

Supporting Information

**Systematic Characterization of DMPC/DHPC Self-Assemblies
and Their Phase Behaviors in Aqueous Solution**

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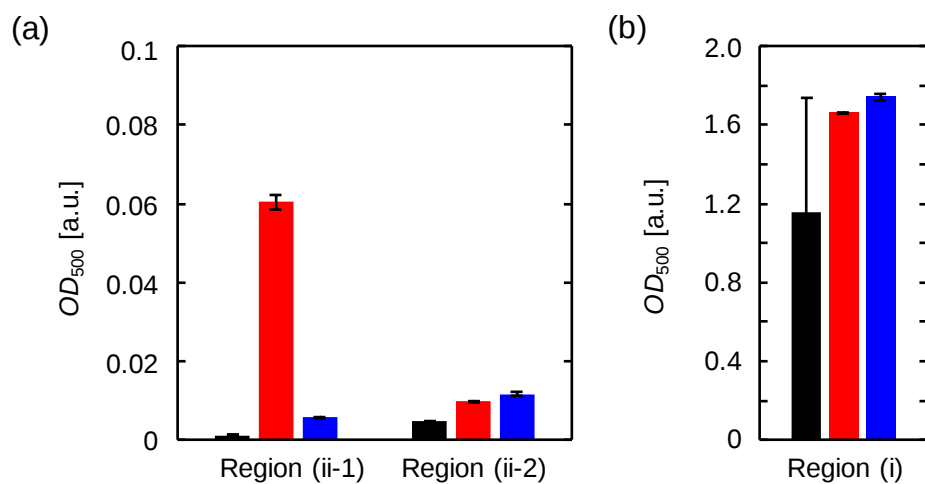


Figure S1 Temperature dependence on turbidity (OD_{500}) of 20 mM DMPC/DHPC self-assembly; $X_{\text{DHPC}} = 0.17$ (Region (i)), 0.4 (Region (ii-1)), and 0.95 (Region (ii-2)). This experiment was conducted in turn heating (20 °C (*black*) $\rightarrow$ 30 °C (*red*)) to cooling (30 °C (*red*) $\rightarrow$ 20 °C (*blue*)).

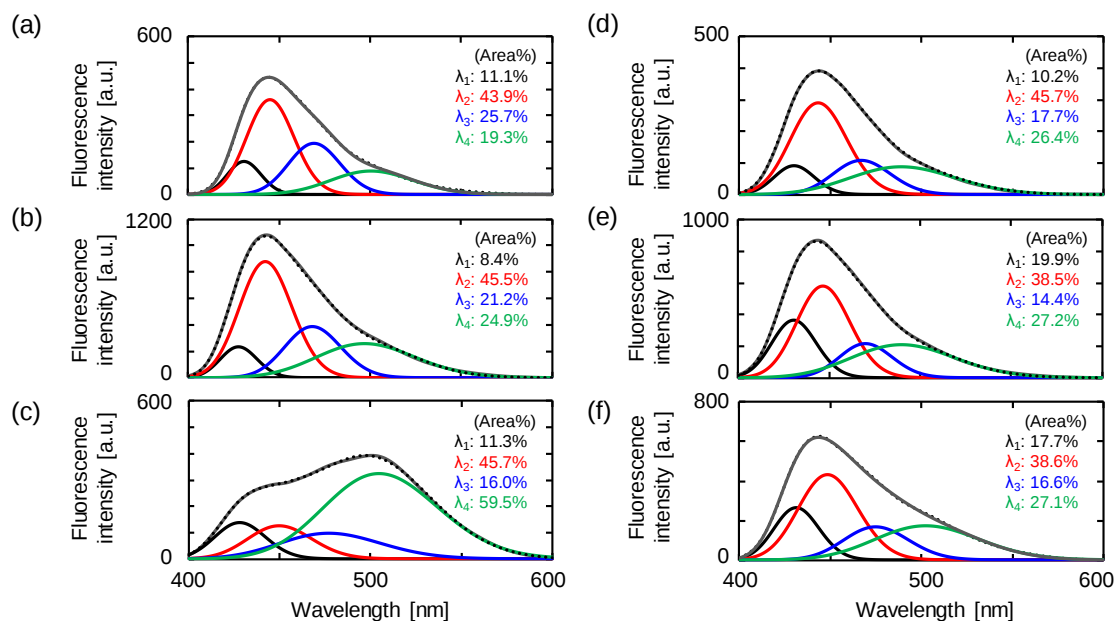


Figure S2 Spectra of Laurdan in each 20 mM DMPC/DHPC membrane at 20 °C. (a) $X_{\text{DHPC}} = 0.17$ (Region (i)). (b) $X_{\text{DHPC}} = 0.4$ (Region (ii-1)). (c) $X_{\text{DHPC}} = 0.95$ (Region (ii-2)). The spectra were as follows: (d) $X_{\text{DHPC}} = 0.17$, (e) $X_{\text{DHPC}} = 0.4$ and (f) $X_{\text{DHPC}} = 0.95$ at 8 mM total lipid concentration.