10.1071/CH21161
Australian Journal of Chemistry

Supplementary Material

Effects of cryoprotectants on phospholipid monolayers – concentration and species dependence

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Table S1 shows the measured surface tensions. It is seen that DMF has the most significant surface activity, reducing the surface tension by 11.2 $mN.m^{-1}$compared to pure water. DMSO also showed significant surface activity, while the other molecules had minimal activity. Concentrated DMSO (10% v/v) has a significant effect on the surface tension compared to the 5% v/v concentration studied previously.[1]

Table S1: Surface tension of water and CPA sub phases

Sub phase solutions	**Surface tension "γ" (mN/m)**	
	5 % CPA [1]	10% CPA
Water	72.6	72.6
glycerol	74.8	71.6
EG	72.8	70.7
DMF	67.0	61.4
DMSO	72.6	67.4

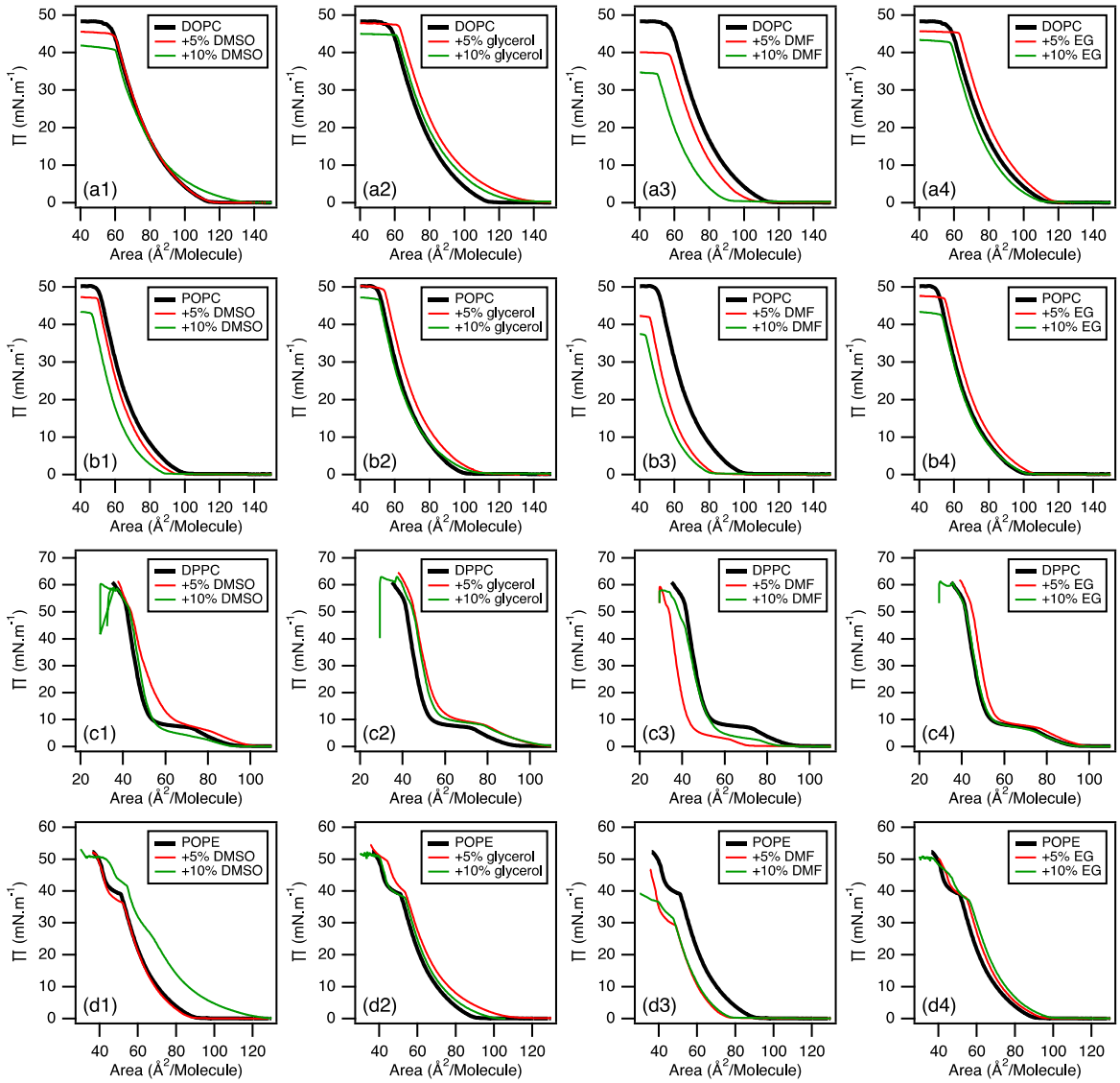

Figure S1: Effect of concentration of CPA subphases on lipid monolayers: DOPC (a); POPC (b); DPPC (c); POPE (d) with DMSO (1); glycerol (2); DMF (3); EG (4).

References

[1] R. Raju, J. Torrent-Burgués, G. Bryant, Interactions of cryoprotective agents with phospholipid membranes - A Langmuir monolayer study, Chemistry and Physics of Lipids 231 (2020) 104949.