Supporting Information to

Sodium – Carboxylate Contact Ion Pair Formation Induces Stabilization of Palmitic Acid Monolayers at High pH

Ellen M. Adams, a Bethany A. Wellen, a Sandeep K. Reddy, b Raphael Thiraux, b Andrew S. Vidalis, a Francesco Paesani, b and Heather C. Allen* a

a Department of Chemistry & Biochemistry, The Ohio State University, Columbus, Ohio 43210, United States.
b Department of Chemistry and Biochemistry, University of California, San Diego, La Jolla, California 92093, United States.

Figure S1. Surface pressure of a 0.4 mM sodium palmitate pH 10.7 solution as a function of time after ~1 mg of palmitic acid crystals were sprinkled on the surface. The equilibrium surface pressure was determined to be ~47 mN/m. Every other data point is shown for convenience.
**Figure S2.** Surface tension vs. concentration of sodium palmitate in a pH 10.7 solution. The critical micelle concentration of sodium palmitate is 0.4 mM.

**Figure S3.** Percentage of contact ion pairs formed between PA\(^-\) and Na\(^+\) in a mixed PA/PA\(^-\) (50/50) monolayer.