## Abstract Submitted for the TSF14 Meeting of The American Physical Society

Raman Spectroscopy and Imaging of Red Blood Cells ANSAM TALIB, SANDRA BUSTAMANTE, ZACHARY LIEGE, SARAH RITTER, ALEXZANDER SINYUKOV, DMITRI VORONINE, ALEXEI SOKOLOV, KENITH MEISSNER, MARLAN SCULLY, None — Raman spectroscopy is a powerful spectroscopic technique that can be used for vibrational imaging of biological systems. We demonstrate Raman spectra and images of red blood cells (RBC) and "ghost cells" with hemoglobin removed and replaced with other molecules. We investigate the dependence on various experimental parameters such as different laser wavelengths and intensities. Our preliminarily results confirm the detection of hemoglobin in RBC and have a potential for future applications in nanoscale cell surface imaging.

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