

Abstract Submitted  
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**Boundary of Phase Co-existence in Docosahexaenoic Acid System**

CHAI LOR, LINDA S. HIRST, University of California, Merced — Docosahexaenoic acid (DHA) is a highly polyunsaturated fatty acid (PUFA) that exhibits six double bonds in the hydrocarbon tail. It induces phase separation of the membrane into liquid order and liquid disorder in mixtures containing other lipids with more saturation and cholesterol. With the utilization of atomic force microscopy, phase co-existence is observed in lipid mixtures containing DHA on a single supported lipid bilayer. The boundary of phase co-existence with decreasing DHA concentration is explored. The elastic force, thickness, and roughness of the different phases are investigated.

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