Supplementary Information

High-Throughput Single-Particle Detections Using a Dual-Height-Channel-Integrated Pore

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Supplementary Information includes:

1. Supplementary Figure S1 and Table S1



Figure S1. a, Particle trap via fluid flow through as-prepared PDMS channels. 6 μ m-sized carboxylated polystyrene beads were captured at the entrance of the shallow channels of 500 nm height. **b**, Upon releasing the particles by fluid back flow, only those accumulated on the already-trapped beads amounting only 15 % of the total number of trapped microparticles were able to move while the rest adhered on the hydrophobic PDMS surface remained unreleased. **Table S1.** The number of particles trapped at side channel entrance after draining 30 μ L of PBS containing 6 μ m-sized polystyrene beads at concentration of 10000 particles/mL. Note that the total number of trapped particles agree within a factor of 2 to a simple estimation from the particle concentration and the solution volume that predicts 300 particles being injected into the main chamber. It therefore means that the capture efficiency is 100 % when ignoring a possibility of having particles being adhered or clogged at non-channel places such as the inlet hole and the Teflon tube.

Side-channel length <i>L</i> s	Number of trapped particles at the three regions			Total number of trapped particles
L _s = 30 μm	164	188	209	561
L _s = 50 μm	153	167	172	492
<i>L</i> _s = 100 μm	225	181	185	591
	Lower	Mid	- Upper	