Domain size polydispersity effects on the structural and dynamical properties in lipid monolayers with phase coexistence.

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Supplementary Material

ω	N_{pol}	$R_\alpha[px]$	N_α
0	1	5	676
0.1	3	4	72
		5	532
		6	72
0.2	5	3	37
		4	165
		5	272
		6	165
		7	37
0.3	7	2	25
		3	75
		4	147
		5	182
		6	147
		7	75
		8	25
0.4	9	1	19
		2	44
		3	84
		4	122
		5	138
		6	122
		7	84
		8	44
		9	19

Table S.1 Polydispersity, number of domain types, radius for each domain type (with $\alpha = 1, N_{pol}$), and number of domains of each type, for the systems considered. The area fraction is $\phi = 0.20$ for all systems.

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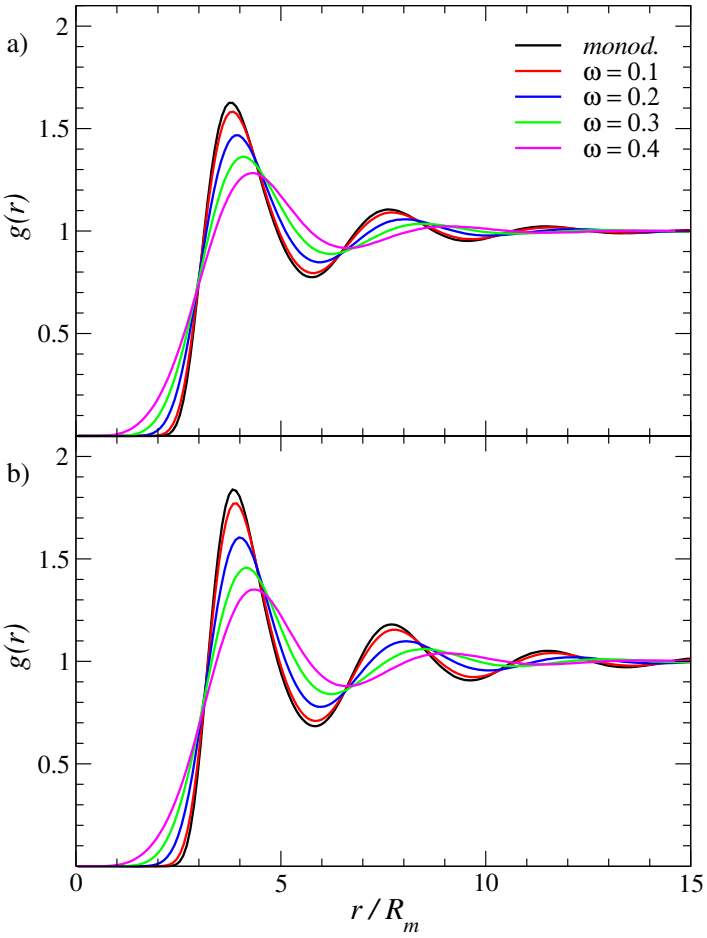

Fig. S.1 Radial distribution function for monodisperse and polydisperse systems with (a) $f = 12$, and (b) $f = 18$.

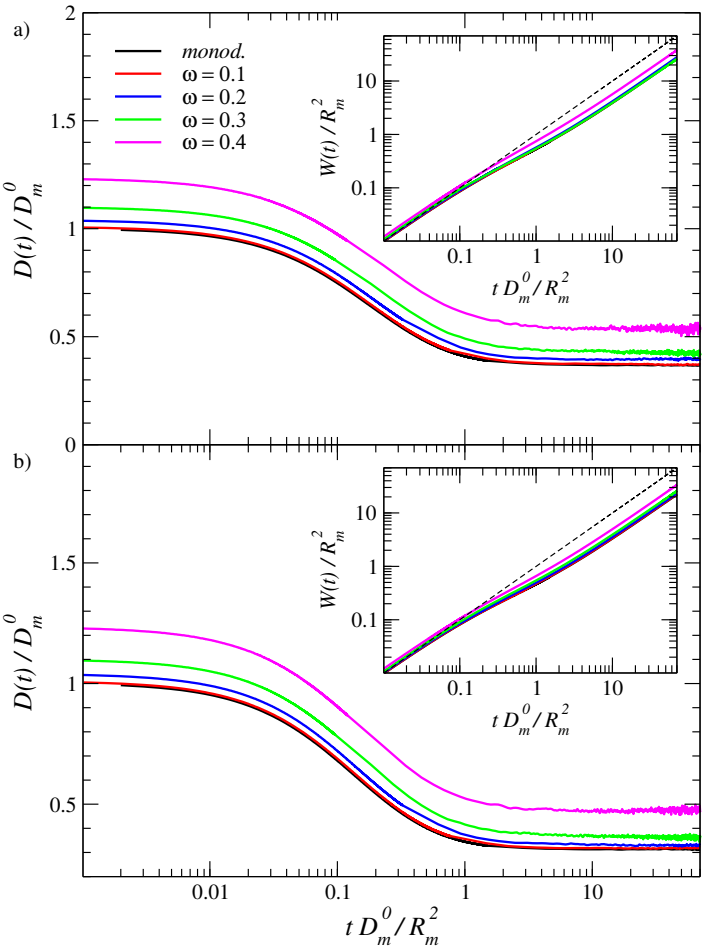

Fig. S.2 Average diffusion coefficient $D(t)$ and average MSD (inset) for monodisperse and polydisperse systems with (a) $f = 12$, and (b) $f = 18$. In the insets, the dashed line indicates the low–density limit for the monodisperse system, $W(t) = D_m^0 t$.

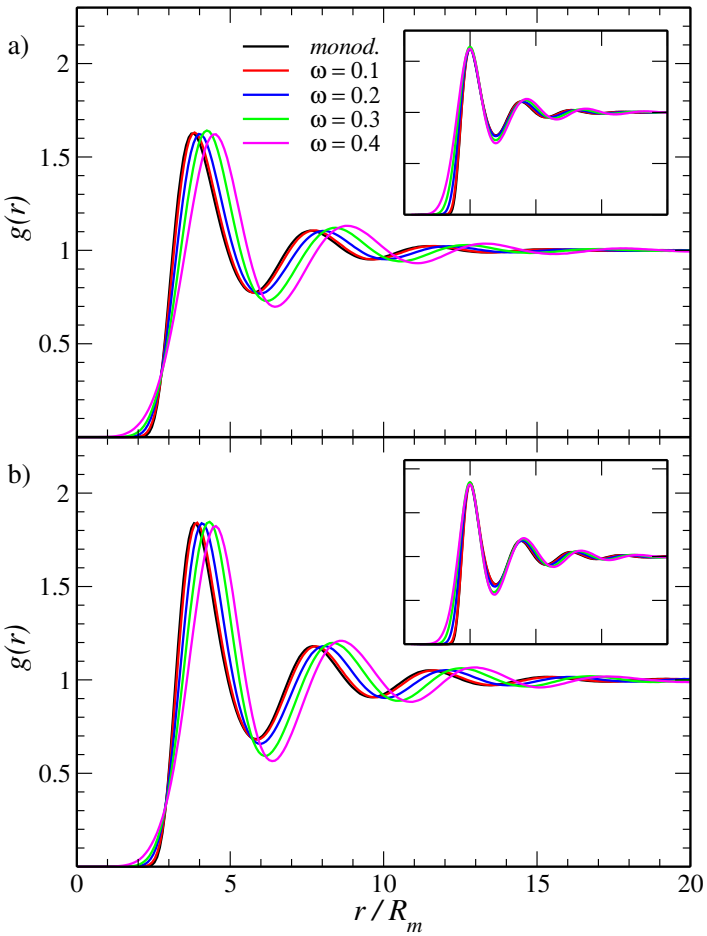

Fig. S.3 Radial distribution function for systems with (a) $g(r_{max}) = 1.63$ and $f_m = 12$ (monodisperse), $f = 13.5$ ($\omega = 0.1$), $f = 19$ ($\omega = 0.2$), $f = 36$ ($\omega = 0.3$), and , $f = 72$ ($\omega = 0.4$), and (b) $g(r_{max}) = 1.84$ and $f_m = 18$ (monodisperse), $f = 20.5$ ($\omega = 0.1$), $f = 32.5$ ($\omega = 0.2$), $f = 75$ ($\omega = 0.3$), and , $f = 175$ ($\omega = 0.4$). Inset: the data have been horizontally shifted the data have been horizontally shifted to match the first peak position.

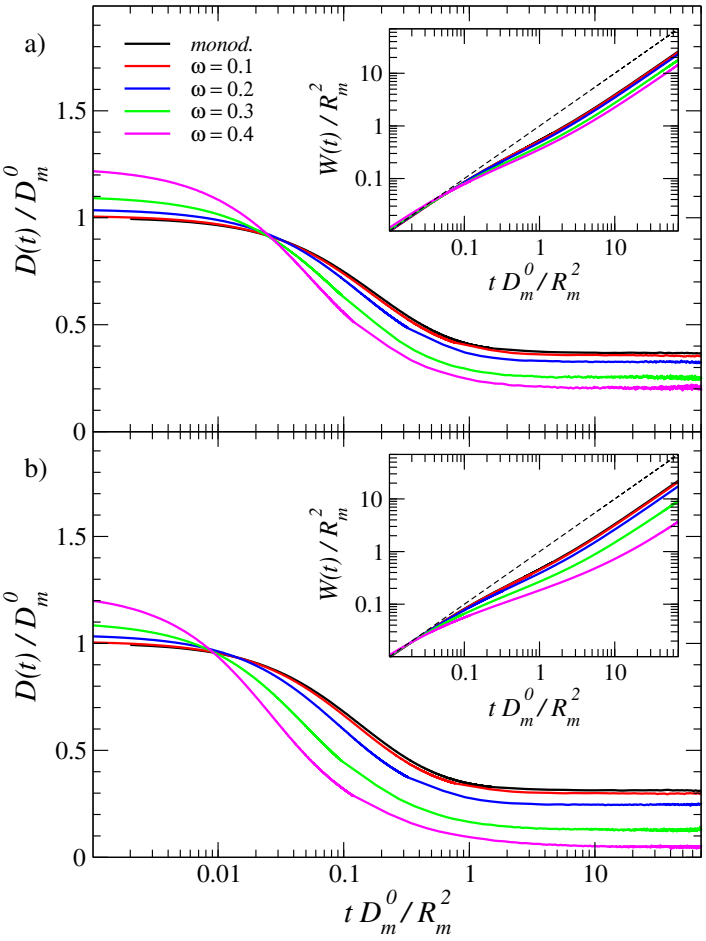

Fig. S.4 Average diffusion coefficient and average MSD (inset) for monodisperse and polydisperse models that lead to similar structures (see fig. **??**) with (a) $g(r_{max}) = 1.63$, $f_m = 12$, and (b) $g(r_{max}) = 1.84$, $f_m = 18$. In the insets, the dashed line indicates the low–density limit for the monodisperse system, $W(t) = D_m^0\, t$.