

Table 1: POPC and PoxnoPC composition at each oxidation level. The last column shows the percentage of oxidized lipids relative to all PO-type glycerophospholipids (POPC + POPE + POPI + POPS = 85%).

Oxidation level (%)	POPC (%)	PoxnoPC (%)	Oxidized PO lipids (%)
0	47.0	0.0	0.0
25	35.2	11.8	13.9
50	23.5	23.5	27.6
75	11.8	35.2	41.4
100	0.0	47.0	55.3

Table 2: Percentage distribution of POPC, PoxnoPC, and CHL molecules participating in proto-clusters, small clusters, and raft-like clusters at different POPC oxidation levels. Values represent mean  $\pm$  standard deviation from three replicas.

Oxidation level	POPC + PoxnoPC		
	Proto cluster	Small cluster	Raft-like cluster
0%	$23.25 \pm 0.67$	$8.41 \pm 0.71$	$0.12 \pm 0.05$
25%	$22.51 \pm 0.55$	$8.37 \pm 0.75$	$0.06 \pm 0.03$
50%	$20.93 \pm 0.66$	$8.96 \pm 0.79$	$0.41 \pm 0.10$
75%	$17.86 \pm 0.76$	$5.04 \pm 0.38$	$0.02 \pm 0.02$
100%	$19.29 \pm 0.69$	$6.28 \pm 0.32$	$0.06 \pm 0.03$

Table 3: Percentage distribution of POPC, PoxnoPC, and CHL molecules participating in proto-clusters, small clusters, and raft-like clusters at different POPC oxidation levels. Values represent mean  $\pm$  standard deviation from three replicas.

Oxidation level	POPC + PoxnoPC + CHL		
	Proto cluster	Small cluster	Raft-like cluster
0%	$14.17 \pm 0.51$	$27.98 \pm 0.82$	$39.73 \pm 0.73$
25%	$15.09 \pm 1.54$	$27.95 \pm 1.25$	$37.78 \pm 1.27$
50%	$15.14 \pm 1.55$	$25.33 \pm 0.95$	$35.37 \pm 1.42$
75%	$17.94 \pm 0.91$	$30.73 \pm 1.36$	$24.18 \pm 1.11$
100%	$15.88 \pm 0.66$	$31.11 \pm 0.97$	$25.89 \pm 0.67$