-7.49	5.00	0.4178	4.1818
58.00	0.988869	1556.05	552.83	1.36	-7.48	5.08	0.4177	4.1803
59.00	0.988362	1556.67	539.76	-4.72	-7.42	5.16	0.4175	4.1790
60.00	0.987850	1557.26	526.70	-6.74	-7.33	5.23	0.4174	4.1780
61.00	0.987331	1557.82	539.36	-4.72	-7.42	5.31	0.4174	4.1772
62.00	0.986805	1558.32	539.19	-6.75	-7.44	5.39	0.4173	4.1768
63.00	0.986275	1558.79	539.02	-10.81	-7.47	5.47	0.4173	4.1765
64.00	0.985738	1559.20	526.05	-25.03	-7.48	5.55	0.4173	4.1766
65.00	0.985195	1559.58	564.41	-90.03	-8.35	5.62	0.4173	4.1771

Table S.10.

Measured and calculated values for ρ , u , $[U]$, ϕV , ϕK_S , α , K_S and β_{S0} in the 25 to 65 °C temperature range. ct-DNA at 10% (v/v) EtOH. $C_p = 5.04 \times 10^{-4} M_{BP}$, $I = 0.1 M$ (NaCl), $pH = 7.0$.

T (°C)	ρ (g cm ⁻³)	u (m s ⁻¹)	$[U]$ (cm ³ mol ⁻¹)	ϕV (cm ³ mol ⁻¹)	$10^2 \times \phi K_S$ (cm ³ mol ⁻¹ bar ⁻¹)	$10^4 \times \alpha$ (K ⁻¹)	$10^5 \times K_S$ (bar ⁻¹)	$10^5 \times \beta_{S0}$ (bar ⁻¹)
25.00	0.988817	1557.53	905.10	88.95	-9.68	2.93	0.4169	4.1739
26.00	0.987770	1559.05	1222.80	1579.12	0.11	2.99	0.4165	4.1683
27.00	0.988619	1560.46	1642.00	-752.73	-22.81	3.08	0.4154	4.1639
28.00	0.987831	1561.83	2175.27	187.50	-19.40	3.19	0.4150	4.1602
29.00	0.987990	1562.94	2517.38	-795.44	-30.40	3.28	0.4143	4.1571
30.00	0.987403	1564.08	3011.78	-297.01	-30.35	3.38	0.4140	4.1545
31.00	0.987279	1565.22	3403.92	-747.72	-37.33	3.48	0.4134	4.1516
32.00	0.986963	1566.29	3719.50	-824.46	-40.56	3.57	0.4130	4.1487
33.00	0.986537	1567.23	3882.51	-699.95	-40.85	3.66	0.4127	4.1459
34.00	0.986226	1568.05	3855.07	-825.07	-41.64	3.76	0.4124	4.1431
35.00	0.985846	1568.95	3878.25	-827.41	-41.82	3.85	0.4121	4.1400
36.00	0.985458	1569.79	3850.79	-827.73	-41.57	3.94	0.4118	4.1371
37.00	0.985059	1570.59	3823.45	-826.05	-41.30	4.02	0.4115	4.1344
38.00	0.984655	1571.19	3606.45	-826.39	-39.49	4.11	0.4114	4.1321
39.00	0.984244	1571.90	3579.48	-830.77	-39.28	4.19	0.4112	4.1300
40.00	0.983822	1572.55	3514.67	-821.03	-38.65	4.28	0.4110	4.1280
41.00	0.983395	1573.15	3462.69	-825.43	-38.24	4.36	0.4109	4.1265
42.00	0.982963	1573.70	3398.20	-833.88	-37.77	4.44	0.4108	4.1251
43.00	0.982523	1574.21	3346.50	-834.25	-37.34	4.52	0.4107	4.1241
44.00	0.982074	1574.66	3269.67	-834.63	-36.70	4.60	0.4107	4.1233
45.00	0.981615	1575.09	3218.21	-826.93	-36.21	4.68	0.4106	4.1228
46.00	0.981155	1575.45	3141.65	-833.39	-35.63	4.76	0.4106	4.1225
47.00	0.980684	1575.63	2901.24	-827.71	-33.60	4.83	0.4107	4.1225
48.00	0.980203	1575.89	2812.35	-817.98	-32.79	4.91	0.4108	4.1228
49.00	0.979722	1576.13	2748.79	-818.39	-32.28	4.98	0.4109	4.1233
50.00	0.979231	1576.34	2710.55	-806.62	-31.87	5.05	0.4110	4.1241
51.00	0.978733	1576.49	2647.17	-790.79	-31.23	5.12	0.4111	4.1251
52.00	0.978229	1576.49	2445.24	-779.01	-29.48	5.19	0.4113	4.1264
53.00	0.977718	1576.55	2369.43	-742.84	-28.56	5.26	0.4115	4.1278
54.00	0.977201	1576.55	2268.49	-706.64	-27.44	5.33	0.4117	4.1295
55.00	0.976680	1576.52	2205.45	-662.27	-26.57	5.40	0.4120	4.1315
56.00	0.976149	1576.45	2142.46	-587.33	-25.45	5.46	0.4122	4.1337
57.00	0.975613	1576.33	2054.31	-491.96	-23.94	5.53	0.4125	4.1361
58.00	0.975069	1576.17	1991.43	-412.79	-22.79	5.59	0.4128	4.1388
59.00	0.974523	1575.95	1878.15	-317.24	-21.07	5.66	0.4132	4.1416
60.00	0.973968	1575.71	1802.73	-199.16	-19.49	5.72	0.4135	4.1446
61.00	0.973407	1575.44	1739.94	-72.81	-17.93	5.78	0.4139	4.1479
62.00	0.972841	1575.12	1601.46	59.80	-15.70	5.84	0.4143	4.1512
63.00	0.972271	1574.77	1526.08	204.79	-13.88	5.90	0.4147	4.1548
64.00	0.971691	1574.39	1501.20	368.32	-12.33	5.93	0.4152	4.1589
65.00	0.969806	1573.97	1312.20	3176.76	12.61	5.94	0.4162	4.1625

Table S.11.

Measured and calculated values for ρ , u , $[U]$, ϕV , ϕK_S , α , K_S and β_{S0} in the 25 to 65 °C temperature range. ct-DNA at 20% (v/v) EtOH. $C_p = 5.09 \times 10^{-4} \text{ M}_{BP}$, $I = 0.1 \text{ M (NaCl)}$, $pH = 7.0$.

T (°C)	ρ (g cm ⁻³)	u (m s ⁻¹)	$[U]$ (cm ³ mol ⁻¹)	ϕV (cm ³ mol ⁻¹)	$10^2 \times \phi K_S$ (cm ³ mol ⁻¹ bar ⁻¹)	$10^4 \times \alpha$ (K ⁻¹)	$10^5 \times K_S$ (bar ⁻¹)	$10^5 \times \beta_{S0}$ (bar ⁻¹)
25.00	0.977590	1607.24	7119.07	2698.84	-37.99	4.12	0.3960	3.9845
26.00	0.977187	1606.90	6664.80	2691.93	-34.44	4.19	0.3963	3.9861
27.00	0.976772	1606.63	6333.40	2719.17	-31.60	4.29	0.3966	3.9877
28.00	0.976349	1606.56	6284.42	2748.46	-30.99	4.88	0.3968	3.9895
29.00	0.975818	1608.17	8359.19	2974.99	-45.76	4.44	0.3962	3.9916
30.00	0.975484	1606.02	5880.14	2791.10	-27.45	4.02	0.3974	3.9940
31.00	0.975035	1605.44	5352.78	2816.52	-23.05	4.64	0.3979	3.9965
32.00	0.974580	1605.04	5095.57	2866.11	-20.62	4.68	0.3983	3.9993
33.00	0.974121	1605.15	5526.14	2895.64	-23.84	4.78	0.3984	4.0023
34.00	0.973649	1604.11	4581.33	2927.25	-16.04	4.86	0.3991	4.0055
35.00	0.973175	1603.82	4594.47	2954.86	-15.94	4.87	0.3995	4.0089
36.00	0.972702	1606.04	7802.68	2966.37	-41.61	5.01	0.3986	4.0128
37.00	0.972201	1603.24	4891.81	3014.28	-17.89	5.15	0.4002	4.0169
38.00	0.971700	1602.23	4167.74	3048.11	-11.81	5.17	0.4009	4.0210
39.00	0.971196	1601.40	3726.24	3079.96	-8.02	5.23	0.4015	4.0254
40.00	0.970684	1600.96	3801.22	3109.85	-8.39	5.32	0.4019	4.0300
41.00	0.970164	1600.08	3384.11	3139.80	-4.79	5.38	0.4026	4.0348
42.00	0.969640	1600.04	4025.42	3165.76	-9.77	5.45	0.4028	4.0398
43.00	0.969107	1598.59	2980.18	3197.83	-1.07	5.53	0.4038	4.0450
44.00	0.968569	1597.92	2944.41	3223.89	-0.57	5.58	0.4044	4.0504
45.00	0.968025	1597.43	3167.50	3247.97	-2.19	5.65	0.4048	4.0561
46.00	0.967474	1596.55	2946.94	3278.18	-0.16	5.74	0.4055	4.0619
47.00	0.966915	1595.32	2405.60	3304.39	4.46	5.80	0.4064	4.0682
48.00	0.966353	1594.48	2332.73	3326.59	5.24	5.86	0.4070	4.0745
49.00	0.965784	1593.61	2259.82	3354.93	6.07	5.94	0.4077	4.0810
50.00	0.965205	1593.21	2854.14	3383.33	1.45	6.00	0.4082	4.0879
51.00	0.964625	1592.02	2484.86	3407.71	4.68	6.07	0.4090	4.0949
52.00	0.964035	1590.75	2053.36	3438.24	8.48	6.14	0.4099	4.1021
53.00	0.963442	1589.69	1930.83	3460.70	9.68	6.19	0.4107	4.1095
54.00	0.962843	1588.65	1870.11	3489.30	10.43	6.26	0.4115	4.1172
55.00	0.962236	1592.25	7634.12	3517.97	-36.87	6.33	0.4099	4.1252
56.00	0.961624	1586.67	1996.58	3546.69	9.90	6.40	0.4131	4.1331
57.00	0.961005	1585.27	1613.25	3575.48	13.33	6.47	0.4141	4.1414
58.00	0.960380	1584.22	1664.04	3604.32	13.17	6.52	0.4149	4.1497
59.00	0.959751	1588.24	8090.11	3631.18	-40.02	6.62	0.4131	4.1584
60.00	0.959110	1582.43	2300.71	3670.37	8.47	6.76	0.4164	4.1672
61.00	0.958457	1580.62	1505.90	3723.96	15.57	6.83	0.4176	4.1761
62.00	0.957801	1579.61	1743.69	3771.50	14.01	6.90	0.4184	4.1852
63.00	0.957136	1578.30	1645.33	3825.28	15.32	7.01	0.4194	4.1945
64.00	0.956459	1577.15	1771.38	3891.46	14.84	7.19	0.4203	4.2040
65.00	0.955761	1575.93	1860.23	3990.61	14.96	13.81	0.4213	4.2138

Table S.12.

Measured and calculated values for ρ , u , $[U]$, ϕV , ϕK_S , α , K_S and β_{S0} in the 25 to 65 °C temperature range. ct-DNA at 30% (v/v) EtOH. $C_p = 5.13 \times 10^{-4} M_{BP}$, $I = 0.1 M$ (NaCl), $pH = 7.0$.

T (°C)	ρ (g cm ⁻³)	u (m s ⁻¹)	$[U]$ (cm ³ mol ⁻¹)	ϕV (cm ³ mol ⁻¹)	$10^2 \times \phi K_S$ (cm ³ mol ⁻¹ bar ⁻¹)	$10^4 \times \alpha$ (K ⁻¹)	$10^5 \times K_S$ (bar ⁻¹)	$10^5 \times \beta_{S0}$ (bar ⁻¹)
25.00	0.967074	1624.41	1199.96	2720.03	9.17	5.24	0.3919	3.9195
26.00	0.966566	1622.70	840.70	2699.35	11.84	5.15	0.3929	3.9285
27.00	0.966078	1621.11	601.01	2622.26	13.15	5.41	0.3939	3.9373
28.00	0.965521	1619.50	372.96	2672.07	15.37	6.28	0.3949	3.9464
29.00	0.964865	1617.83	72.25	2913.54	19.70	5.88	0.3960	3.9555
30.00	0.964387	1616.23	-108.47	2782.01	20.13	5.45	0.3970	3.9649
31.00	0.963814	1614.51	-361.90	2828.02	22.56	5.97	0.3980	3.9746
32.00	0.963236	1612.83	-603.73	2872.07	24.89	6.08	0.3991	3.9842
33.00	0.962643	1611.18	-785.57	2928.33	26.85	6.14	0.4002	3.9939
34.00	0.962053	1609.44	-1064.54	2976.57	29.54	6.15	0.4013	4.0038
35.00	0.961459	1607.76	-1247.19	3016.80	31.40	6.24	0.4024	4.0138
36.00	0.960852	1606.07	-1454.41	3071.27	33.58	6.34	0.4035	4.0238
37.00	0.960242	1604.34	-1649.94	3121.77	35.65	6.35	0.4046	4.0341
38.00	0.959633	1602.57	-1845.90	3154.11	37.59	6.43	0.4058	4.0447
39.00	0.959008	1600.87	-1932.87	3208.83	38.84	6.50	0.4069	4.0555
40.00	0.958386	1599.01	-2226.88	3251.44	41.67	6.55	0.4081	4.0663
41.00	0.957752	1597.27	-2338.81	3300.23	43.10	6.63	0.4093	4.0773
42.00	0.957117	1595.47	-2487.60	3345.03	44.79	6.65	0.4104	4.0885
43.00	0.956479	1593.63	-2734.28	3377.71	47.20	6.73	0.4117	4.0995
44.00	0.955829	1591.90	-2749.45	3432.83	47.91	6.82	0.4128	4.1111
45.00	0.955176	1590.00	-2984.83	3477.86	50.36	6.85	0.4141	4.1226
46.00	0.954521	1588.16	-3208.37	3518.90	52.68	6.88	0.4154	4.1340
47.00	0.953862	1586.42	-3138.45	3557.97	52.58	6.94	0.4166	4.1461
48.00	0.953197	1584.51	-3277.01	3595.07	54.19	6.99	0.4179	4.1584
49.00	0.952529	1582.64	-3329.95	3628.16	55.07	7.07	0.4191	4.1708
50.00	0.951850	1580.87	-3259.98	3675.62	55.05	7.13	0.4204	4.1833
51.00	0.951172	1578.92	-3374.66	3710.89	56.47	7.17	0.4217	4.1961
52.00	0.950486	1578.01	-2231.85	3752.37	47.37	7.24	0.4225	4.2088
53.00	0.949794	1575.27	-3370.15	3793.93	57.47	7.27	0.4243	4.2215
54.00	0.949105	1574.28	-2286.51	3819.18	48.68	7.32	0.4251	4.2346
55.00	0.948405	1573.03	-1522.03	3864.97	42.73	7.42	0.4261	4.2477
56.00	0.947698	1570.83	-1982.17	3904.72	47.11	7.43	0.4276	4.2606
57.00	0.946996	1567.64	-3609.40	3930.15	61.39	7.47	0.4297	4.2740
58.00	0.946283	1566.71	-2409.18	3967.98	51.61	7.57	0.4305	4.2875
59.00	0.945565	1564.91	-2325.02	4007.93	51.39	7.58	0.4318	4.3009
60.00	0.944850	1561.75	-3946.03	4035.61	65.77	7.61	0.4339	4.3143
61.00	0.944125	1561.49	-2155.85	4069.53	50.77	7.70	0.4344	4.3270
62.00	0.943396	1559.30	-3080.87	4107.64	59.25	7.78	0.4360	4.3383
63.00	0.942657	1556.18	-4545.90	4156.14	72.62	7.90	0.4381	4.3524
64.00	0.941905	1556.34	-2013.10	4208.90	51.19	8.08	0.4383	4.3662
65.00	0.941135	1553.71	-2841.94	4280.37	59.25	9.02	0.4402	4.3807

Table S.13.

Measured and calculated values for ρ , u , $[U]$, ϕV , ϕK_S , α , K_S and β_{S0} in the 25 to 65 °C temperature range. ct-DNA for 40% (v/v) EtOH. $C_P = 5.17 \times 10^{-4} \text{ M}_{BP}$, $I = 0.1 \text{ M (NaCl)}$, $pH = 7.0$.

T (°C)	ρ (g cm ⁻³)	u (m s ⁻¹)	$[U]$ (cm ³ mol ⁻¹)	ϕV (cm ³ mol ⁻¹)	$10^2 \times \phi K_S$ (cm ³ mol ⁻¹ bar ⁻¹)	$10^4 \times \alpha$ (K ⁻¹)	$10^5 \times K_S$ (bar ⁻¹)	$10^5 \times \beta_{S0}$ (bar ⁻¹)
25.00	0.95044	1592.74	-5187.54	3359.77	67.48	7.12	0.4147	4.1197
26.00	0.949761	1590.35	-5340.58	3380.45	69.16	7.19	0.4163	4.1343
27.00	0.949073	1587.97	-5433.41	3399.16	70.33	7.27	0.4178	4.1493
28.00	0.948382	1585.59	-5465.82	3419.95	71.03	7.32	0.4194	4.1646
29.00	0.947685	1583.21	-5510.49	3440.79	71.84	7.38	0.4210	4.1799
30.00	0.946983	1580.84	-5530.90	3467.78	72.50	7.42	0.4226	4.1955
31.00	0.946279	1578.45	-5563.64	3488.71	73.22	7.46	0.4241	4.2111
32.00	0.945572	1576.06	-5608.68	3511.72	74.07	7.51	0.4258	4.2268
33.00	0.944858	1573.64	-5641.74	3540.91	74.87	7.55	0.4274	4.2428
34.00	0.944145	1571.28	-5613.45	3559.93	75.08	7.59	0.4290	4.2589
35.00	0.943425	1568.86	-5634.35	3585.14	75.76	7.64	0.4306	4.2751
36.00	0.942704	1566.47	-5630.63	3604.25	76.17	7.68	0.4323	4.2914
37.00	0.941977	1564.06	-5676.20	3631.60	77.09	7.74	0.4340	4.3077
38.00	0.941244	1561.66	-5672.57	3659.02	77.59	7.78	0.4356	4.3243
39.00	0.940512	1559.22	-5706.10	3680.32	78.36	7.81	0.4373	4.3410
40.00	0.939775	1556.77	-5764.50	3707.83	79.41	7.86	0.4391	4.3578
41.00	0.939034	1554.36	-5699.13	3731.30	79.36	7.91	0.4408	4.3750
42.00	0.938288	1551.90	-5745.34	3758.93	80.31	7.96	0.4425	4.3921
43.00	0.937540	1549.43	-5766.89	3778.38	80.99	7.98	0.4443	4.4095
44.00	0.936791	1546.96	-5776.07	3799.93	81.58	8.02	0.4461	4.4270
45.00	0.936037	1544.46	-5822.76	3823.59	82.53	8.08	0.4479	4.4447
46.00	0.935279	1541.97	-5857.09	3847.31	83.37	8.13	0.4497	4.4625
47.00	0.934516	1539.47	-5879.07	3871.08	84.12	8.18	0.4515	4.4805
48.00	0.933751	1537.00	-5850.94	3894.90	84.42	8.21	0.4533	4.4986
49.00	0.932983	1534.46	-5935.82	3914.64	85.70	8.25	0.4552	4.5168
50.00	0.932211	1531.96	-5958.04	3938.56	86.47	8.30	0.4571	4.5352
51.00	0.931437	1529.46	-6005.48	3956.32	87.41	8.34	0.4590	4.5535
52.00	0.930658	1526.89	-6166.73	3972.06	89.37	8.38	0.4609	4.5719
53.00	0.929876	1524.33	-6303.22	3994.06	91.19	8.43	0.4628	4.5904
54.00	0.929091	1521.78	-6351.65	4020.26	92.25	8.44	0.4648	4.6094
55.00	0.928306	1519.26	-6362.15	4034.04	92.86	8.50	0.4667	4.6285
56.00	0.927513	1516.77	-6334.53	4058.27	93.21	8.55	0.4686	4.6478
57.00	0.926721	1514.31	-6230.49	4063.82	92.68	8.57	0.4706	4.6674
58.00	0.925925	1511.89	-6087.77	4079.80	91.88	8.60	0.4725	4.6870
59.00	0.925128	1510.10	-5139.18	4083.31	83.37	8.63	0.4740	4.7068
60.00	0.924328	1507.95	-4635.63	4091.01	79.03	8.68	0.4758	4.7268
61.00	0.923524	1505.47	-4579.27	4094.56	78.86	8.78	0.4778	4.7467
62.00	0.922706	1503.30	-4278.25	4125.35	76.60	8.97	0.4796	4.7661
63.00	0.921868	1500.61	-4889.29	4183.48	83.30	9.20	0.4817	4.7844
64.00	0.921010	1498.46	-5166.15	4281.56	87.18	9.54	0.4836	4.8010
65.00	0.920110	1496.14	-5611.57	4461.73	93.51	9.78	0.4855	4.8179

Table S.14.

Measured and calculated values for ρ , u , $[U]$, ϕV , ϕK_S , α , K_S and β_{S0} in the 25 to 65 °C temperature range. ct-DNA for 50% (v/v) EtOH. $C_p = 5.18 \times 10^{-4} \text{ M}_{BP}$, $I = 0.1 \text{ M (NaCl)}$, $pH = 7.0$.

T (°C)	ρ (g cm ⁻³)	u (m s ⁻¹)	$[U]$ (cm ³ mol ⁻¹)	ϕV (cm ³ mol ⁻¹)	$10^2 \times \phi K_S$ (cm ³ mol ⁻¹ bar ⁻¹)	$10^4 \times \alpha$ (K ⁻¹)	$10^5 \times K_S$ (bar ⁻¹)	$10^5 \times \beta_{S0}$ (bar ⁻¹)
25.00	0.933344	1540.89	3325.82	-76.78	-34.13	8.10	0.4512	4.5299
26.00	0.932587	1538.28	3356.66	-89.27	-34.67	8.13	0.4531	4.5492
27.00	0.931828	1535.70	3337.08	-93.49	-34.67	8.17	0.4550	4.5681
28.00	0.931065	1533.12	3330.07	-99.79	-34.82	8.22	0.4569	4.5872
29.00	0.930298	1530.53	3285.09	-99.87	-34.55	8.26	0.4589	4.6064
30.00	0.929528	1527.95	3252.61	-102.03	-34.42	8.29	0.4608	4.6256
31.00	0.928757	1525.36	3156.55	-108.36	-33.73	8.31	0.4628	4.6447
32.00	0.927986	1522.79	3009.27	-114.69	-32.55	8.36	0.4647	4.6636
33.00	0.927205	1520.19	2823.36	-106.46	-30.87	8.42	0.4667	4.6826
34.00	0.926424	1517.59	2738.90	-112.80	-30.27	8.44	0.4687	4.7022
35.00	0.925641	1514.98	2743.63	-114.98	-30.47	8.46	0.4707	4.7225
36.00	0.924857	1512.38	2735.55	-121.35	-30.58	8.50	0.4727	4.7427
37.00	0.924069	1509.76	2740.30	-125.63	-30.81	8.55	0.4748	4.7633
38.00	0.923277	1507.13	2745.09	-123.65	-30.97	8.58	0.4768	4.7840
39.00	0.922484	1504.53	2801.32	-127.94	-31.69	8.61	0.4789	4.8050
40.00	0.921688	1501.87	2780.50	-134.34	-31.69	8.67	0.4810	4.8261
41.00	0.920886	1499.23	2824.15	-128.16	-32.20	8.69	0.4831	4.8475
42.00	0.920087	1496.59	2867.95	-130.37	-32.80	8.73	0.4852	4.8691
43.00	0.919281	1493.93	2898.99	-134.69	-33.29	8.78	0.4874	4.8909
44.00	0.918473	1491.27	2891.18	-134.81	-33.37	8.80	0.4896	4.9127
45.00	0.917664	1488.61	2896.36	-137.03	-33.59	8.84	0.4918	4.9346
46.00	0.916850	1485.94	2927.63	-137.15	-34.06	8.88	0.4940	4.9569
47.00	0.916034	1483.22	2906.90	-141.49	-34.05	8.93	0.4962	4.9795
48.00	0.915214	1480.50	2873.01	-137.40	-33.83	8.95	0.4985	5.0021
49.00	0.914395	1477.79	2838.98	-145.97	-33.73	8.98	0.5008	5.0248
50.00	0.913572	1475.06	2752.36	-158.79	-33.14	9.04	0.5031	5.0475
51.00	0.912744	1472.35	2691.69	-156.82	-32.66	9.07	0.5054	5.0704
52.00	0.911916	1469.64	2683.49	-169.67	-32.86	9.08	0.5077	5.0937
53.00	0.911088	1466.96	2701.59	-182.54	-33.33	9.11	0.5100	5.1171
54.00	0.910256	1464.23	2666.97	-191.20	-33.22	9.18	0.5124	5.1408
55.00	0.909417	1461.52	2658.68	-195.62	-33.34	9.21	0.5148	5.1646
56.00	0.908581	1458.89	2862.54	-214.94	-35.82	9.22	0.5171	5.1891
57.00	0.907741	1456.41	3159.95	-227.90	-39.23	9.27	0.5194	5.2133
58.00	0.906898	1454.19	3817.65	-236.64	-46.40	9.31	0.5214	5.2377
59.00	0.906052	1451.64	4011.31	-249.65	-48.79	9.34	0.5238	5.2621
60.00	0.905207	1449.35	4526.06	-279.76	-54.78	9.41	0.5259	5.2865
61.00	0.904350	1446.42	4240.28	-282.16	-52.03	9.60	0.5285	5.3114
62.00	0.903470	1444.06	4556.11	-241.81	-55.21	9.83	0.5308	5.3356
63.00	0.902572	1441.26	4430.41	-173.57	-53.40	10.16	0.5334	5.3608
64.00	0.901636	1438.77	4680.76	-19.51	-54.69	10.28	0.5358	5.3860
65.00	0.900718	1436.25	4851.09	81.24	-55.70	10.19	0.5382	5.4111

Table S.15.

Measured and calculated values for ρ , u , $[U]$, ϕV , ϕK_S , α , K_S and β_{S0} in the 25 to 65 °C temperature range. poly(rA)-poly(rU) for 0% (v/v) EtOH. $C_P = 5.00 \times 10^{-4} \text{ M}_{\text{BP}}$, $I = 0.1 \text{ M (NaCl)}$, $pH = 7.0$.

T (°C)	ρ (g cm ⁻³)	u (m s ⁻¹)	$[U]$ (cm ³ mol ⁻¹)	ϕV (cm ³ mol ⁻¹)	$10^2 \times \phi K_S$ (cm ³ mol ⁻¹ bar ⁻¹)	$10^4 \times \alpha$ (K ⁻¹)	$10^5 \times K_S$ (bar ⁻¹)	$10^5 \times \beta_{S0}$ (bar ⁻¹)
25.00	1.001710	1503.67	-172.90	-124.50	-2.57	2.73	0.4415	4.4162
26.00	1.001437	1506.29	-185.87	-122.53	-2.43	2.76	0.4401	4.4020
27.00	1.001158	1508.80	-159.05	-150.55	-2.90	2.84	0.4388	4.3888
28.00	1.000868	1511.25	-172.03	-184.58	-3.08	2.93	0.4375	4.3759
29.00	1.000570	1513.62	-171.76	-190.63	-3.13	3.02	0.4362	4.3635
30.00	1.000263	1515.92	-184.69	-168.69	-2.82	3.11	0.4350	4.3515
31.00	0.999948	1518.16	-171.25	-158.73	-2.84	3.20	0.4339	4.3401
32.00	0.999624	1520.32	-171.00	-146.78	-2.73	3.27	0.4328	4.3291
33.00	0.999294	1522.43	-131.36	-130.81	-2.93	3.35	0.4317	4.3187
34.00	0.998955	1524.44	-144.30	-120.83	-2.73	3.44	0.4308	4.3087
35.00	0.998607	1526.40	-157.22	-104.85	-2.48	3.51	0.4298	4.2990
36.00	0.998254	1528.30	-143.94	-66.80	-2.26	3.58	0.4289	4.2898
37.00	0.997892	1530.13	-156.84	-24.72	-1.78	3.65	0.4280	4.2810
38.00	0.997525	1531.92	-156.65	31.43	-1.30	3.72	0.4272	4.2725
39.00	0.997149	1533.63	-143.44	79.59	-1.00	3.81	0.4264	4.2645
40.00	0.996765	1535.28	-143.29	119.76	-0.66	3.89	0.4256	4.2569
41.00	0.996373	1536.90	-117.11	167.99	-0.48	3.97	0.4249	4.2496
42.00	0.995974	1538.42	-142.99	208.23	0.09	4.04	0.4242	4.2427
43.00	0.995569	1539.90	-142.86	246.49	0.41	4.11	0.4236	4.2362
44.00	0.995156	1541.32	-142.72	272.72	0.63	4.18	0.4230	4.2301
45.00	0.994736	1542.70	-129.63	300.98	0.75	4.26	0.4224	4.2243
46.00	0.994310	1544.00	-129.53	323.24	0.94	4.32	0.4219	4.2190
47.00	0.993877	1545.25	-129.42	339.48	1.07	4.40	0.4214	4.2139
48.00	0.993434	1546.45	-116.39	355.73	1.10	4.49	0.4209	4.2093
49.00	0.992985	1547.59	-116.30	367.98	1.20	4.64	0.4205	4.2050
50.00	0.992512	1548.69	-116.22	410.47	1.55	4.75	0.4201	4.2009
51.00	0.992041	1549.73	-103.24	436.87	1.66	4.71	0.4197	4.1973
52.00	0.991578	1550.73	-90.28	429.01	1.48	4.71	0.4194	4.1939
53.00	0.991107	1551.67	-64.44	431.23	1.28	4.61	0.4191	4.1909
54.00	0.990664	1552.56	-51.53	356.73	0.55	4.69	0.4188	4.1882
55.00	0.990178	1553.40	-38.62	362.96	0.49	4.93	0.4185	4.1858
56.00	0.989688	1554.19	-25.74	363.14	0.38	4.99	0.4183	4.1836
57.00	0.989191	1554.94	12.86	365.35	0.08	5.04	0.4181	4.1818
58.00	0.988690	1555.63	12.86	363.51	0.06	5.10	0.4180	4.1803
59.00	0.988183	1556.28	38.55	357.62	-0.21	5.17	0.4178	4.1790
60.00	0.987669	1556.89	51.39	359.84	-0.30	5.22	0.4177	4.1780
61.00	0.987152	1557.45	64.21	358.00	-0.42	5.29	0.4176	4.1772
62.00	0.986626	1557.97	89.86	356.16	-0.65	5.36	0.4176	4.1768
63.00	0.986095	1558.46	115.51	354.33	-0.88	5.41	0.4175	4.1765
64.00	0.985558	1558.88	115.47	340.31	-1.00	5.48	0.4175	4.1766
65.00	0.985014	1559.27	166.76	277.56	-1.96	5.55	0.4176	4.1771

Table S.16.

Measured and calculated values for ρ , u , $[U]$, ϕV , ϕK_S , α , K_S and β_{S0} in the 25 to 65 °C temperature range. poly(rA)-poly(rU) for 10% (v/v) EtOH. $C_p = 5.04 \times 10^{-4} \text{ M}_{BP}$, $I = 0.1 \text{ M (NaCl)}$, $pH = 7.0$.

T (°C)	ρ (g cm ⁻³)	u (m s ⁻¹)	$[U]$ (cm ³ mol ⁻¹)	ϕV (cm ³ mol ⁻¹)	$10^2 \times \phi K_S$ (cm ³ mol ⁻¹ bar ⁻¹)	$10^4 \times \alpha$ (K ⁻¹)	$10^5 \times K_S$ (bar ⁻¹)	$10^5 \times \beta_{S0}$ (bar ⁻¹)
25.00	0.98940	1554.55	-2893.76	-1081.52	12.26	2.98	0.4182	4.1739
26.00	0.989105	1556.00	-2662.13	-1101.94	10.14	3.01	0.4176	4.1683
27.00	0.988804	1557.39	-2265.70	-1124.38	6.64	3.08	0.4170	4.1639
28.00	0.988496	1558.72	-1780.93	-1148.86	2.40	3.13	0.4164	4.1602
29.00	0.988185	1560.01	-1207.83	-1187.44	-2.69	3.16	0.4158	4.1571
30.00	0.987871	1561.24	-597.27	-1238.12	-8.18	3.21	0.4153	4.1545
31.00	0.987551	1562.41	-165.12	-1294.88	-12.24	3.30	0.4148	4.1516
32.00	0.987220	1563.52	203.11	-1341.63	-15.68	3.38	0.4144	4.1487
33.00	0.986884	1564.60	545.58	-1398.50	-18.98	3.45	0.4139	4.1459
34.00	0.986539	1565.60	748.19	-1455.41	-21.12	3.55	0.4135	4.1431
35.00	0.986183	1566.56	849.16	-1506.34	-22.36	3.66	0.4132	4.1400
36.00	0.985818	1567.47	912.03	-1553.29	-23.25	3.77	0.4129	4.1371
37.00	0.985439	1568.32	949.53	-1592.23	-23.87	3.88	0.4126	4.1344
38.00	0.985052	1569.13	999.68	-1627.17	-24.56	3.98	0.4123	4.1321
39.00	0.984654	1569.87	1011.87	-1658.12	-24.91	4.10	0.4121	4.1300
40.00	0.984245	1570.58	1024.06	-1674.98	-25.14	4.20	0.4119	4.1280
41.00	0.983827	1571.22	1023.64	-1697.93	-25.31	4.30	0.4117	4.1265
42.00	0.983398	1571.84	1048.52	-1712.82	-25.63	4.40	0.4116	4.1251
43.00	0.982962	1572.39	1048.15	-1721.68	-25.70	4.49	0.4115	4.1241
44.00	0.982515	1572.89	1035.18	-1726.51	-25.63	4.58	0.4114	4.1233
45.00	0.982063	1573.34	1009.63	-1733.38	-25.47	4.66	0.4114	4.1228
46.00	0.981600	1573.75	996.75	-1734.20	-25.37	4.75	0.4113	4.1225
47.00	0.981131	1574.11	983.90	-1733.00	-25.26	4.82	0.4113	4.1225
48.00	0.980655	1574.44	983.69	-1733.84	-25.27	4.88	0.4114	4.1228
49.00	0.980174	1574.71	958.29	-1734.70	-25.07	4.94	0.4114	4.1233
50.00	0.979687	1574.93	932.93	-1731.50	-24.84	5.01	0.4115	4.1241
51.00	0.979192	1575.12	920.21	-1722.22	-24.67	5.09	0.4116	4.1251
52.00	0.978690	1575.24	869.70	-1714.98	-24.20	5.15	0.4118	4.1264
53.00	0.978183	1575.33	831.82	-1687.40	-23.67	5.23	0.4119	4.1278
54.00	0.977668	1575.37	781.37	-1655.75	-23.00	5.30	0.4121	4.1295
55.00	0.977147	1575.37	756.15	-1611.86	-22.44	5.36	0.4124	4.1315
56.00	0.976619	1575.32	718.35	-1543.51	-21.58	5.40	0.4126	4.1337
57.00	0.976092	1575.22	655.36	-1466.93	-20.44	5.46	0.4129	4.1361
58.00	0.975554	1575.08	617.60	-1400.49	-19.59	5.55	0.4132	4.1388
59.00	0.975009	1574.90	554.62	-1307.48	-18.31	5.61	0.4135	4.1416
60.00	0.974460	1574.69	516.87	-1202.14	-17.14	5.67	0.4139	4.1446
61.00	0.973904	1574.42	453.90	-1086.50	-15.67	5.74	0.4142	4.1479
62.00	0.973343	1574.13	353.08	-964.62	-13.84	5.79	0.4146	4.1512
63.00	0.972777	1573.78	277.47	-828.32	-12.09	5.85	0.4150	4.1548
64.00	0.972205	1573.61	517.22	-681.67	-12.88	5.91	0.4154	4.1589
65.00	0.971629	1572.79	-176.64	-549.17	-6.01	5.97	0.4161	4.1625

Table S.17.

Measured and calculated values for ρ , u , $[U]$, ϕV , ϕK_S , α , K_S and β_{S0} in the 25 to 65 °C temperature range. poly(rA)-poly(rU) for 20% (v/v) EtOH. $C_p = 5.09 \times 10^{-4} \text{ M}_{BP}$, $I = 0.1 \text{ M (NaCl)}$, $pH = 7.0$.

T (°C)	ρ (g cm ⁻³)	u (m s ⁻¹)	$[U]$ (cm ³ mol ⁻¹)	ϕV (cm ³ mol ⁻¹)	$10^2 \times \phi K_S$ (cm ³ mol ⁻¹ bar ⁻¹)	$10^4 \times \alpha$ (K ⁻¹)	$10^5 \times K_S$ (bar ⁻¹)	$10^5 \times \beta_{S0}$ (bar ⁻¹)
25.00	0.979152	1600.01	-1755.22	-438.68	7.73	3.95	0.3989	3.9845
26.00	0.978765	1600.09	-1693.82	-479.05	6.92	3.97	0.3991	3.9861
27.00	0.978374	1600.12	-1656.99	-501.36	6.45	4.05	0.3992	3.9877
28.00	0.977973	1600.11	-1632.48	-517.66	6.12	4.13	0.3994	3.9895
29.00	0.977566	1600.06	-1595.73	-542.03	5.64	4.21	0.3996	3.9916
30.00	0.977150	1599.98	-1534.48	-562.39	4.99	4.29	0.3998	3.9940
31.00	0.976727	1599.86	-1497.80	-590.84	4.47	4.38	0.4000	3.9965
32.00	0.976296	1599.70	-1461.14	-591.10	4.17	4.46	0.4003	3.9993
33.00	0.975856	1599.50	-1412.24	-601.45	3.70	4.55	0.4005	4.0023
34.00	0.975408	1599.27	-1363.34	-619.88	3.16	4.64	0.4008	4.0055
35.00	0.974951	1598.99	-1339.03	-628.24	2.90	4.73	0.4012	4.0089
36.00	0.974486	1598.68	-1241.06	-634.60	2.07	4.80	0.4015	4.0128
37.00	0.974015	1598.34	-1130.77	-649.05	1.07	4.89	0.4019	4.0169
38.00	0.973533	1597.96	-1081.89	-655.43	0.62	4.99	0.4023	4.0210
39.00	0.973043	1597.53	-1033.02	-653.74	0.24	5.05	0.4027	4.0254
40.00	0.972550	1597.08	-971.83	-664.19	-0.34	5.13	0.4031	4.0300
41.00	0.972045	1596.58	-922.94	-666.56	-0.75	5.22	0.4036	4.0348
42.00	0.971536	1596.05	-886.33	-672.98	-1.10	5.29	0.4041	4.0398
43.00	0.971017	1595.48	-849.72	-671.32	-1.39	5.36	0.4046	4.0450
44.00	0.970495	1594.89	-788.46	-679.79	-1.96	5.44	0.4051	4.0504
45.00	0.969962	1594.26	-739.49	-680.16	-2.36	5.48	0.4056	4.0561
46.00	0.969432	1593.59	-702.83	-694.74	-2.78	5.52	0.4062	4.0619
47.00	0.968893	1592.89	-592.15	-711.38	-3.82	5.61	0.4068	4.0682
48.00	0.968344	1592.15	-543.07	-717.88	-4.29	5.71	0.4074	4.0745
49.00	0.967788	1591.38	-493.95	-718.29	-4.70	5.78	0.4080	4.0810
50.00	0.967226	1590.57	-407.73	-726.84	-5.48	5.84	0.4087	4.0879
51.00	0.966659	1589.73	-346.15	-731.34	-6.03	5.90	0.4093	4.0949
52.00	0.966084	1588.86	-284.50	-733.81	-6.57	5.97	0.4100	4.1021
53.00	0.965505	1587.94	-235.17	-742.41	-7.06	6.04	0.4107	4.1095
54.00	0.964918	1587.00	-173.39	-740.82	-7.57	6.11	0.4115	4.1172
55.00	0.964325	1586.02	-86.75	-743.32	-8.33	6.16	0.4122	4.1252
56.00	0.963728	1585.03	-37.20	-747.86	-8.79	6.24	0.4130	4.1331
57.00	0.963123	1584.00	37.23	-750.37	-9.45	6.31	0.4138	4.1414
58.00	0.962512	1582.96	99.35	-752.90	-10.00	6.37	0.4146	4.1497
59.00	0.961897	1581.89	198.84	-757.47	-10.89	6.42	0.4155	4.1584
60.00	0.961277	1580.81	286.03	-764.10	-11.70	6.50	0.4163	4.1672
61.00	0.960647	1579.69	348.47	-760.50	-12.22	6.58	0.4172	4.1761
62.00	0.960012	1578.58	460.83	-758.96	-13.17	6.64	0.4180	4.1852
63.00	0.959373	1577.45	585.84	-761.51	-14.28	6.70	0.4189	4.1945
64.00	0.958726	1576.19	573.83	-759.98	-14.20	6.77	0.4198	4.2040
65.00	0.958075	1576.08	2047.50	-760.49	-26.65	6.85	0.4202	4.2138

Table S.18.

Measured and calculated values for ρ , u , $[U]$, ϕV , ϕK_S , α , K_S and β_{S0} in the 25 to 65 °C temperature range. poly(rA)-poly(rU) for 30% (v/v) EtOH. $C_p = 5.13 \times 10^{-4} \text{ M}_{BP}$, $I = 0.1 \text{ M (NaCl)}$, $pH = 7.0$.

T (°C)	ρ (g cm ⁻³)	U (m s ⁻¹)	$[U]$ (cm ³ mol ⁻¹)	ϕV (cm ³ mol ⁻¹)	$10^2 \times \phi K_S$ (cm ³ mol ⁻¹ bar ⁻¹)	$10^4 \times \alpha$ (K ⁻¹)	$10^5 \times K_S$ (bar ⁻¹)	$10^5 \times \beta_{S0}$ (bar ⁻¹)
25.00	0.96543	1623.21	-239.99	6028.18	46.39	5.90	0.3931	3.9195
26.00	0.964859	1621.55	-540.45	6136.11	49.70	5.80	0.3942	3.9285
27.00	0.964310	1619.90	-853.44	6183.77	52.65	5.72	0.3952	3.9373
28.00	0.963756	1618.22	-1166.99	6229.51	55.61	5.75	0.3962	3.9464
29.00	0.963202	1616.52	-1505.17	6267.26	58.71	5.77	0.3973	3.9555
30.00	0.962643	1614.81	-1819.88	6301.05	61.61	5.81	0.3984	3.9649
31.00	0.962082	1613.10	-2062.85	6324.84	63.88	5.86	0.3995	3.9746
32.00	0.961516	1611.38	-2354.53	6346.68	66.53	5.90	0.4005	3.9842
33.00	0.960947	1609.63	-2658.87	6356.47	69.20	5.94	0.4017	3.9939
34.00	0.960375	1607.90	-2927.50	6370.32	71.63	6.02	0.4028	4.0038
35.00	0.959791	1606.13	-3220.89	6392.34	74.34	6.12	0.4039	4.0138
36.00	0.959201	1604.36	-3526.93	6414.43	77.16	6.18	0.4050	4.0238
37.00	0.958605	1602.57	-3797.28	6438.60	79.74	6.27	0.4062	4.0341
38.00	0.957997	1600.77	-4031.83	6470.96	82.10	6.41	0.4074	4.0447
39.00	0.957378	1598.96	-4254.75	6515.57	84.49	6.49	0.4085	4.0555
40.00	0.956754	1597.12	-4526.77	6564.32	87.32	6.56	0.4098	4.0663
41.00	0.956121	1595.27	-4775.06	6613.19	89.98	6.66	0.4110	4.0773
42.00	0.955481	1593.34	-5084.94	6670.27	93.22	6.72	0.4123	4.0885
43.00	0.954837	1591.47	-5370.92	6717.32	96.20	6.78	0.4135	4.0995
44.00	0.954185	1589.58	-5584.45	6778.68	98.73	6.86	0.4148	4.1111
45.00	0.953528	1587.66	-5847.34	6834.08	101.63	6.91	0.4161	4.1226
46.00	0.952867	1585.73	-6184.07	6889.57	105.15	6.97	0.4174	4.1340
47.00	0.952200	1583.77	-6387.23	6947.21	107.62	7.04	0.4187	4.1461
48.00	0.951527	1581.80	-6603.12	7002.95	110.20	7.09	0.4200	4.1584
49.00	0.950852	1579.83	-6782.77	7052.67	112.44	7.11	0.4214	4.1708
50.00	0.950174	1577.86	-6962.83	7100.44	114.68	7.17	0.4227	4.1833
51.00	0.949489	1575.92	-7069.55	7152.40	116.36	7.23	0.4241	4.1961
52.00	0.948800	1574.01	-7164.10	7202.43	117.93	7.29	0.4254	4.2088
53.00	0.948105	1572.05	-7345.19	7252.58	120.24	7.36	0.4268	4.2215
54.00	0.947405	1570.06	-7502.22	7302.84	122.36	7.41	0.4282	4.2346
55.00	0.946701	1568.09	-7634.87	7359.32	124.34	7.46	0.4296	4.2477
56.00	0.945993	1566.13	-7804.81	7403.66	126.55	7.51	0.4310	4.2606
57.00	0.945280	1564.22	-7851.36	7454.23	127.77	7.55	0.4324	4.2740
58.00	0.944565	1562.31	-7873.29	7498.75	128.74	7.62	0.4337	4.2875
59.00	0.943840	1560.34	-8007.02	7555.71	130.78	7.69	0.4352	4.3009
60.00	0.943113	1558.47	-8028.99	7610.72	131.85	7.76	0.4366	4.3143
61.00	0.942377	1556.58	-8274.49	7669.99	134.87	7.80	0.4380	4.3270
62.00	0.941642	1554.73	-8781.10	7723.17	140.08	7.86	0.4393	4.3383
63.00	0.940898	1552.96	-8567.28	7784.74	139.21	7.95	0.4407	4.3524
64.00	0.940147	1551.25	-8377.50	7838.23	138.46	8.00	0.4420	4.3662
65.00	0.939394	1549.50	-8112.68	7877.41	136.94	8.07	0.4434	4.3807

Table S.19.

Measured and calculated values for ρ , u , $[U]$, ϕV , ϕK_S , α , K_S and β_{S0} in the 25 to 65 °C temperature range. poly(rA)-poly(rU) for 40% (v/v) EtOH. $C_P = 5.17 \times 10^{-4} \text{ M}_{BP}$, $I = 0.1 \text{ M}$ (NaCl), $pH = 7.0$.

T (°C)	ρ (g cm ⁻³)	u (m s ⁻¹)	$[U]$ (cm ³ mol ⁻¹)	ϕV (cm ³ mol ⁻¹)	$10^2 \times \phi K_S$ (cm ³ mol ⁻¹ bar ⁻¹)	$10^4 \times \alpha$ (K ⁻¹)	$10^5 \times K_S$ (bar ⁻¹)	$10^5 \times \beta_{S0}$ (bar ⁻¹)
25.00	0.949993	1592.34	-5672.36	4268.88	78.97	7.19	0.4152	4.1197
26.00	0.949310	1589.93	-5850.36	4298.35	80.96	7.18	0.4167	4.1343
27.00	0.948630	1587.54	-5956.09	4301.42	82.16	7.19	0.4183	4.1493
28.00	0.947948	1585.15	-6001.45	4304.51	82.86	7.20	0.4198	4.1646
29.00	0.947265	1582.76	-6059.10	4297.43	83.59	7.23	0.4214	4.1799
30.00	0.946578	1580.36	-6116.96	4294.44	84.36	7.27	0.4230	4.1955
31.00	0.945890	1577.95	-6175.03	4283.29	85.06	7.30	0.4246	4.2111
32.00	0.945196	1575.53	-6257.72	4280.31	86.05	7.35	0.4262	4.2268
33.00	0.944500	1573.10	-6304.03	4273.25	86.71	7.38	0.4278	4.2428
34.00	0.943801	1570.69	-6338.16	4264.15	87.25	7.46	0.4295	4.2589
35.00	0.943092	1568.27	-6360.17	4267.35	87.79	7.53	0.4311	4.2751
36.00	0.942382	1565.85	-6394.53	4264.42	88.40	7.57	0.4328	4.2914
37.00	0.941666	1563.41	-6478.27	4269.71	89.50	7.64	0.4345	4.3077
38.00	0.940943	1560.94	-6562.39	4277.08	90.63	7.71	0.4362	4.3243
39.00	0.940215	1558.49	-6609.67	4290.64	91.51	7.76	0.4379	4.3410
40.00	0.939484	1556.01	-6706.65	4306.28	92.84	7.82	0.4396	4.3578
41.00	0.938745	1553.53	-6729.70	4326.09	93.58	7.88	0.4414	4.3750
42.00	0.938003	1551.04	-6814.82	4345.95	94.86	7.95	0.4431	4.3921
43.00	0.937254	1548.55	-6862.97	4367.93	95.86	7.99	0.4449	4.4095
44.00	0.936505	1546.07	-6886.37	4389.94	96.64	8.04	0.4467	4.4270
45.00	0.935748	1543.56	-6947.33	4420.26	97.83	8.10	0.4485	4.4447
46.00	0.934990	1541.05	-7008.49	4444.46	98.98	8.13	0.4504	4.4625
47.00	0.934228	1538.53	-7057.40	4466.64	100.01	8.16	0.4522	4.4805
48.00	0.933465	1536.00	-7106.51	4486.81	101.04	8.21	0.4541	4.4986
49.00	0.932696	1533.48	-7168.26	4509.10	102.21	8.26	0.4559	4.5168
50.00	0.931924	1530.96	-7217.66	4533.51	103.29	8.30	0.4578	4.5352
51.00	0.931148	1528.48	-7241.90	4555.90	104.13	8.36	0.4597	4.5535
52.00	0.930367	1525.95	-7354.58	4576.29	105.76	8.40	0.4616	4.5719
53.00	0.929586	1523.49	-7366.41	4596.72	106.48	8.43	0.4635	4.5904
54.00	0.928799	1521.01	-7327.86	4627.58	106.85	8.49	0.4654	4.6094
55.00	0.928008	1518.56	-7251.08	4654.36	106.83	8.53	0.4673	4.6285
56.00	0.927215	1516.11	-7174.05	4679.11	106.78	8.57	0.4692	4.6478
57.00	0.926419	1513.62	-7109.64	4693.52	106.76	8.61	0.4711	4.6674
58.00	0.925620	1511.14	-7044.97	4716.30	106.82	8.65	0.4731	4.6870
59.00	0.924816	1508.64	-7005.65	4734.98	107.07	8.70	0.4751	4.7068
60.00	0.924010	1506.16	-6927.83	4755.79	106.98	8.75	0.4771	4.7268
61.00	0.923200	1503.68	-6875.31	4772.47	107.09	8.79	0.4791	4.7467
62.00	0.922387	1501.10	-7104.72	4793.38	109.91	8.83	0.4811	4.7661
63.00	0.921571	1498.65	-7411.13	4805.98	113.38	8.87	0.4831	4.7844
64.00	0.920751	1496.35	-7884.50	4824.90	118.50	8.90	0.4851	4.8010
65.00	0.919931	1494.41	-7843.30	4837.57	118.64	8.91	0.4867	4.8179

Table S.20.

Measured and calculated values for ρ , u , $[U]$, ϕV , ϕK_S , α , K_S and β_{S0} in the 25 to 65 °C temperature range. poly(rA)·poly(rU) for 50% (v/v) EtOH. $C_P = 5.18 \times 10^{-4} \text{ M}_{BP}$, $I = 0.1 \text{ M (NaCl)}$, $pH = 7.0$.

T (°C)	ρ (g cm ⁻³)	u (m s ⁻¹)	$[U]$ (cm ³ mol ⁻¹)	ϕV (cm ³ mol ⁻¹)	$10^2 \times \phi K_S$ (cm ³ mol ⁻¹ bar ⁻¹)	$10^4 \times \alpha$ (K ⁻¹)	$10^5 \times K_S$ (bar ⁻¹)	$10^5 \times \beta_{S0}$ (bar ⁻¹)
25.00								4.5299
26.00	0.931350	1532.45	-3972.67	2472.50	55.33	2.97	0.4572	4.5492
27.00	0.930583	1529.90	-3966.72	2486.96	55.63	3.06	0.4591	4.5681
28.00	0.929814	1527.35	-3948.15	2495.23	55.77	3.16	0.4610	4.5872
29.00	0.929045	1524.77	-3992.64	2501.44	56.46	3.26	0.4630	4.6064
30.00	0.928268	1522.18	-4049.94	2515.98	57.36	3.35	0.4649	4.6256
31.00	0.927492	1519.57	-4183.39	2522.24	58.89	3.44	0.4669	4.6447
32.00	0.926714	1516.95	-4405.98	2532.67	61.30	3.53	0.4689	4.6636
33.00	0.925931	1514.29	-4680.17	2547.29	64.25	3.61	0.4710	4.6826
34.00	0.925147	1511.65	-4828.11	2549.45	65.93	3.71	0.4730	4.7022
35.00	0.924360	1509.01	-4874.72	2557.87	66.73	3.79	0.4751	4.7225
36.00	0.923571	1506.37	-4947.00	2564.22	67.76	3.87	0.4772	4.7427
37.00	0.922777	1503.71	-5006.82	2574.77	68.72	3.95	0.4793	4.7633
38.00	0.921982	1501.04	-5066.88	2585.35	69.70	4.03	0.4814	4.7840
39.00	0.921184	1498.37	-5114.33	2593.86	70.54	4.13	0.4835	4.8050
40.00	0.920383	1495.69	-5174.82	2600.30	71.49	4.22	0.4857	4.8261
41.00	0.919578	1492.99	-5222.74	2615.14	72.41	4.30	0.4879	4.8475
42.00	0.918772	1490.29	-5270.83	2630.01	73.34	4.38	0.4901	4.8691
43.00	0.917963	1487.57	-5332.07	2634.42	74.31	4.46	0.4923	4.8909
44.00	0.917149	1484.85	-5432.31	2649.36	75.77	4.54	0.4945	4.9127
45.00	0.916334	1482.09	-5571.91	2662.22	77.61	4.62	0.4968	4.9346
46.00	0.915517	1479.34	-5660.08	2670.91	78.92	4.69	0.4991	4.9569
47.00	0.914696	1476.57	-5761.65	2679.62	80.37	4.79	0.5014	4.9795
48.00	0.913872	1473.83	-5837.43	2694.68	81.64	4.88	0.5038	5.0021
49.00	0.913045	1471.07	-5952.70	2705.55	83.28	5.05	0.5061	5.0248
50.00	0.912216	1468.28	-6133.83	2708.01	85.50	5.17	0.5085	5.0475
51.00	0.911383	1465.48	-6328.75	2723.16	88.02	5.13	0.5109	5.0704
52.00	0.910548	1462.66	-6498.24	2727.77	90.19	5.13	0.5133	5.0937
53.00	0.909710	1459.84	-6681.50	2738.75	92.59	5.03	0.5158	5.1171
54.00	0.908868	1457.01	-6865.47	2753.99	95.06	5.11	0.5183	5.1408
55.00	0.908025	1454.19	-7036.90	2760.79	97.34	5.37	0.5208	5.1646
56.00	0.907177	1451.34	-7143.10	2769.74	99.00	5.44	0.5233	5.1891
57.00	0.906328	1448.48	-7368.79	2778.70	101.90	5.50	0.5259	5.2133
58.00	0.905476	1445.62	-7582.08	2791.95	104.75	5.57	0.5285	5.2377
59.00	0.904621	1442.76	-7822.71	2800.97	107.86	5.65	0.5311	5.2621
60.00	0.903761	1439.90	-8090.83	2805.76	111.24	5.70	0.5337	5.2865
61.00	0.902901	1437.01	-8346.80	2812.70	114.55	5.78	0.5363	5.3114
62.00	0.902035	1434.13	-8750.41	2826.07	119.52	5.86	0.5390	5.3356
63.00	0.901170	1431.32	-8914.52	2826.64	121.85	5.92	0.5417	5.3608
64.00	0.900298	1428.62	-8971.46	2846.49	123.24	6.00	0.5442	5.3860
65.00	0.899425	1426.03	-8920.61	2853.53	123.34	6.08	0.5467	5.4111

Table S.21.Measured values of neat solvent, $\eta_0 \times 10^3$, Pa s, for different ethanol contents in the 25 to 65 °C temperature range.

<i>T</i> (°C)	$\eta_0 \times 10^3$, Pa s							
	0 % (v/v) EtOH	10 % (v/v) EtOH	15 % (v/v) EtOH	20 % (v/v) EtOH	25 % (v/v) EtOH	30 % (v/v) EtOH	40 % (v/v) EtOH	50 % (v/v) EtOH
25.00	0.91820	1.28927	1.35180	1.56531	1.69055	1.88905	2.15276	2.25556
30.00	0.82321	1.11963	1.17312	1.33915	1.43864	1.66652	1.80698	1.89636
35.00	0.73599	0.99707	1.02817	1.15974	1.23392	1.36282	1.53414	1.62131
40.00	0.66273	0.86925	0.90894	1.01542	1.07078	1.17362	1.31876	1.39078
45.00	0.61105	0.78073	0.81451	0.90098	0.94404	1.03330	1.15754	1.22160
50.00	0.55997	0.70336	0.73362	0.80138	0.83885	0.90650	1.01258	1.06976
55.00	0.51717	0.63804	0.66221	0.72355	0.74846	0.80861	0.90018	0.95077