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Interfacial and micellar properties of binary mixtures of surfactant and phospholipid in an aqueous medium

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In the original paper in Eqs. (2) and (3), the factor “1/4.61” should be replaced by the factor “1/2.303”, since both the components DPS and DHPC are zwitterionic. The corrected results, $\Gamma_{\max}$ and $\Delta G_{\text{ad}}^{\circ}$, are presented in Table 3. As shown in this new Table 3, the $\Gamma_{\max}$ value increases with an increase of the mole fraction of DPS because a DPS molecule has a single alkyl chain whereas DHPC has double chains. Furthermore the $\Delta G_{\text{ad}}^{\circ}$ of DHPC is more negative than that of DPS. This means DHPC molecules exhibit higher attractive hydrophobic interaction through their double chains than DPS.

Table 3 Values of maximum surface excess ($\Gamma_{\max}$), minimum area per molecule ($A_{\min}$), surface pressure at cmc (π_{cmc}), the standard free energy of micellization ($\Delta G_{\text{m}}^{\circ}$), and the standard free energy of interfacial adsorption ($\Delta G_{\text{ad}}^{\circ}$) for DPS + DHPC binary mixture in an aqueous medium at 298 K

α_{DPS}	$\Gamma_{\max} \times 10^6$ (mol m ⁻²)	$A_{\min}$ (nm ²)	π_{cmc} (mN m ⁻¹)	$-\Delta G_{\text{m}}^{\circ}$ (kJ mol ⁻¹)	$-\Delta G_{\text{ad}}^{\circ}$ (kJ mol ⁻¹)
0.0000	2.76	0.60	43.2	25.76	41.41
0.1032	3.14	0.53	43.9	25.77	39.75
0.3040	3.22	0.52	43.5	25.73	39.23
0.5211	3.24	0.51	41.6	25.70	38.54
0.7412	3.28	0.50	39.0	25.71	37.60
0.9164	3.38	0.49	39.2	25.09	36.69
1.0000	4.20	0.40	35.0	24.19	32.52