

Supporting Information

Acoustophoresis-driven particle focusing and separation with standard/inverse Chladni patterns

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This file includes:

Fig. S1 The photo of fabricated device with a 20 mm×20 mm×60 μm microchamber.

Fig. S2 The SEM image of 5 μm polystyrene spheres.

Fig. S3 The sinking process of 5 μm polystyrene spheres in ethanol for 2 hours.

Fig. S4 The photo of fabricated device with a 10 mm×5 mm×60 μm microchamber.

Fig. S5 The SEM image of 1 μm polystyrene spheres.

Fig. S6 The SEM image of copper powder with average diameter of 1 μm.

Fig. S7 The sinking process of 1 μm copper powder in ethanol for 20 min.

Other Supplementary Materials for this manuscript include the following:

Movie S1. The motion of 5 μm polystyrene spheres and the trajectory of coloured fluids in the 20 mm×20 mm×60 μm microchamber under the applied frequency of 5 kHz and applied voltage of 100 V_{pp}.

Movie S2. The motion of 5 μm polystyrene spheres and 1 μm polystyrene spheres in the 10 mm×5 mm×60 μm microchamber under the applied frequency of 3 kHz and applied voltage of 100 V_{pp}.

Movie S3. The motion of 1 μm copper powder in the 10 mm×5 mm×60 μm microchamber under the applied frequency of 3 kHz and applied voltage of 100 V_{pp}.

Movie S4. The motion of SiO₂ particles in the 10 mm×5 mm×60 μm microchamber

under the applied frequency of 3 kHz and applied voltage of 100 V_{pp}.

Supplementary Figures:

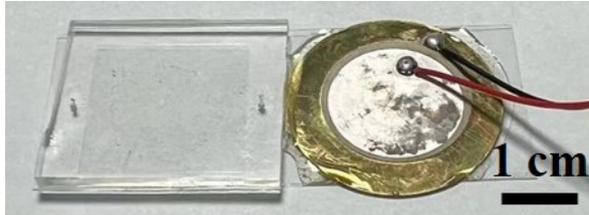


Fig. S1 The photo of fabricated device with a 20 mm×20 mm×60 μm microchamber.

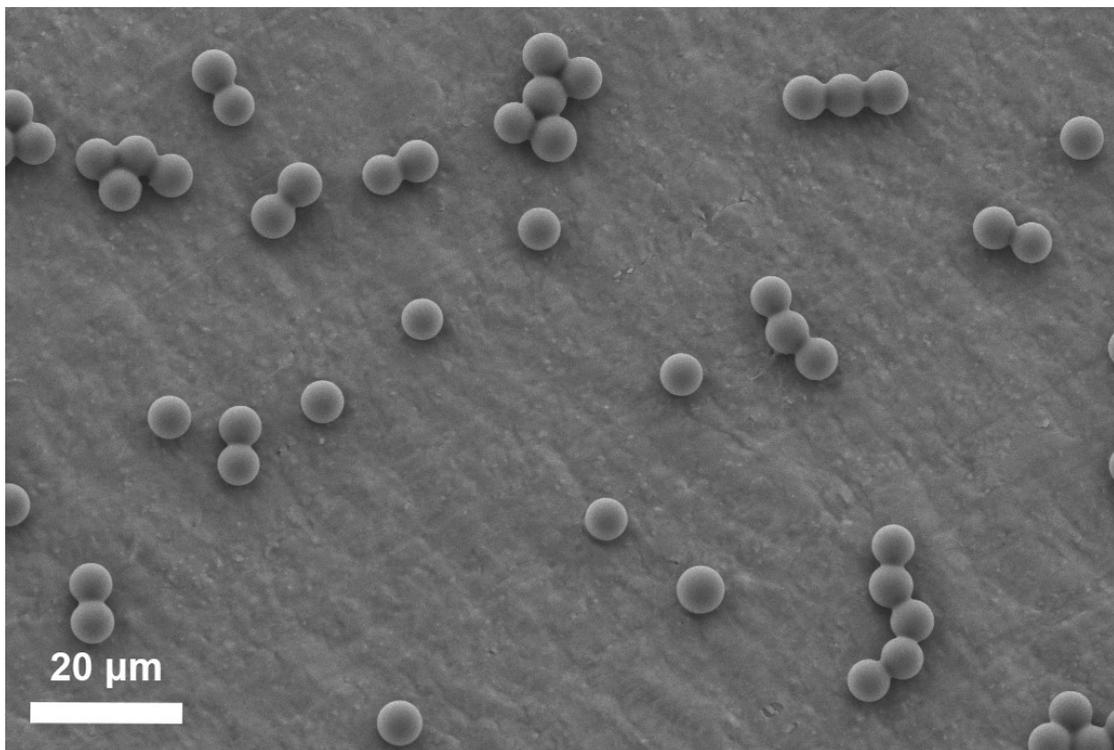


Fig. S2 The SEM image of 5 μm polystyrene spheres.

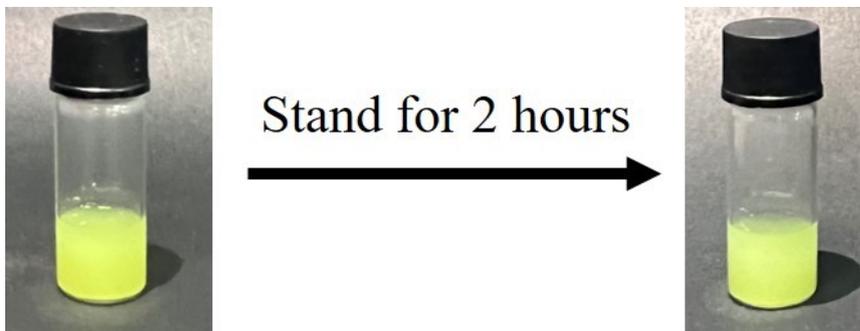


Fig. S3 The sinking process of 5 μm polystyrene spheres in ethanol for 2 hours.

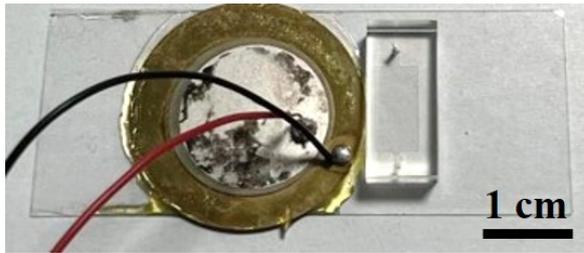


Fig. S4 The photo of fabricated device with a 10 mm×5 mm×60 μm microchamber.

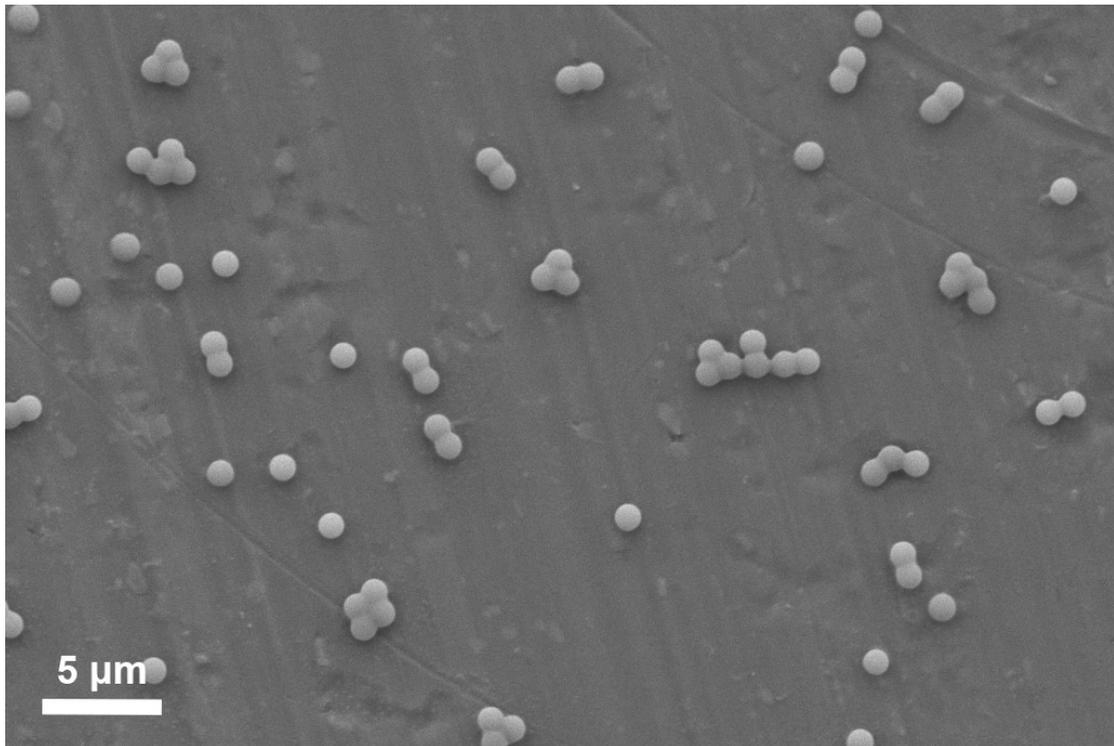


Fig. S5 The SEM image of 1 μm polystyrene spheres.

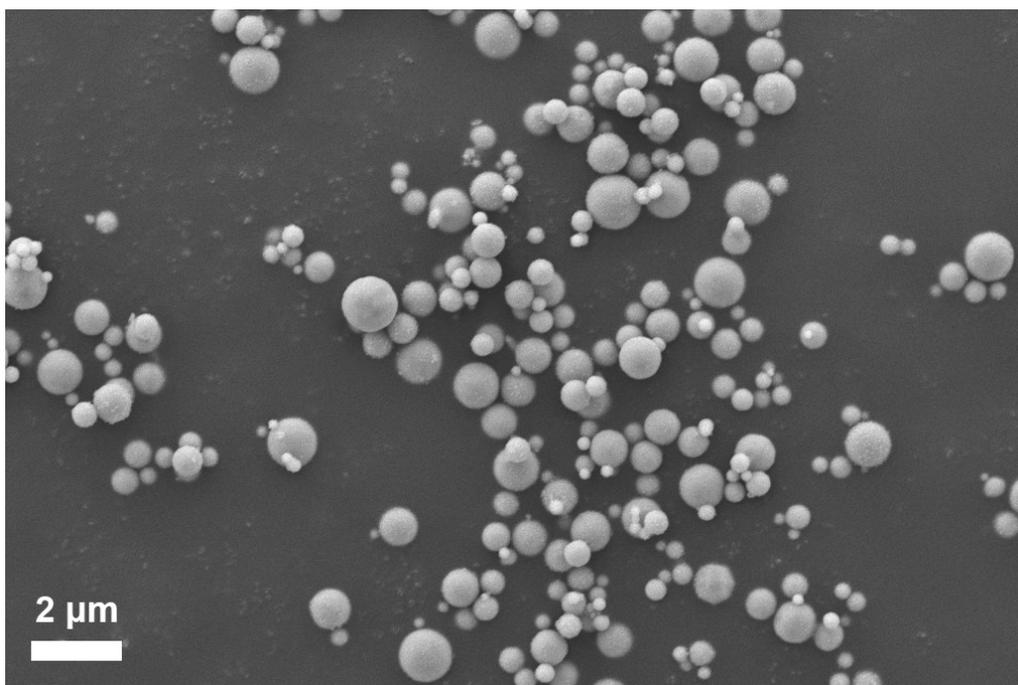


Fig. S6 The SEM image of copper powder with average diameter of 1 μm .

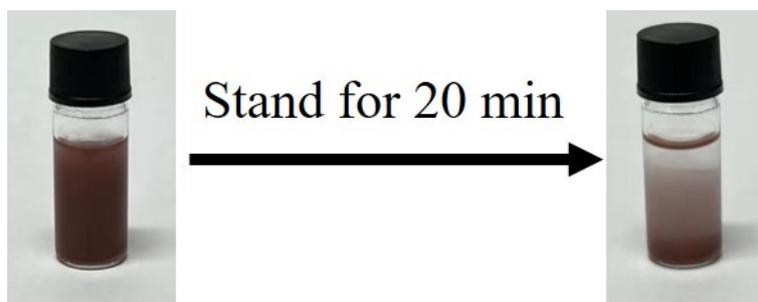


Fig. S7 The sinking process of 1 μm copper powder in ethanol for 20 min.