

## Supplementary Information

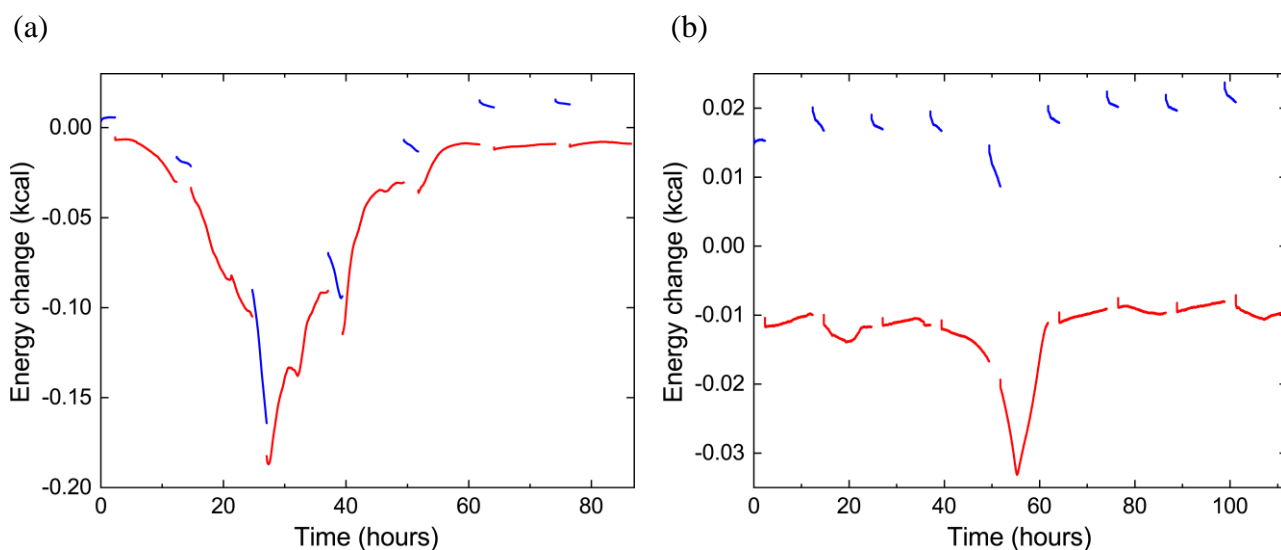
### Delayed nucleation in lipid particles

Guy Jacoby,<sup>a</sup> Irina Portnaya,<sup>b</sup> Dganit Danino,<sup>b</sup> Haim Diamant<sup>c</sup> and Roy Beck<sup>\*a</sup>

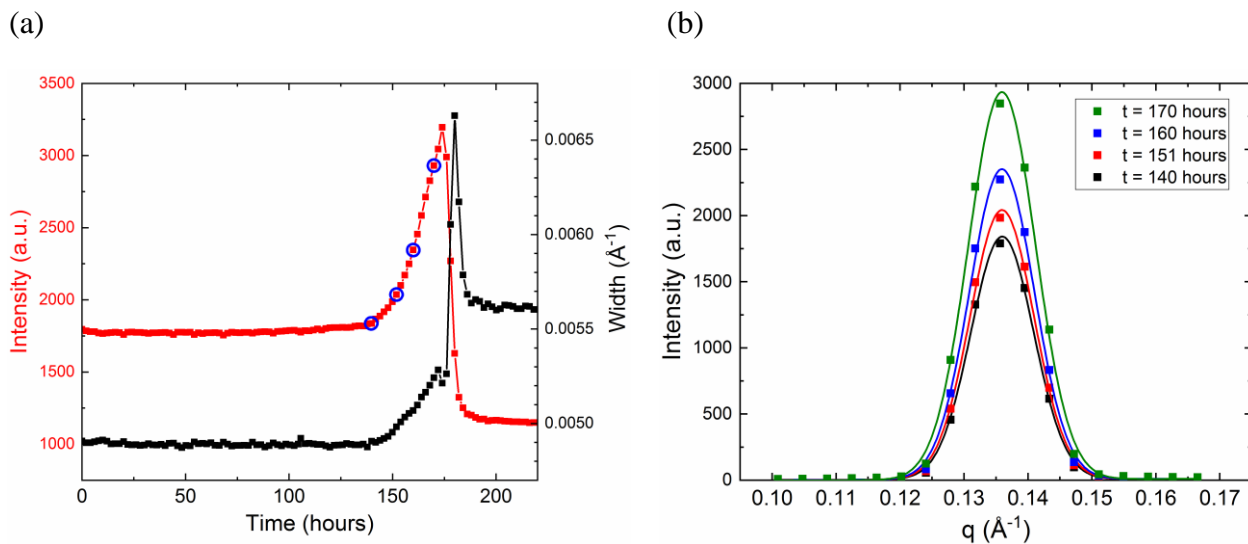
<sup>a</sup> The Raymond and Beverly Sackler School of Physics and Astronomy, Tel Aviv University, Ramat Aviv, Tel Aviv 6997801, Israel. E-mail: [roy@tauex.tau.ac.il](mailto:roy@tauex.tau.ac.il)

<sup>b</sup> Department of Chemical Engineering, Technion-Israel Institute of Technology, Haifa 3200003, Israel.

<sup>c</sup> The Raymond and Beverly School of Chemistry, Tel Aviv University, Tel Aviv 6997801, Israel.



**Figure S1.** Raw data of time-resolved quasi-isothermal DSC measurements of two samples: (a) pure DLPE, (b) 90:10 DLPE:DLPG (mole %). The red curves are heating scans and the blue curves are cooling scans. There is a mismatch between cooling and heating scan data possibly due to the different scanning rates (see experimental section).



**Figure S2.** (a) The amplitude and width of the Gaussian fit to the (001) lamellar scattering peak as a function time. Data shown is from the bottom of the horizontally held capillary (coordinate  $x = 0$ ). At  $t = 140$  hours begins a significant increase of the amplitude, which ends with a sharp drop of the intensity during the phase-transition. Notably, the width of the gaussian also slightly increases before the transition. Blue circles mark the times at which the scattering peak and its fit are plotted in (b) for clarity.