

Supplementary Table 1. Model HIV-1 SLB fit parameters and confidence intervals from NR measurements

Parameter	Fit parameters and Uncertainties
Layer-by-layer thickness (Å)	
SiOx	6.5 ^{+1.1} _{-1.1}
Hydration Layer	4.3 ^{+1.2} _{-1.0}
Inner Headgroup	12.3 ^{+0.9} _{-0.8}
Hydrocarbon Leaflet	14.8 ^{+1.0} _{-0.8}
Outer Headgroup	8.0 ^{+0.8} _{-0.5}
Peptide	Not Resolved
Volume filling, nSLD, and bilayer completeness	
nSLD SiOx	3.58 ^{+0.21} _{-0.17}
Roughness of SiOx (sigma)	1.8 ^{+2.4} _{-0.8}
nSLD headgroup	2.05 ^{+0.26} _{-0.25}
nSLD hydrocarbons	-0.41 ^{+0.07} _{-0.07}
Inner headgroup volume filling	0.73 ^{+0.12} _{-0.21}
Outer headgroup volume filling	0.78 ^{+0.11} _{-0.30}
Peptide volume filling	0.00 ^{+0.05} _{-0.00}
SLB completeness	1.00 ^{+0.00} _{-0.01}