Second Harmonic Generation Spectroscopy to Investigate Kinetics of Detergent Molecules Transferring between Emulsion Particles Elsa C. Y. Yan, Department of chemistry, Yale University. New Haven, CT 06520

Surfactant probe molecules

(A.U.)







## (a) MG MG-octyl-1 MG-butyl-1 1.00 (A.U.) (A.U.) $\tau = \frac{1}{4k} = 3357 \pm 56s$ $\tau = \frac{1}{4k} = 5.5 \pm 0.5s$ $-=0.94\pm0.25s$ 0.75 0.7 0 75 SHG \_\_\_\_ Normalized I<sub>sHG</sub> Normalized Normalized 0.50 0.50 0.50 0.25 0.25 0.25 0.00 0.0 0 00 2000 4000 6000 8000 1000 -40 -20 20 10 60 80 -10 100 -5 Time (sec) Time (sec) Time (sec)

Method: Second Harmonic