

Supplementary Information

for

Scaling of Lipid Membrane Rigidity with Domain Area Fraction

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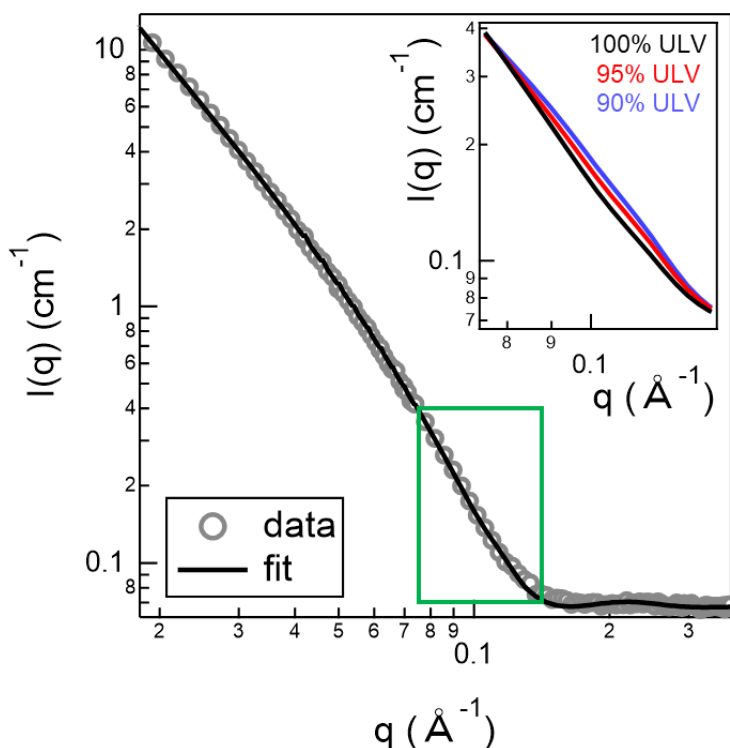


Fig. S1 Representative small angle neutron scattering (SANS) data (points) and fit to a unilamellar vesicle (ULV) form factor (line) for mixed DMPC/DSPC membranes containing a DSPC mole fraction (x_{DSPC}) of 0.7 at $T = 60 \text{ }^\circ\text{C}$. The inset shows the calculated form factor for mixtures of ULVs and multilamellar vesicles (MLV) for the indicated population of ULVs. The presence of MLVs in the sample is seen as a shoulder in the data around $q \approx 0.1 \text{ \AA}^{-1}$. All samples were determined to have $\geq 95\%$ ULV.

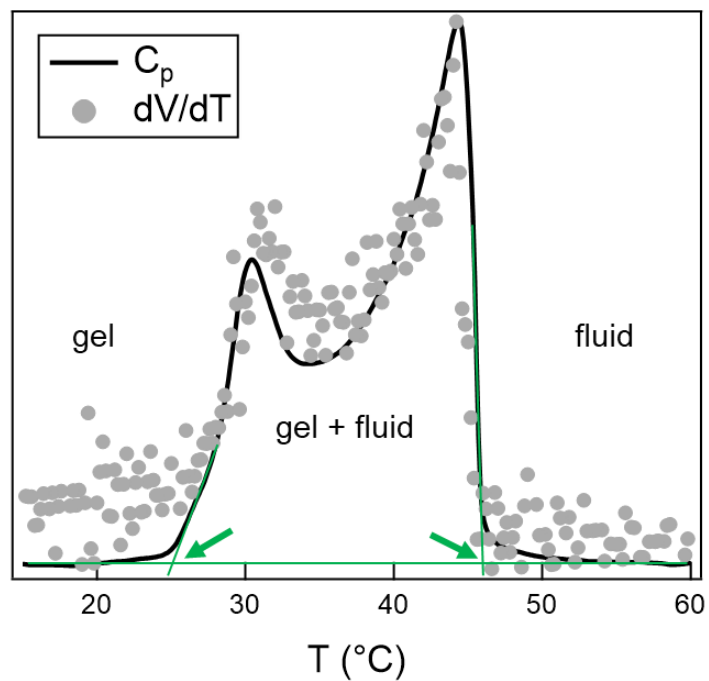


Fig. S2 Representative differential scanning calorimetry (DSC, solid black line) and densitometry (points) data for $x_{\text{DSPC}} = 0.5$. The y-axes were arbitrarily scaled to overlay the data sets. The transition temperatures were determined using the tangent method demonstrated by the green lines on the DSC data and discussed in reference 28 in the main text.