MOLECULAR CONFORMATIONS AND ORIENTATIONS OF FATTY ACID AND PHOSPHOLIPID MONOLAYERS AT THE AIR/WATER INTERFACE-A VIBRATIONAL SUM FREQUENCY SPECTROSCOPIC STUDY

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Vibrational sum frequency spectroscopy is a surface-specific technique that provides conformational and orientational information of molecules at interfaces. Orientational information of the phase transitions of fatty acid monolayers at the air/water interface is obtained by coupling a Langmuir trough with a broadband sum frequency spectrometer. A comparison of the molecular conformations and orientations of pure and mixed fatty acid monolayers with monolayers of the corresponding phospholipids will be presented.