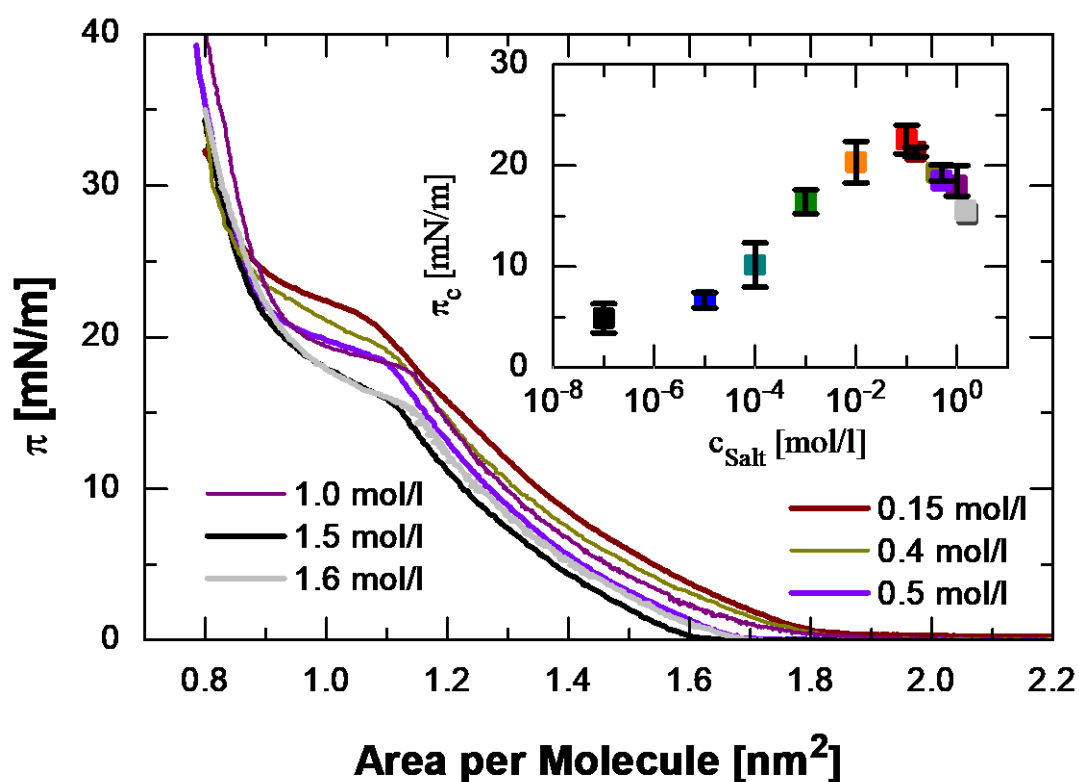


# Supporting Information

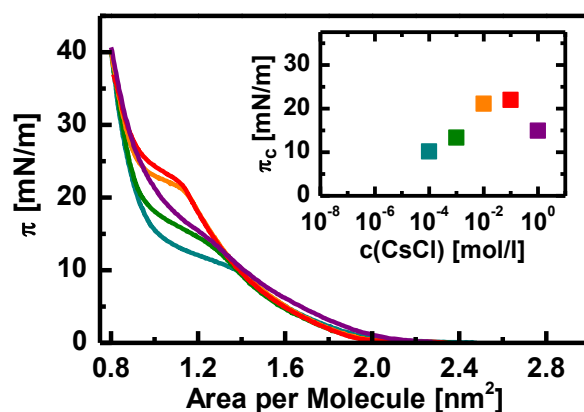
## Interactions of mono- and divalent cations with cardiolipin monolayers

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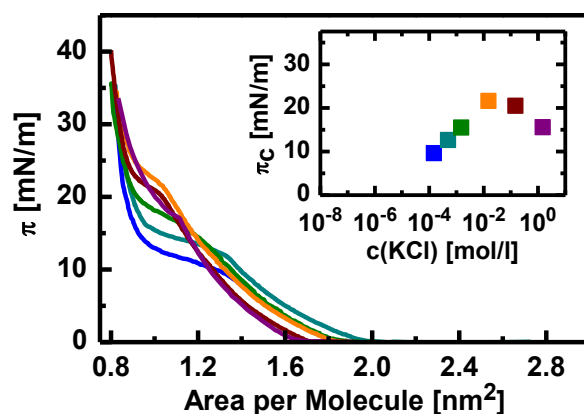
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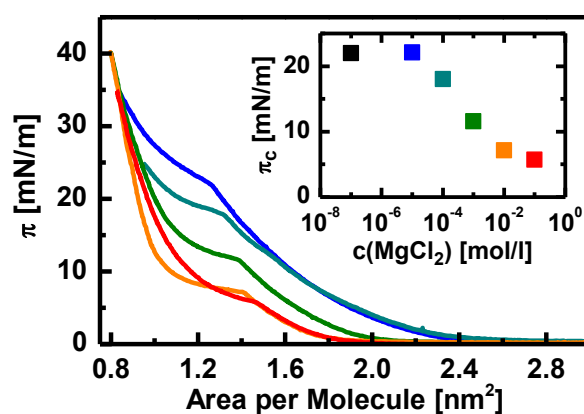
**Figure S1.** TMCL monolayer on subphases containing different NaCl concentrations above 0.1 mol/l (pH = 5.8 and at 25 °C). With increase of the NaCl concentration, the transition surface pressure  $\pi_c$  decreases. In the inset, the dependence of the surface transition pressures  $\pi_c$  on the NaCl concentration is shown. For each NaCl concentration, different monolayers were prepared and isotherms were measured. Up to eight different monolayers were prepared. Thus, the standard deviation of  $\pi_c$  for each NaCl concentration in the subphase was determined.



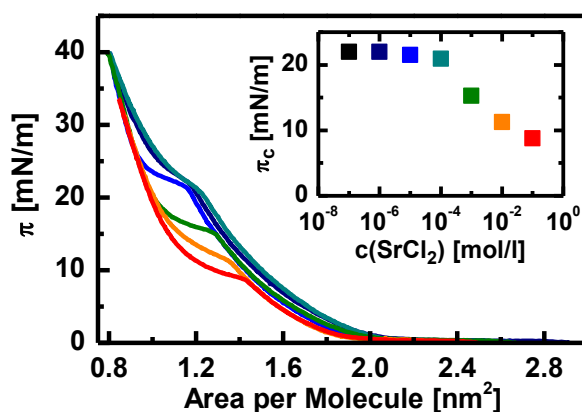
**Figure S2.** TMCL monolayer on subphases containing different CsCl concentrations. All isotherms were measured at pH = 5.8 and at 25 °C. In dependence of the CsCl concentration, the transition surface pressure  $\pi_c$  increases up to about 0.1 mol/l of  $c(\text{CsCl})$ , then it decreases.



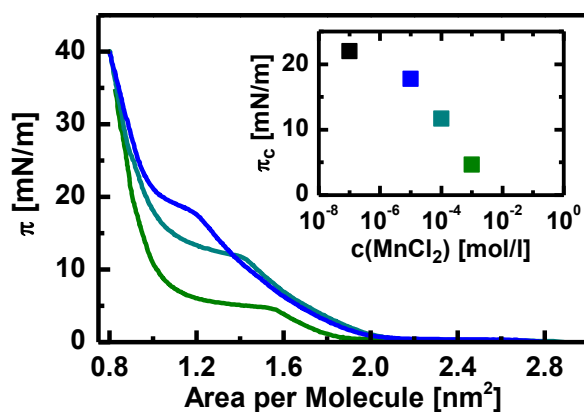
**Figure S3.** TMCL monolayer on subphases containing different KCl concentrations. All isotherms were measured at pH = 5.8 and at 25 °C. The transition surface pressure  $\pi_c$  increases up to about 0.1 mol/l of KCl, then it decreases.



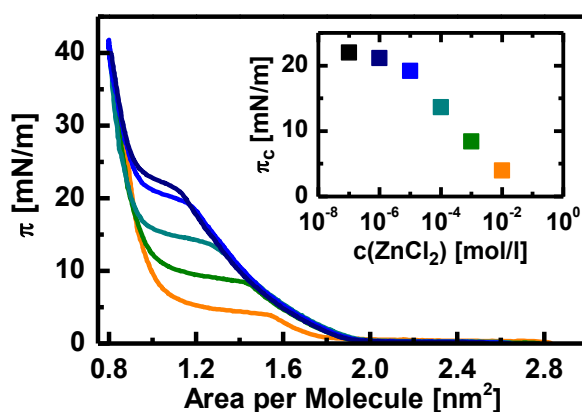
**Figure S4.** TMCL monolayer on subphases containing different MgCl<sub>2</sub> concentrations and 0.15 mol/l NaCl. All isotherms were measured at pH = 5.8, 25 °C. The transition surface pressure  $\pi_c$  decreases with increasing MgCl<sub>2</sub> concentration. The black dot indicates a measurement on a solution containing only 0.15 mol/l NaCl, no MgCl<sub>2</sub>.



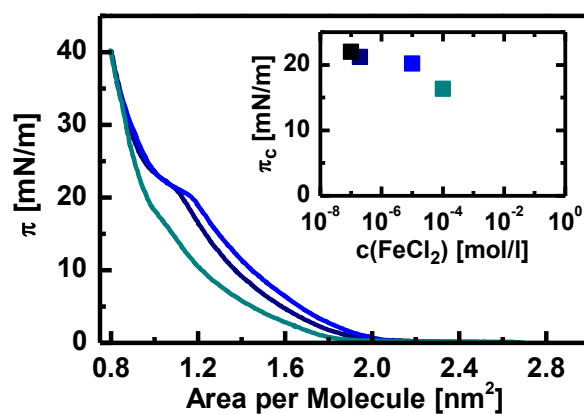
**Figure S5.** TMCL monolayer on subphases containing different  $\text{SrCl}_2$  concentrations and 0.15 mol/l NaCl. All isotherms were measured at pH = 5.8, 25 °C. The transition surface pressure  $\pi_c$  decreases with increasing  $\text{SrCl}_2$  concentration. The black dot indicates a measurement on a solution containing only 0.15 mol/l NaCl, no  $\text{SrCl}_2$ .



**Figure S6.** TMCL monolayer on subphases containing different  $\text{MnCl}_2$  concentrations and 0.15 mol/l NaCl. All isotherms were measured at pH = 5.8, 25 °C. The transition surface pressure  $\pi_c$  decreases with increasing  $\text{MnCl}_2$  concentration. The black dot indicates a measurement on a solution containing only 0.15 mol/l NaCl, no  $\text{MnCl}_2$ .



**Figure S7.** TMCL monolayer on subphases containing different  $\text{ZnCl}_2$  concentrations and 0.15 mol/l NaCl. All isotherms were measured at pH = 5.8, 25 °C. The transition surface pressure  $\pi_c$  decreases with increasing  $\text{ZnCl}_2$  concentration. The black dot indicates a measurement on a solution containing only 0.15 mol/l NaCl, no  $\text{ZnCl}_2$ .



**Figure S8.** TMCL monolayer on subphases of different  $\text{FeCl}_2$  and constant NaCl (0.15 mol/l) concentrations. All isotherms were measured at pH = 5.8, 25 °C and with fixed 0.15 mol/l NaCl. The transition surface pressure  $\pi_c$  decreases with increasing  $\text{FeCl}_2$  concentration. Black indicates a 0.15 mol/l NaCl measurement without any  $\text{FeCl}_2$  added.