

Supplementary Material (ESI) for *Lab on a Chip*
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Acoustofluidic coating of particles and cells

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1. The effect of acoustic power on the mixing of laminar flows

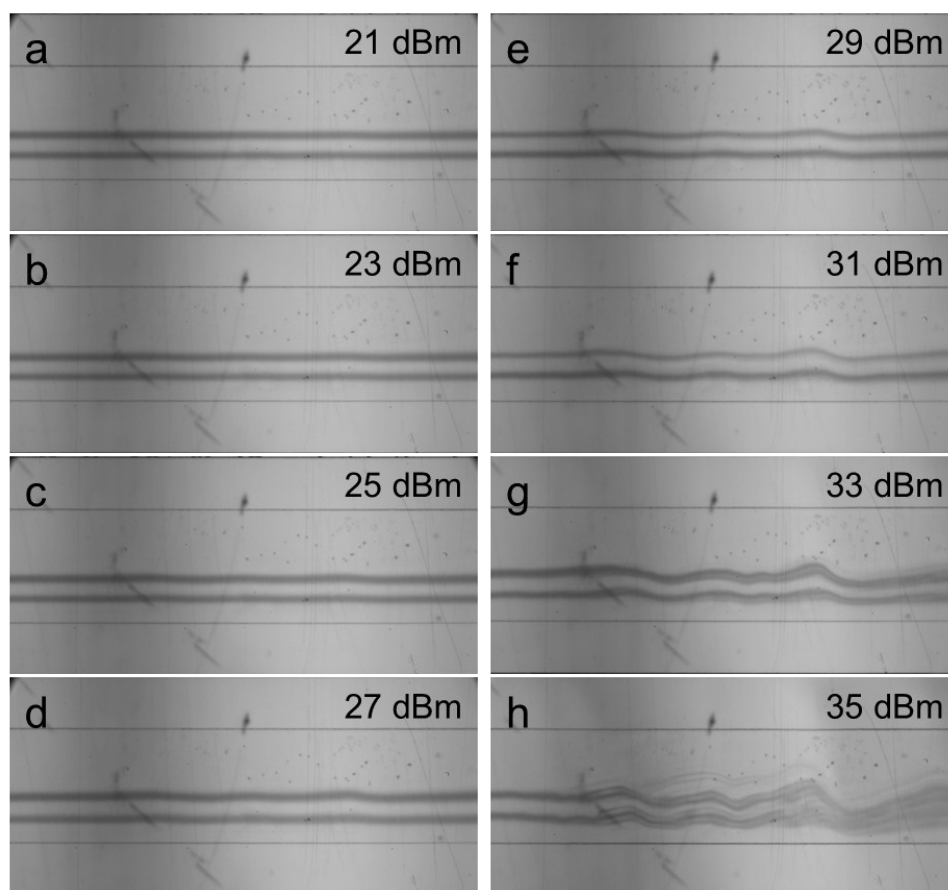


Figure S1: The laminar flow profile was sustained up to ~35 dBm acoustic power: (a–g) Laminar flow preserved between 21 dBm and 33 dBm. h) The layers started to mix at 35 dBm.

2. Video Captions

Supplementary Video 1: **a)** Video taken of the active region of the acoustofluidic device. The polystyrene microparticles were deflected and migrated through multiple flows while preserving the laminar flow profile in the active region. **b)** Video taken at the outlets of the acoustofluidic device. After an RF signal was applied to the IDTs, the polystyrene microparticles left the device through the collection outlet while preserving the laminar flow profile.