Supplemental Information:

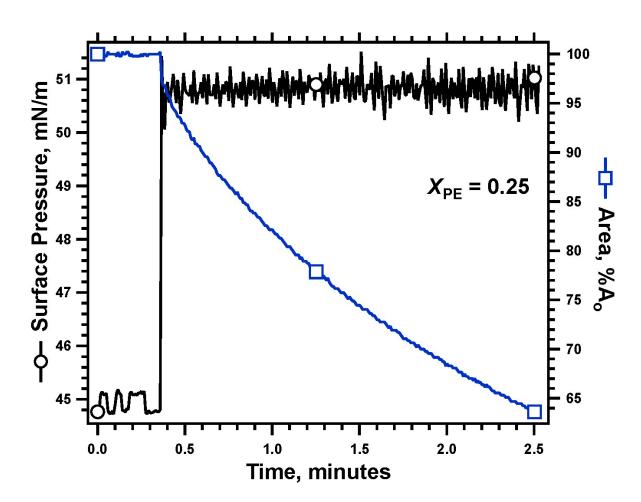


Fig 1SI. The following graph gives the temporal variation of surface pressure (left axis) and surface area (right axis) for a representative experiment, demonstrating the initial pulsed compression and subsequent isobaric compression of a monomolecular film of DOPC:DOPE with $X_{PE} = 0.25$.