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March 31, 2006

232nd ACS National Meeting  
San Francisco, CA, United States  
September 10, 2006 through September 14, 2006

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## **Membrane composition analysis by imaging mass spectrometry**

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Membranes on solid supports offer an ideal format for imaging. Secondary ion mass spectrometry (SIMS) can be used to obtain composition information on membrane-associated components. Using the NanoSIMS50, images of composition variations in membrane domains can be obtained with a lateral resolution better than 100 nm. By suitable calibration, these variations in composition can be translated into a quantitative analysis of the membrane composition. Progress towards imaging small phase-separated lipid domains, membrane-associated proteins and natural biological membranes will be described.

Portions of this work were performed under the auspices of the U.S. Department of Energy by the University of California, Lawrence Livermore National Laboratory under Contract W-7405-Eng-48.