

Supplementary Material (ESI) for Lab on a Chip
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Supporting information

Isotropically Etched Radial Micropore for Cell Concentration, Immobilization, and Picodroplet Generation

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S-1. Sequence of 38 images showing 38 different etched channels in a point-to-point configuration with decreasing mask distance.

S-2. Video of continuous-flow particle concentration ($\Delta P = 13.8$ kPa, $\delta P = 11.0$ kPa).

S-3. Empirical determination of $R_i + R_o$ and R_p .

S-1. Sequence of 38 images showing 38 different etched channels in a point-to-point

configuration with decreasing mask distance. The 38 point-to-point 25- μm -deep etched channels differ by a mask distance decreasing incrementally by 1 micron (67 μm to 30 μm). These images were assembled into a movie sequence showing the presence of a micropore at a 50- μm mask distance.

S-2. Video of continuous-flow particle concentration ($\Delta P = 13.8$ kPa, $\delta P = 11.0$ kPa).

(A) Entrance of concentrator where beads are far apart from each other and have fast velocities. (B) Exit of the concentrator where beads are closer to each other and have lower velocities.

S-3. Empirical determination of $R_i + R_o$ and R_p . (A) Experimental data for the ratios of the inlet and outlet pressure differential ΔP to the total flow rate ΣQ for a wide range of operating conditions; (B) Experimental data for the ratios of the sample and waste pressure differential δP to the transverse flow rate δQ for a wide range of operating conditions.

