Effects of Cardiolipin on Membrane Morphology: A Langmuir Monolayer Study

Authors: Minh Dinh Phan and Kwanwoo Shin*

Department of Chemistry and Institute of Biological Interfaces, Sogang University, 35 Baekbeom-ro, Mapo-gu, Seoul 121-742, Korea

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*Corresponding author. (K. S.) Email: kwshin@sogang.ac.kr; Tel: 82-2-705-8441; Fax: 82-2-701-0967

SUPPORTING MATERIAL

Supporting Figures

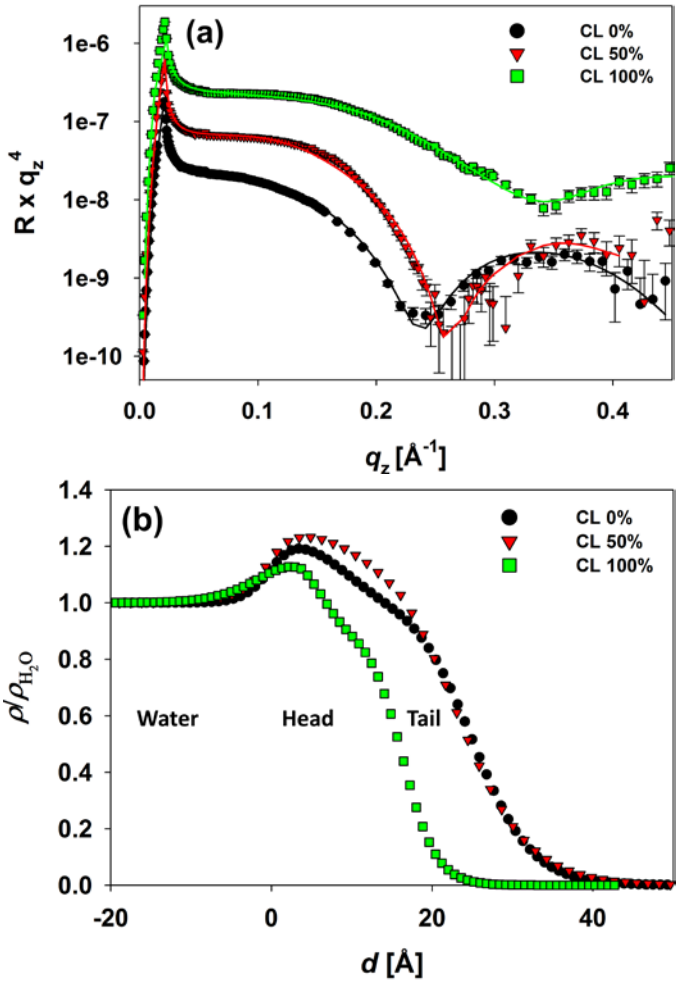

Figure S1: (a) XR curves measured at the water-air interface for monolayers composed of Φ_{CL} = 50 mol%, in comparison with pure DPPC (CL 0%) and pure CL (CL 100%). The solid lines are the least-square fits. (b)

Corresponding normalized electron density profiles of monolayers obtained from the reflectivity fits of (a). All of measurements were carried out at π = 30 mN/m. The temperature was maintained at 16 ^{o}C.

Table S1: X-ray reflectivity fitting parameters for Φ_{CL} = 50 mol%, in comparison with smaller molar ratios of CL, where the electron density ρ_h and ρ_t, the thickness d_h and d_t for the headgroup and the tail group regions, respectively, and the interfacial roughnesses $\sigma_{h/t}$ and $\sigma_{t/a}$ for headgroup/tail and tail group/air interfaces, respectively.

	σ_w (Å) [b]	ρ_h (e^-/Å^3) [a]	$\sigma_{h/t}$ (Å) [b]	d_h (Å) [b]	ρ_t (e^-/Å^3) [a]	$\sigma_{t/a}$ (Å) [b]	d_t (Å) [b]
0%	3.0	4.51	5.9	8.5	3.60	6.6	16.6
5%	3.0	4.76	7.5	8.0	3.50	5.4	16.5
10%	3.0	4.65	7.9	8.0	3.45	5.3	16.5
20%	3.0	4.64	9.9	8.0	3.65	6.3	17.0
50%	3.0	4.67	10.1	7.9	4.28	8.0	14.7
100%	5.7	4.40	3.1	5.7	3.18	3.7	10.6

[a] The uncertainty of ρ was 2% of the value. [b] The error range of σ and d was < ±0.2 Å.