



**Supplementary Movie 1. Particle sorting with PLACS.** Real-time sorting of mixed 10  $\mu\text{m}$  green fluorescent particles and 3  $\mu\text{m}$  red fluorescent particles. 10  $\mu\text{m}$  green particles were detected and switched into the collection channel on the right while 3  $\mu\text{m}$  red particles continued flowing into the waste channel on the left. Average sorting speed was 3,000 particles/s and sample flow speed was  $\sim 0.8$  m/s. Initial mix ratio of 10  $\mu\text{m}$  green particle to 3  $\mu\text{m}$  red particle