Abstract Submitted for the TSF10 Meeting of The American Physical Society

Particle Tracking of Fluorescent Microspheres¹ ZOFIA KAMIN-SKI, Department of Physics, University of Dallas, Irving, TX 75062, JOACHIM MUELLER, SERKAN BERK, Department of Biophysics, University of Minnesota, Minneapolis, MN, 55455 — In this research, the diffusion coefficients of the fluorescent microspheres and the relation of those coefficients to particle radius were investigated. An additional focus was to see how well the measured radius of the microspheres compared to the radius as reported by the manufacturer and to measure the distribution of radii in a sample. This study further developed the critical process of ensuring particle movement within the sample volume and made preliminary sample measurements. The methods developed for tracking microspheres will later be used to determine the radii of virus like particles (VLPs), which are a noninfectious model system of the HIV virus. Results from our measurements will be reported.

¹This research was funded in part by the National Science Foundation through their REU program.

Richard Olenick Department of Physics, University of Dallas, Irving, TX 75062

Date submitted: 24 Sep 2010

Electronic form version 1.4