

Supplementary Information

Diffusion Characteristics of Water Molecules in a Lamellar Structure Formed by Triblock Copolymers

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Table S1 The generalized diffusion coefficient ($[D] = [\text{Å}^2/\text{ps}^\alpha]$) and subdiffusive exponent.

Layer ID	D_x	$errD_x$	α_x	$err\alpha_x$	D_y	$errD_y$	α_y	$err\alpha_y$	D_z	$errD_z$	α_z	$err\alpha_z$
L1	1.54	0.00	1.00	0.00	1.54	0.00	1.00	0.00	1.08	0.02	1.02	0.01
L2	1.48	0.00	0.96	0.00	1.50	0.01	0.96	0.00	0.98	0.01	0.98	0.01
L3	1.33	0.02	0.71	0.00	1.32	0.02	0.72	0.00	0.67	0.00	0.75	0.00
L4	0.80	0.01	0.47	0.00	0.78	0.01	0.49	0.00	0.40	0.00	0.53	0.00
L5	0.52	0.01	0.38	0.00	0.55	0.01	0.37	0.00	0.32	0.01	0.44	0.01
L6	0.49	0.01	0.45	0.01	0.51	0.01	0.45	0.01	0.31	0.00	0.45	0.01
L7	0.92	0.01	0.54	0.00	0.92	0.01	0.54	0.00	0.46	0.00	0.59	0.00
L8	1.40	0.02	0.80	0.00	1.41	0.02	0.80	0.00	0.76	0.00	0.83	0.00
L9	1.53	0.01	0.97	0.00	1.55	0.01	0.97	0.00	1.02	0.01	0.99	0.01
L10	1.56	0.00	1.00	0.00	1.58	0.01	1.00	0.00	1.13	0.04	0.98	0.02

Table S2 The diffusion coefficient ($\times 10^{-5} \text{ cm}^2/\text{s}$) by linear fit ($\langle r^2(t) \rangle = 2Dt$), within $t < 8$ ps.

Layer ID	D_x	$Err. D_x$	D_y	$Err. D_y$	D_z	$Err. D_z$
L1	7.75	0.01	7.74	0.01	5.71	0.03
L2	6.90	0.02	6.90	0.02	4.75	0.01
L3	3.86	0.11	3.87	0.11	2.14	0.07
L8	4.76	0.09	4.80	0.09	2.81	0.06
L9	7.21	0.01	7.22	0.01	5.09	0.01
L10	7.76	0.01	7.78	0.01	5.58	0.05

Table S3 The dynamic viscosity of the medium calculated by Einstein-Stokes relation (cP)

Layer ID	η_x	$Err. \eta_x$	η_y	$Err. \eta_y$	η_z	$Err. \eta_z$
L1	0.22	0.00	0.22	0.00	0.30	0.00
L2	0.24	0.00	0.24	0.00	0.36	0.00
L3	0.44	0.01	0.44	0.01	0.79	0.03
L8	0.36	0.01	0.35	0.01	0.60	0.01
L9	0.23	0.00	0.23	0.00	0.33	0.00
L10	0.22	0.00	0.22	0.00	0.30	0.00