

Abstract Submitted
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Optical tweezers position measurement - comparing position sensitive detectors and high-speed cameras LAURA SPARKS, JOHN SHARPE¹

— The design and construction of a low-cost optical trapping system is described. Trapping is performed on 1 micron diameter silica beads using 785 nm light from a diode laser. The particle position is measured using visible 633 nm light imaged onto a position sensitive lateral effect photodiode. We simultaneously acquire images of the trapped particle with a high-speed CCD camera and compare the accuracy of the camera to that obtained with the position sensitive detector.

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