Abstract Submitted
for the MAR15 Meeting of
The American Physical Society

Phase Behavior in Free and Supported Lipid Bilayers ROLAND FALLER, HOLDEN RANZ, Chem Eng & Mat Sci, Univ of California - Davis — Lipid bilayer structures supported on solid substrates are highly important experimental analogs for understanding cell membranes. In this study we use MARTINI coarse-grained force field to systematically investigate differences in phase behavior on supported and free membranes expanding our preliminary work [1]. Our results show that the same phases are found in both cases but that the phase boundaries are different both in temperature and concentration. We also find differences in the structure of the membranes. We particularly study the effect of cholesterol in supported bilayers for the first time.

[1] C. Xing, R. Faller J Phys Chem B 2008.

Roland Faller
Univ of California - Davis

Date submitted: 24 Oct 2014 Electronic form version 1.4