Supporting Information

Location of the positive charges in cationic amphiphiles modulates their mechanism of action against model membranes

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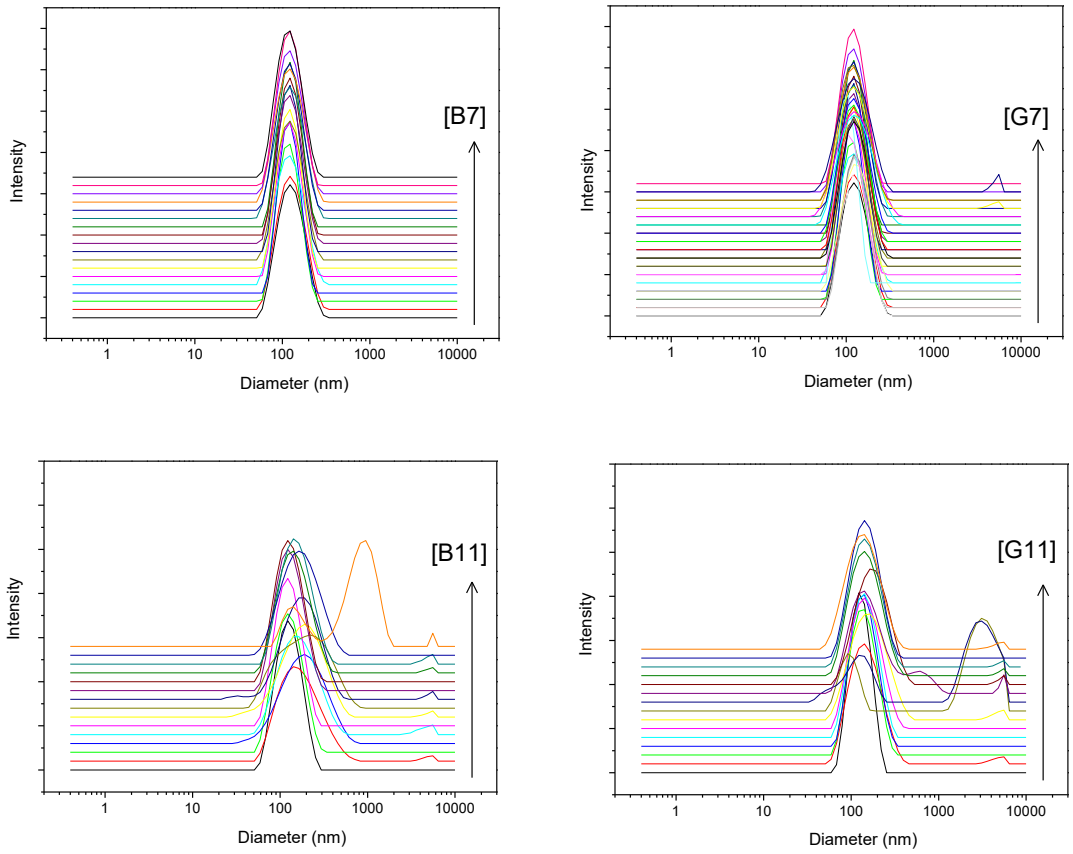

Figure S1 – Size distribution (intensity) measured along injections of each CAm into 0.1 mM POPC:POPG 7:3 (LUVs). The curves are shifted for clarity and each one corresponds to the Z-average sizes shown in Figure 1. The arrows indicate the direction of increase in CAm concentration. Measurements were performed at 25 °C.

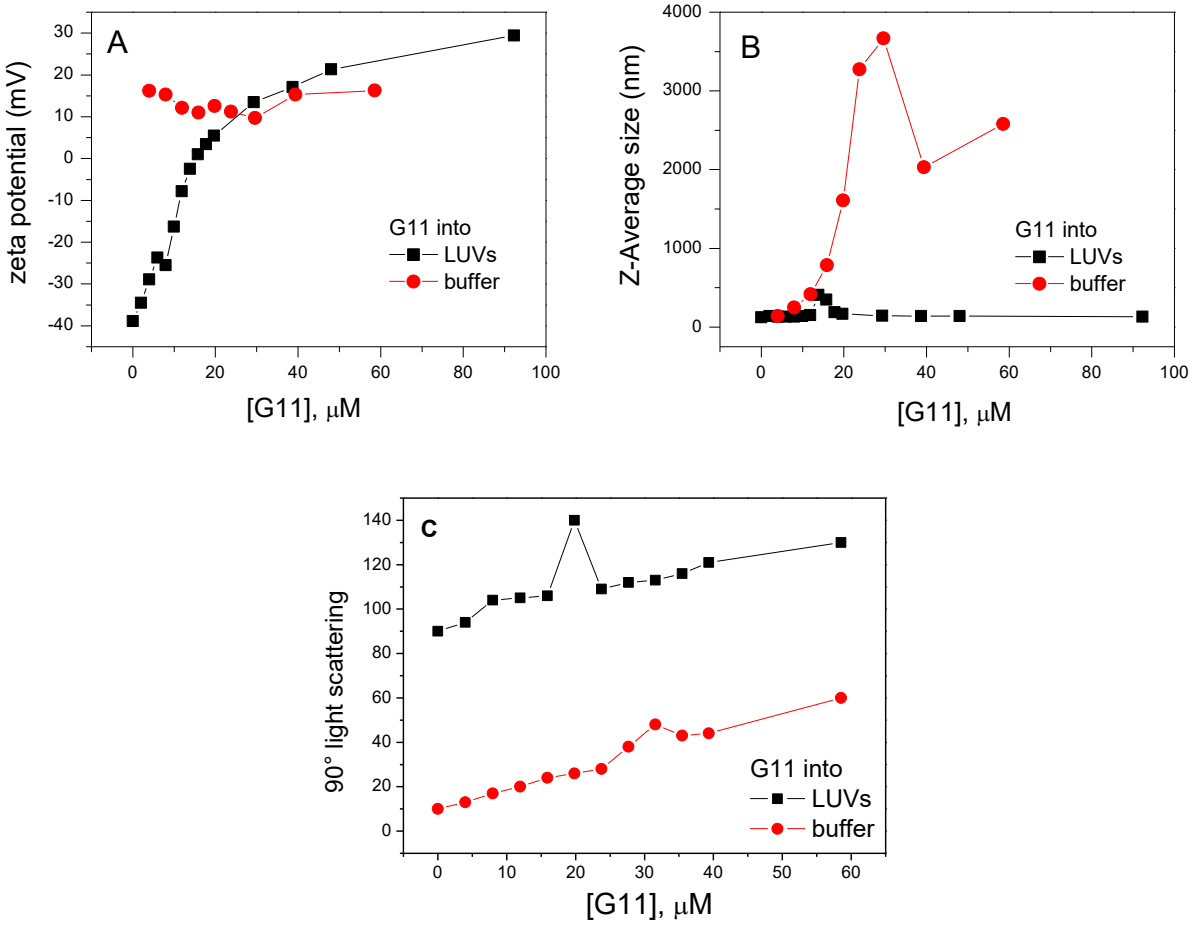

Figure S2 – Zeta potential (A), Z-Average size (B) and 90° light scattering (C) measured along injections of G11 into buffer and 0.1 mM POPC:POPG 7:3 (LUVs). 90° static light scattering was measured in an Agilent Cary Eclipse spectrofluorimeter (Santa Clara, CA) at λ = 500 nm. The sample (buffer or 0.1 mM POPC:POPG 7:3 LUVs) was accommodated in a quartz cuvette and injections of a CAm stock solution (2.4 mM G11) were made and the light scattering intensity recorded for 1 min. Measurements were performed at 25 °C.

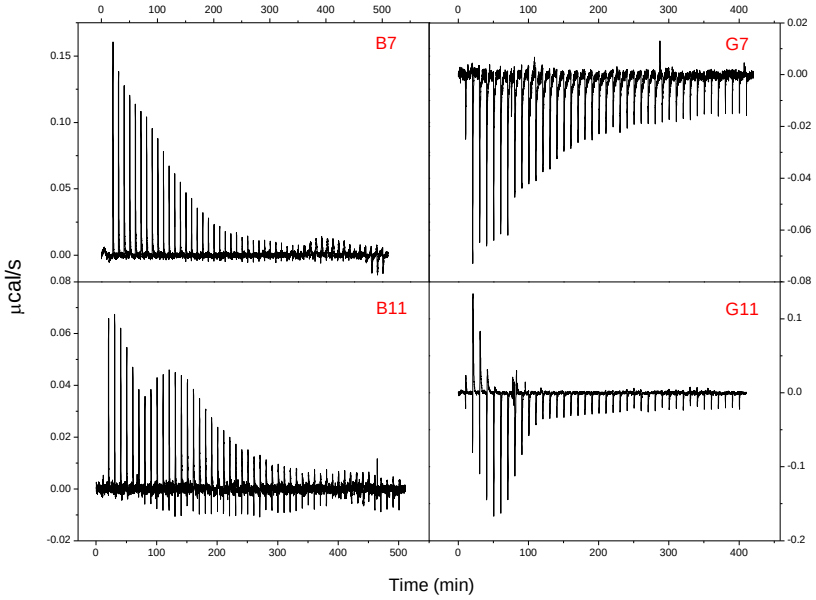

Figure S3 – Heat flows obtained from ITC experiments. The sample cell contains 20 µM CAm and the syringe was loaded with POPC:POPG 7:3 LUVs (5 mM lipid concentration). Consecutive 5 µL injection were done every 10 min. The temperature was 25 °C.

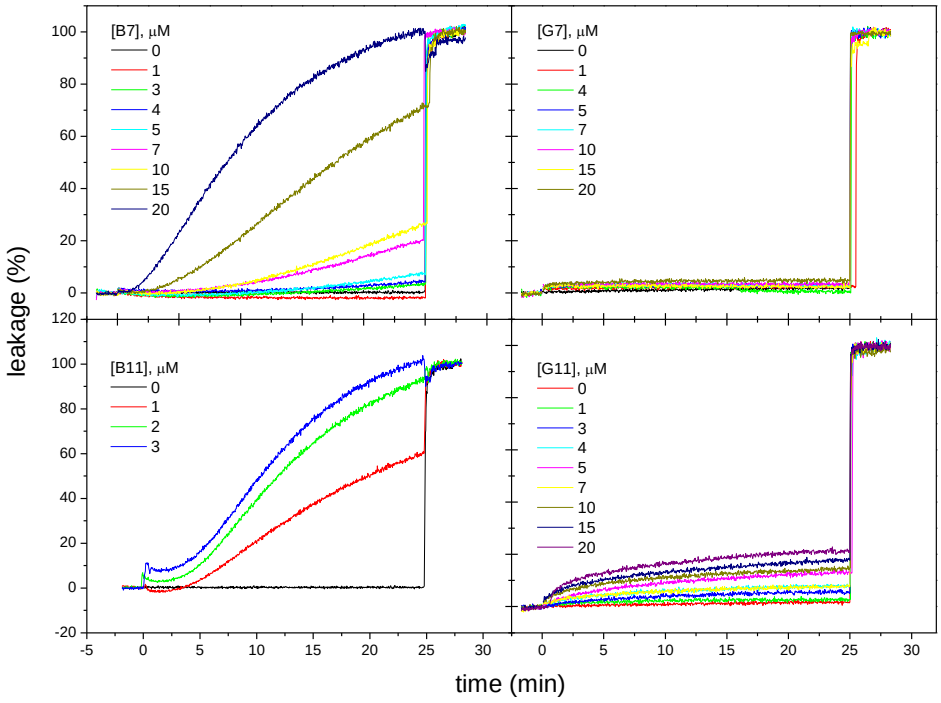

Figure S4 – Kinetics of CF fluorescence intensity curves (normalized as explained in the materials and methods section) obtained from POPC:POPG 7:3 (22 µM lipid concentration) encapsulating 50 mM CF. The CAms (concentrations indicated in the figure legend) were injected at 0 min and Triton X-100 was added 25 min after to induce full leakage.

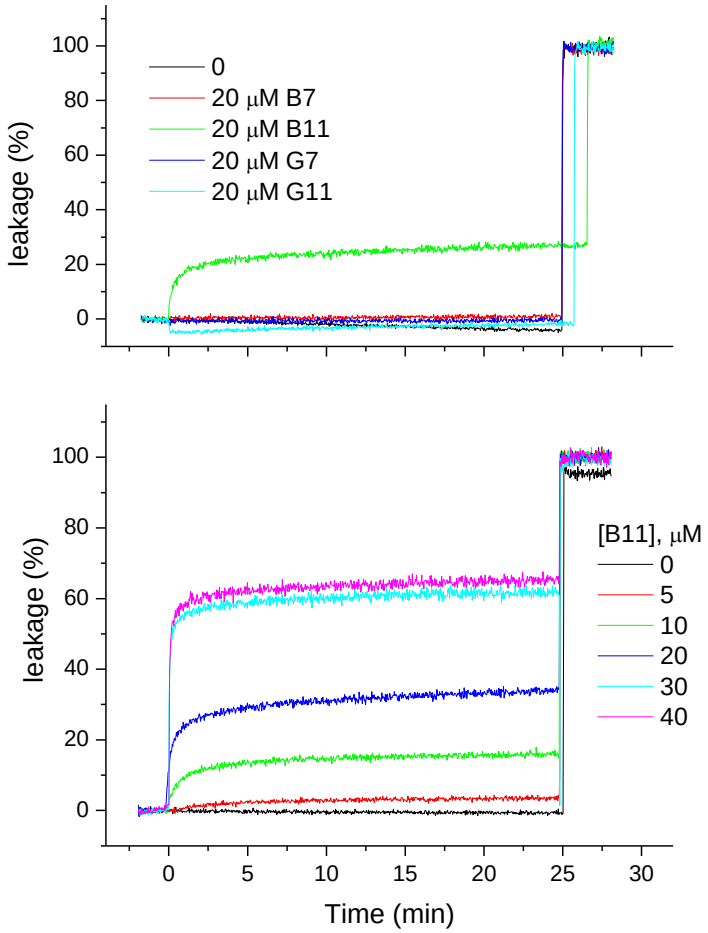

Figure S5 – Kinetics of CF fluorescence intensity curves (normalized as explained in the materials and methods section) obtained from POPC (40 μM –top– or 32–bottom– μM lipid concentration) encapsulating 50 mM CF. The CAms (concentrations indicated in the figure legend) were injected at 0 min and Triton X-100 was added 25 min after to induce full leakage.