

Supporting Information: Sensing Nanoparticles

Using a Double Nanohole Optical Trap

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Scanning Electron Microscope (SEM) Image of Double Nanohole(DNH)

Figure S1 shows the SEM images of double nanohole to trap the 40 nm and 60 nm polystyrene nanospheres. The separation between the cusps are 50 nm for trapping 40 nm nanospheres and 68 nm for trapping the 60 nm nanospheres.

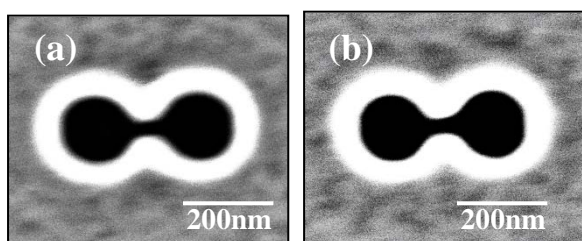


Figure S1. SEM image of DNH on Au film for trapping a) 40 nm , b) 60 nm polystyrene nanospheres.

Subsequent Trapping Events – Laser on and off procedure

Figure S2 shows the measurement of subsequent trapping events. It shows that the laser is turned on until trapping occurs, then is turned off for > 30 seconds to ensure that the particle has diffused away, at which point the laser is turned back on until trapping occurs again.

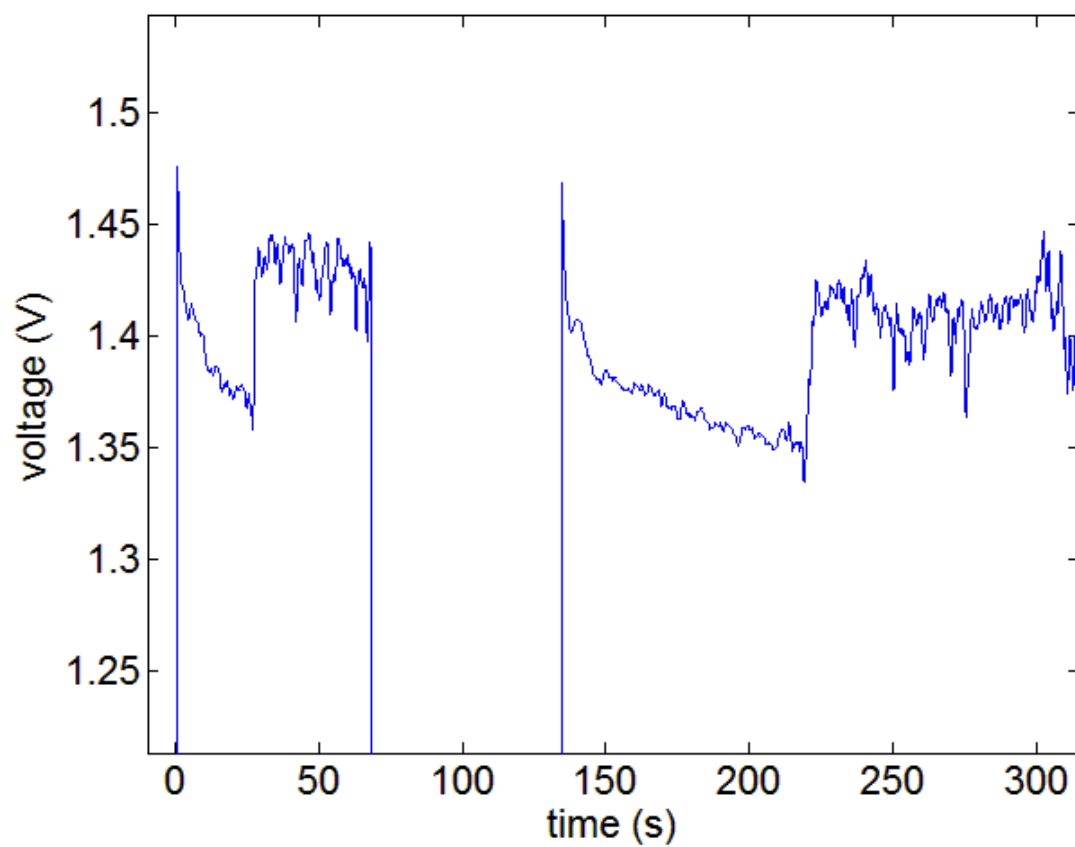


Figure S2. Example of subsequent trapping events after laser being turned off and on.