

Description of Additional Supplementary Files

File name: Supplementary Movie 1

Description: Trapping of 100 nm fluorescent nanodiamonds by an ACT.

File name: Supplementary Movie 2

Description: Demonstration of trap, transport and release of a 200 nm fluorescent polystyrene particle in ionic solution. Video played at 2X of original speed.

File name: Supplementary Movie 3

Description: Demonstration of trapping of 400 nm polystyrene particle in vertical configuration.

File name: Supplementary Movie 4

Description: Demonstration of trapping of 400 nm polystyrene particle in horizontal configuration.

File name: Supplementary Movie 5

Description: Collective manipulation of 400 nm polystyrene particle using multiple ACTs using a defocused optical tweezer. Video played at 0.5X of original speed.

File name: Supplementary Movie 6

Description: Demonstration of trapping of 40 nm fluorescent polystyrene particle in vertical configuration.

File name: Supplementary Movie 7

Description: Demonstration of trapping of 40 nm fluorescent polystyrene particle by an ACT attached to substrate (in horizontal configuration).

File name: Supplementary Movie 8

Description: Demonstration of parallel and independent control in manipulation using 300 nm fluorescent magnetic particle.