

Supporting Material

A ^2H Solid-State NMR Study of Lipid Clustering by Cationic Antimicrobial and Cell-Penetrating Peptides in Model Bacterial Membranes

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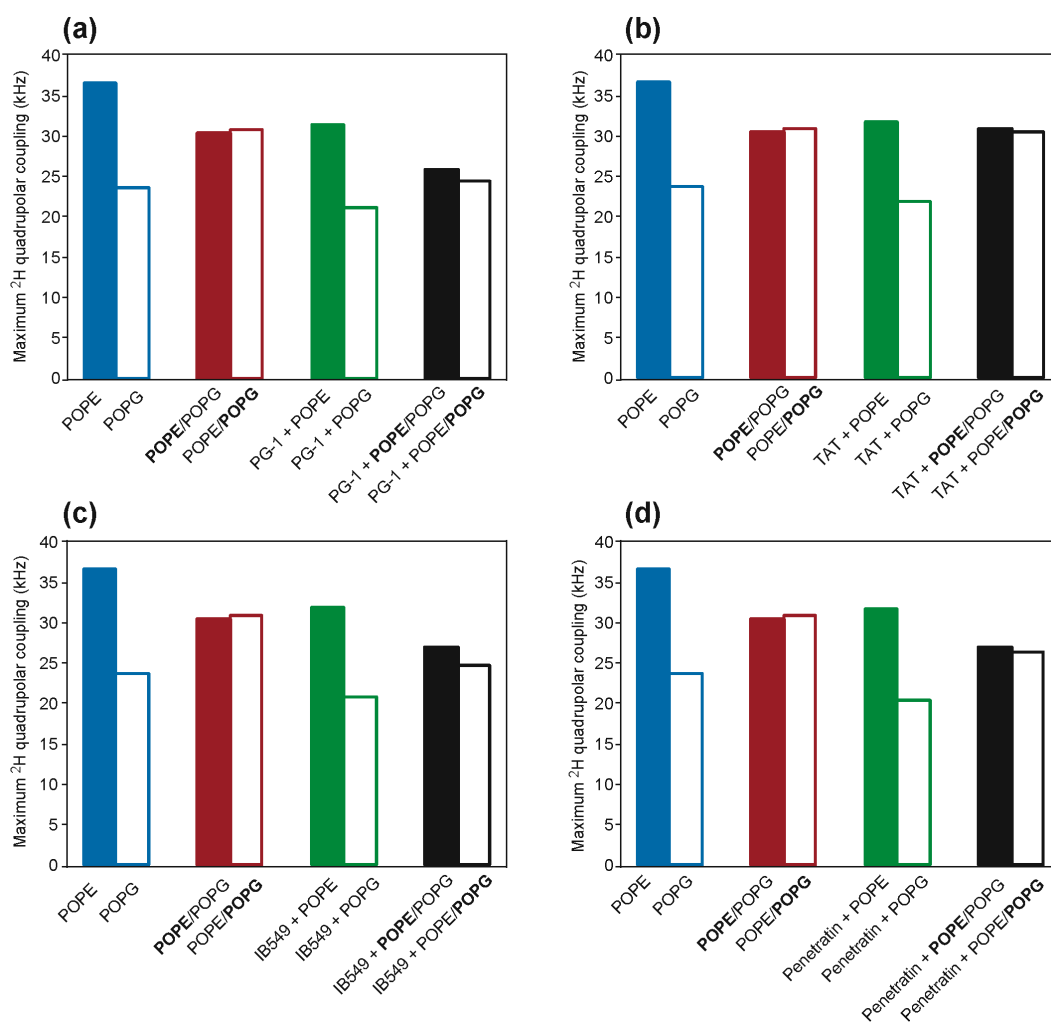


Figure S1. Summary of the maximum ^2H quadrupolar couplings of POPE and POPG in various lipid membranes at 308 K. The peptides are (a) PG-1, (b) TAT, (c) IB549, and (d) Penetratin. Filled and open bars represent the couplings of d_{31} -POPE and d_{31} -POPG, respectively.

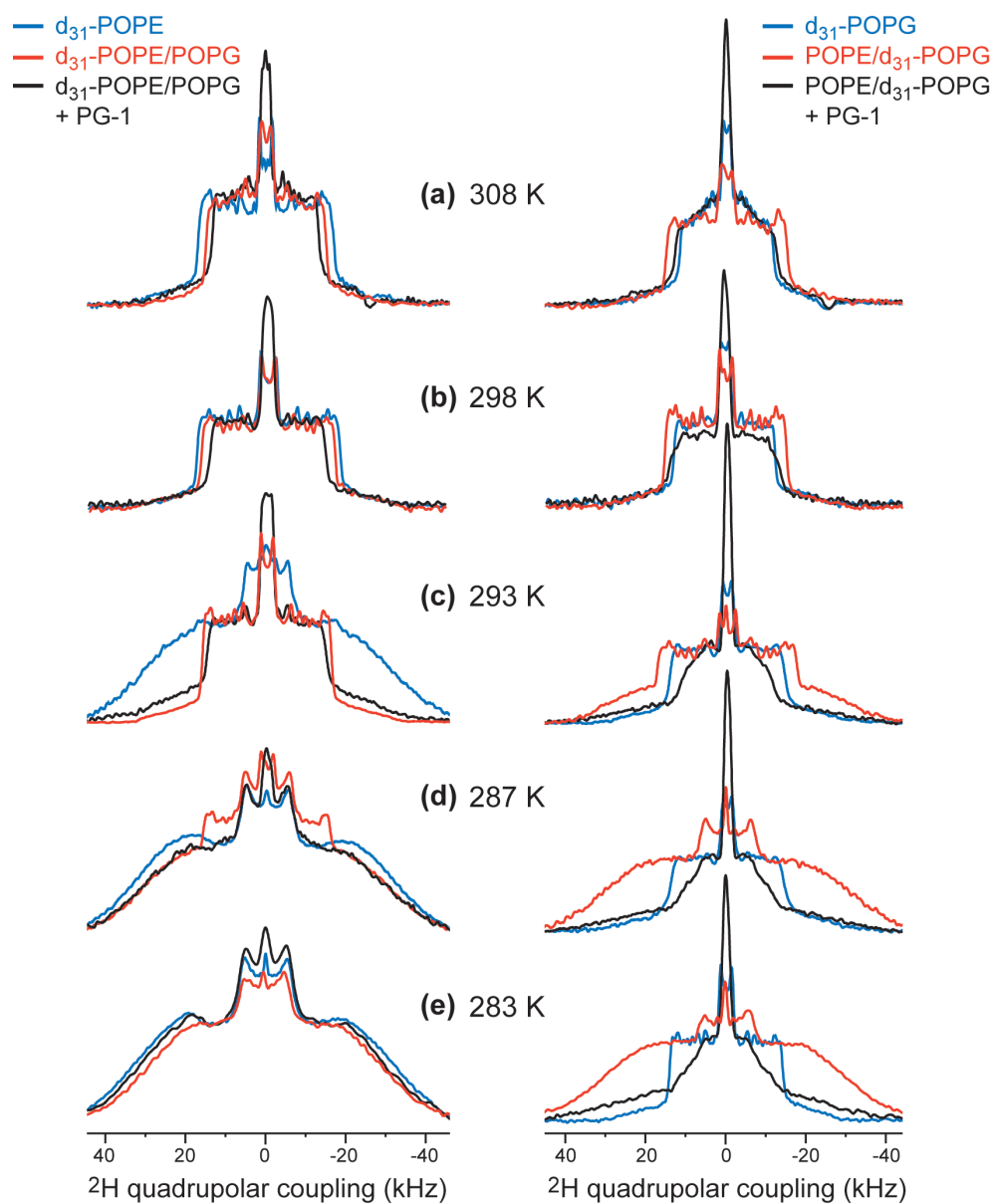


Figure S2. ^2H spectra of d_{31} -POPE (left column) and d_{31} -POPG (right column) in lipid membranes without and with PG-1 from 308 K to 283 K. In each panel, the spectra of pure POPE or POPG membrane, the peptide-free POPE/POPG membrane, and the peptide-bound POPE/POPG membrane are superimposed.

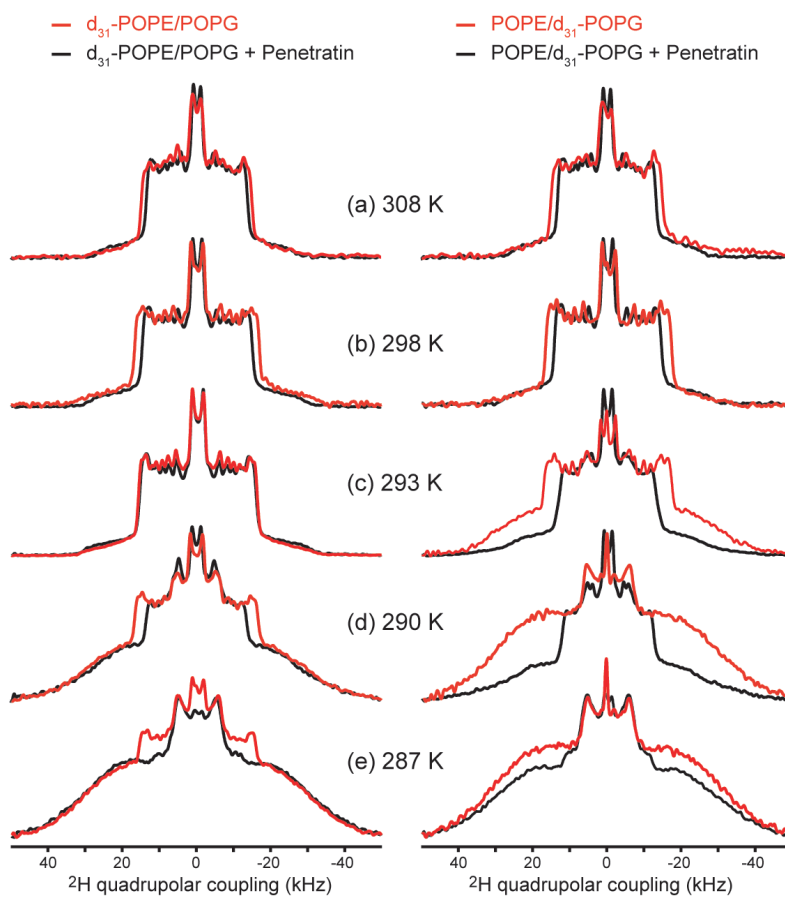


Figure S3. Influence of penetratin on the POPE/POPG membrane disorder, as detected from the ^2H spectra of d_{31} -POPE (left column) and d_{31} -POPG (right column) at (a) 308 K, (b) 298 K, (c) 293 K, (d) 290 K, and (e) 287 K. Penetratin retained or increased the order of POPE while decreasing the order of POPG between 293 K and 287 K.