

RMSD vs TIME

Step	Ensemble <sup>1</sup>	Timesteps	Equilibration Time	Force Constants for Harmonic Restraint <sup>2</sup>				
				Protein Backbone <sup>3</sup>	Protein Sidechain <sup>3</sup>	Water <sup>4</sup>	Lipid <sup>5</sup>	Ion <sup>3</sup>
1	NVT	1 fs	25 ps	10.0	5.0	2.5	2.5	10.0
2	NVT	1 fs	25 ps	5.0	2.5	2.5	2.5	0.0
3	NPAT	1 fs	25 ps	2.5	1.0	1.0	1.0	0.0
4	NPAT	2 fs	100 ps	1.0	0.5	0.5	0.5	0.0
5	NPAT	2 fs	100 ps	0.5	0.1	0.1	0.1	0.0
6	NPAT	2 fs	100 ps	0.1	0.0	0.0	0.0	0.0

<sup>1</sup>NVT stands for constant volume and temperature, and NPAT for constant pressure, area, and temperature.

<sup>2</sup>Force constants are in kcal/(mol·Å<sup>2</sup>).

<sup>3</sup>Positional harmonic restraints.

<sup>4</sup>Harmonic restraints to keep water molecules away from the membrane hydrophobic region.

<sup>5</sup>Harmonic restraints to keep the lipid tail in  $-5 \text{ Å} < Z < 5 \text{ Å}$ , and lipid head groups close to the membrane surface ( $Z = \pm 17 \text{ Å}$  for DMPC and  $Z = \pm 19 \text{ Å}$  for DPPC and POPC).

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