

Titles, legends and keywords for the multimedia material included in the ESI

File: “video 1.avi”

Title:

3D animated z-stack of the operational channel geometry – Fig. 1B in motion

Legend:

3D animated z-stack from 44 CLSM images. Silicon surfaces in light blue, NA- (green) and DNA-cargo loading stream (blue) visible. Sharp borders between streams by hydrodynamic separation.

Keywords

nanoshuttles, microfluidic, molecular assembly line, nanomotor, kinesin, microtubule, active transport, neutravidin, biotin, z-stack

File: “video 2.avi”

Title:

Nanoshuttles sequentially assemble cargo in current generation channel geometry – Fig. 2B in motion

Legend:

Time lapse of CLSM images. Channel geometry used in this work (Fig. 2B). Silicon surface appears in light blue. Nanoshuttles (red) pass through NA- (green) and DNA-cargo loading stream (blue) and capture cargo.

Keywords

nanoshuttles, microfluidic, molecular assembly line, nanomotor, kinesin, microtubule, active transport, neutravidin, biotin, DNA, time lapse

File: “video 3.avi”

Title:

Nanoshuttles assemble cargo in earlier generation channel geometry – Fig. S4 in motion

Legend:

Time lapse of CLSM images. Earlier generation channel geometry (Fig. S4). Silicon surface appears in green. Nanoshuttles (red), pass through NA- (green) and DNA-streams (blue) and capture cargo.

Keywords

nanoshuttles, microfluidic, molecular assembly line, nanomotor, kinesin, microtubule, active transport, neutravidin, biotin, time lapse