
Electronic Supplementary Information for:
**Biological Membranes in Extreme Conditions: Simulations
of Anionic Archaeal Tetraether Lipid Membranes**

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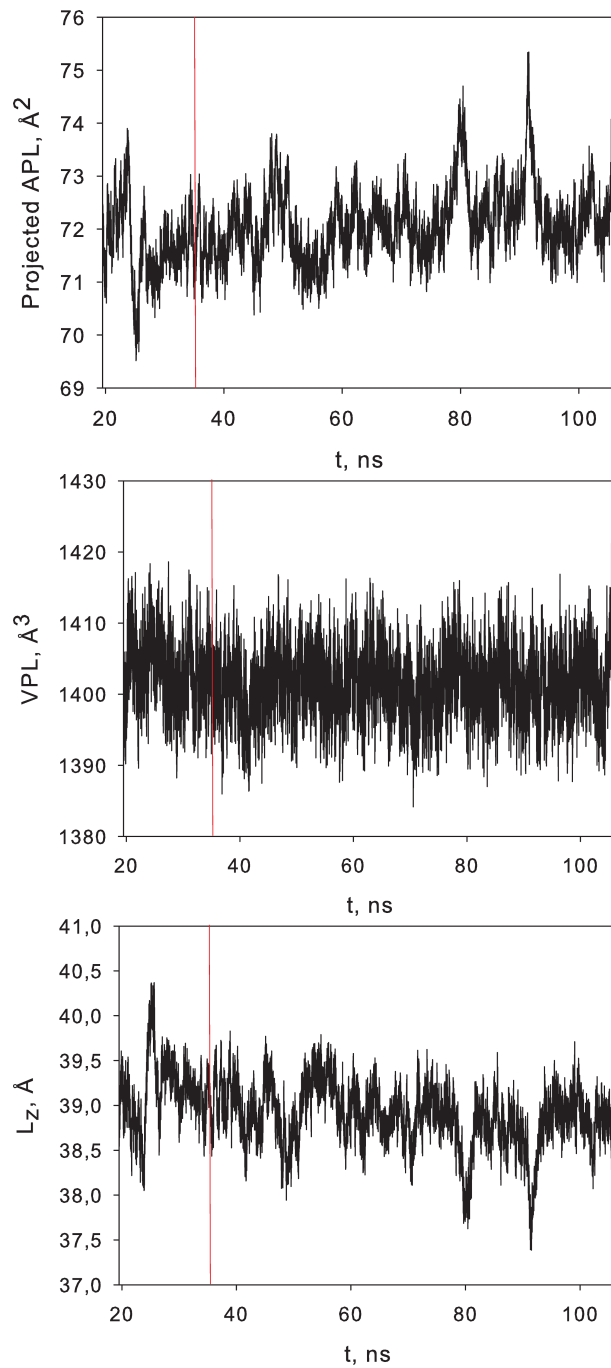


Figure A. Time evolution of projected area per lipid (APL), volume per lipid (VPL), and repeat distance (L_z) for DPhPC bilayer. Data analysis of the simulation starts at the time point marked by a red vertical line.

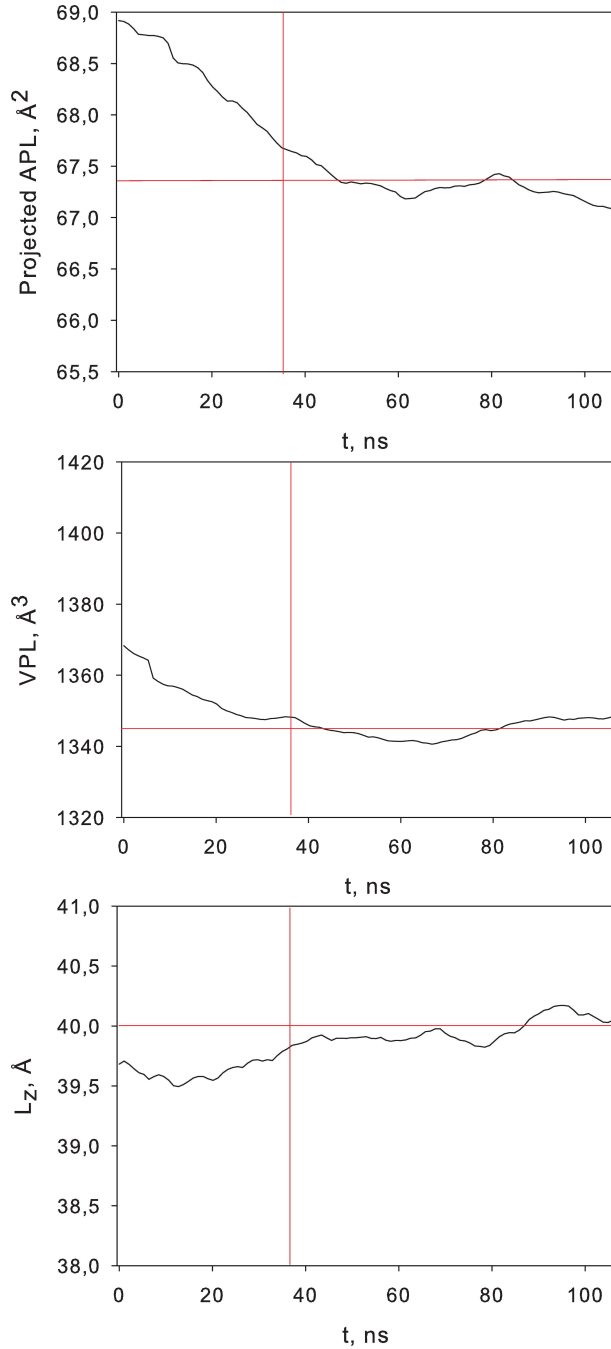


Figure B. Time evolution of projected area per lipid (APL), volume per lipid (VPL), and repeat distance (L_z) for the TEP membrane. The values are running averages. Data analysis of the simulation starts at the time point marked by a red vertical line. The VPL values in the figure are halved to allow a comparison with bilayers. The actual values are given in Table 2.

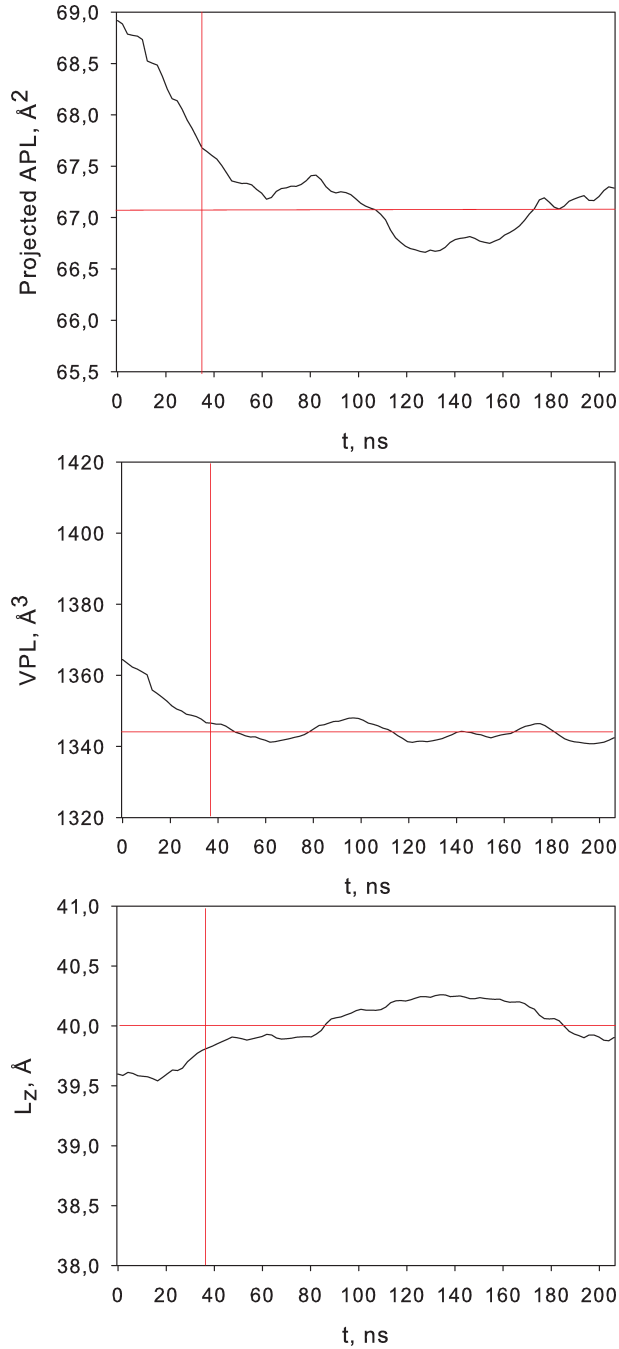


Figure C. Elongation of the simulation of TEP. Time evolution of projected area per lipid (APL), volume per lipid (VPL), and repeat distance (L_z) for the TEP membrane. Data analysis of the simulation starts at the time point marked by a red vertical line. The VPL values in the figure are halved to allow a comparison with bilayers. The actual values are given in Table 2.

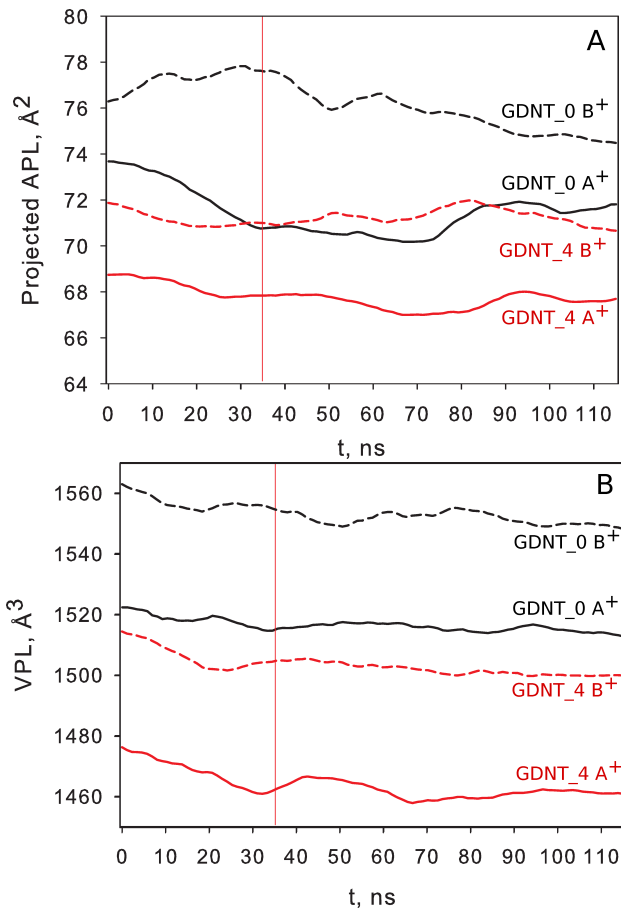


Figure D. Time evolution of (A) projected area per lipid (APL) and (B) volume per lipid (VPL) of the GDNT membranes. The values are running averages. Data analysis of the simulation starts at the time point marked by a red vertical line. The VPL values in the figure are halved to allow a comparison with bilayers. The actual values are given in Table 2.

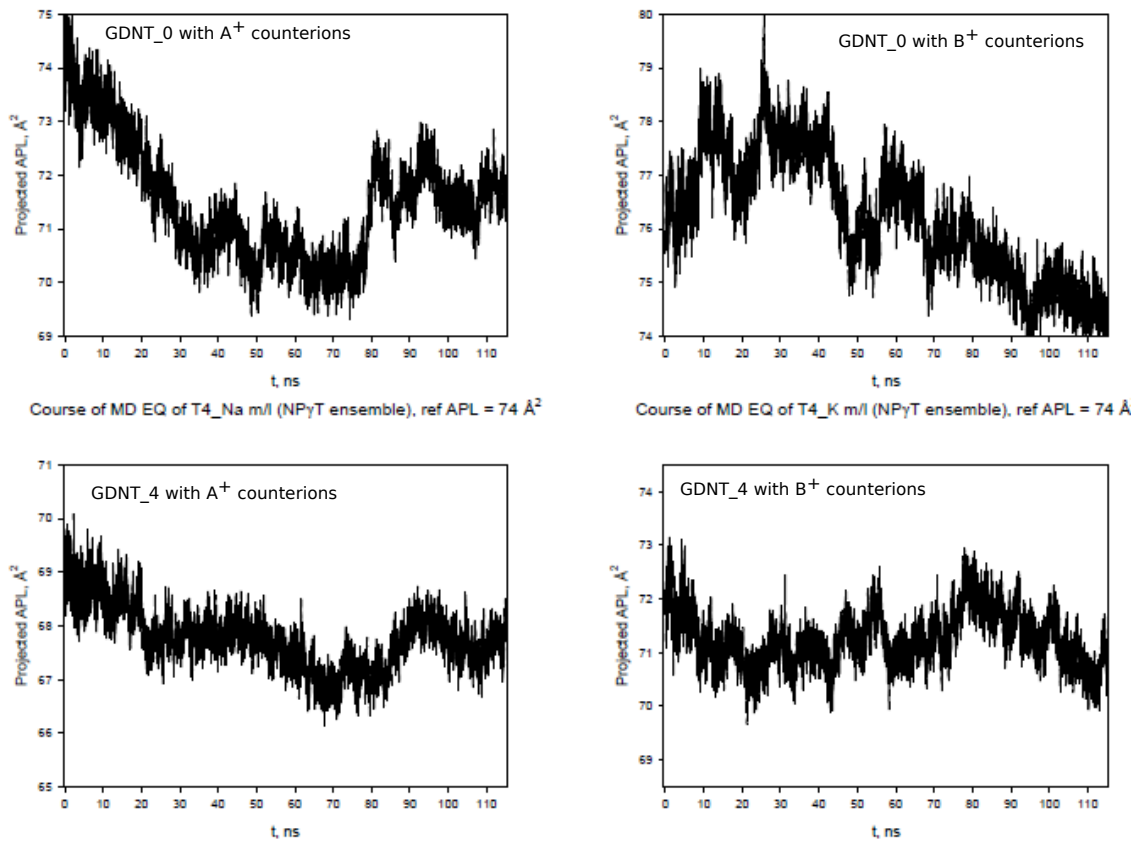


Figure E. Time evolution of the projected area per lipid (APL) of GDNT-0/4 monolayers with two types of counterions: small (A^+) and large (B^+).

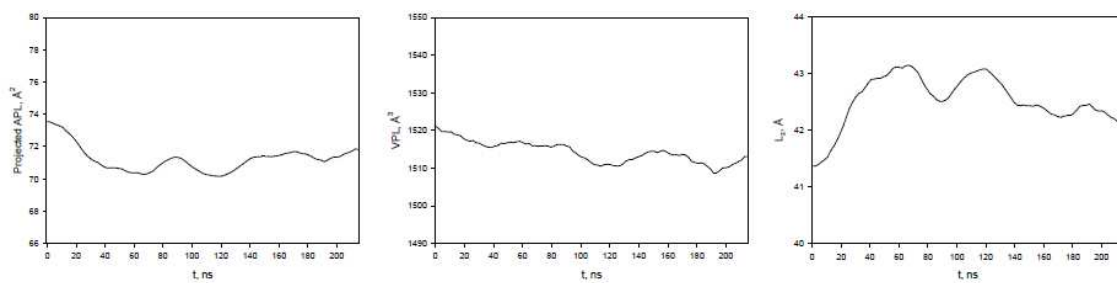


Figure F. Time evolution of the APL, VPL and L_z of GDNT-0 monolayers with small counterions.