Supplementary Information

Relevance of charges and polymer mechanical stiffness in the mechanism and kinetics of formation of liponanoparticles probed by the supported bilayer model approach.

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S1. Compressibility moduli and surface potential of a PDLLA monolayer spread at the air-water interface

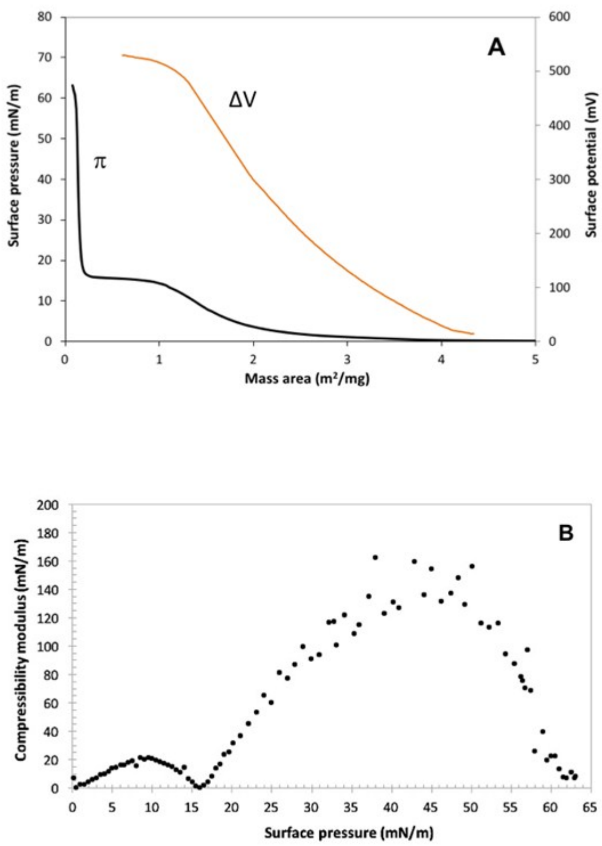

Figure S1: (A) Surface pressure and surface potential-area isotherms; (B) Compressibility moduli deduced from the PDLLA π-A isotherm in (A).

S2. Glass surface functionalization with hydrophobic silane HMDS

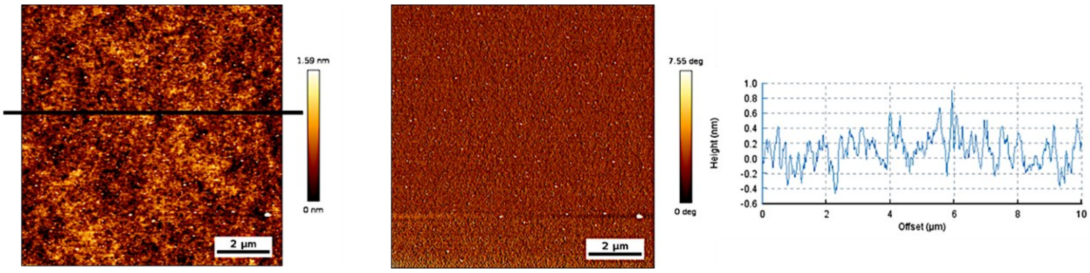

Figure S2: AFM height (left) and phase (right) pictures in water of the glass surface functionalized with HMDS. Height cross section performed along the black line is shown on the right side.

S3. Langmuir-Schaefer transfer of a PDLLA monolayer onto the HDMS-functionalized glass surface at 18 and 35 mN/m

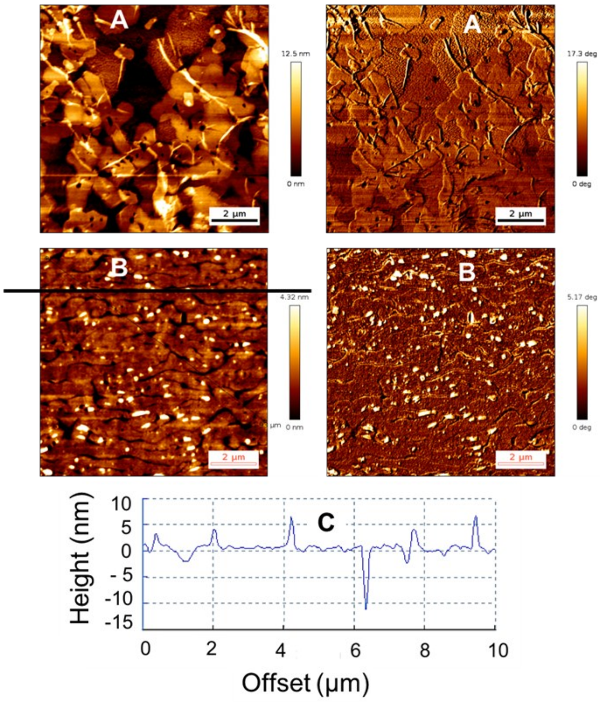

Figure S3: AFM height (left) and phase (right) pictures in water of the glass surface functionalized with HMDS after LS transfer of PDLLA monolayers at 18 (A) and 35 mN/m (B). Height cross section performed along black line depicted on height picture at 35 mN/m is shown in (C).

S4. Force-distance measurement on LS-transferred PDLLA film using AFM

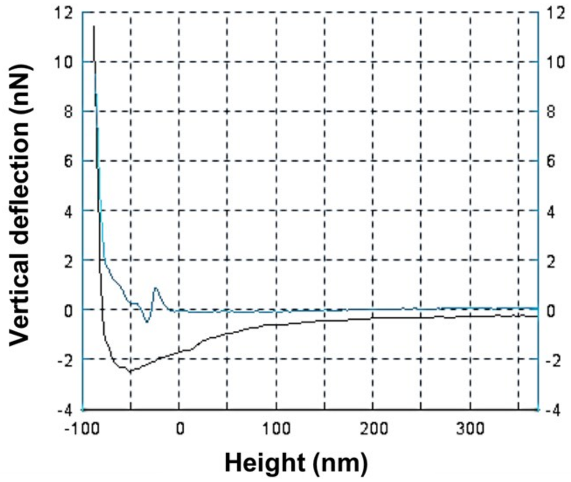

Figure S4: Force-distance measurement performed in water on the PDLLA film transferred at 25 mN/m. Approach and retract curves are displayed as vertical deflection (in nN) of the cantilever versus the AFM head height (in nm).

S5. Measurement the adsorption of POPC-DOTAP 75/25 liposomes onto a SiO_2-coated quartz crystal sensor surface

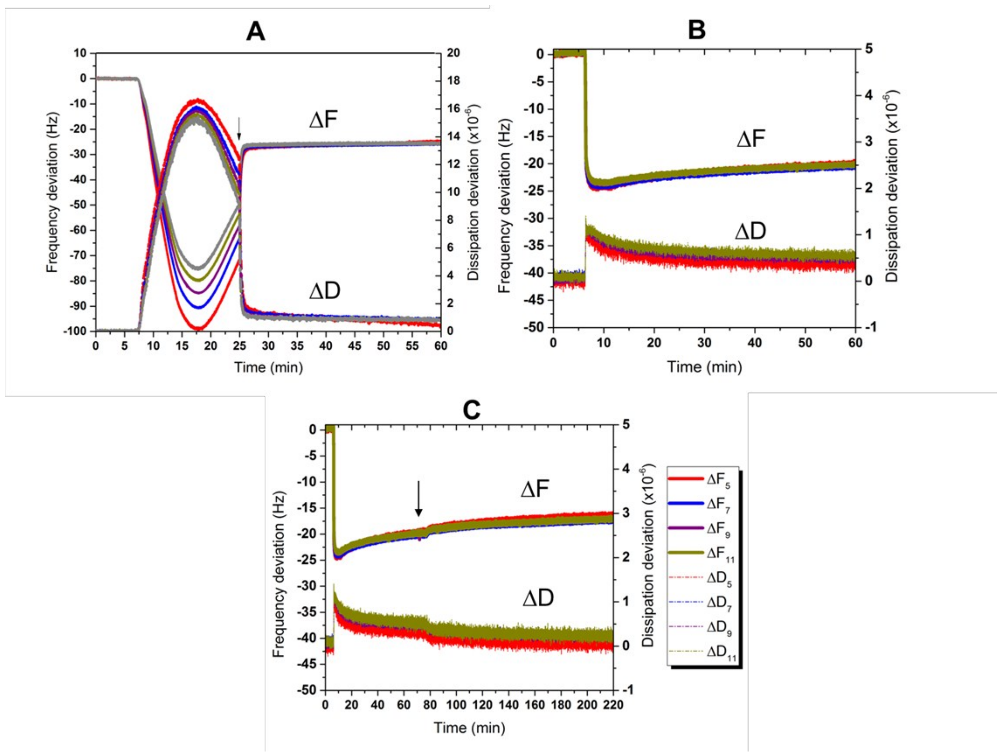

Figure S5: ΔF and ΔD values for (A) POPC (0.4 mM), (B) and (C) POPC-DOTAP (75:25) liposomes (4 mM) on the SiO_2-coated quartz crystal QCM-D sensor. Whereas (B) is an enlargement of the plot for the first hour, (C) shows the whole QCM-D experiment. Arrows indicate the rinsing step.