

Supplementary Information

Ultrafast star-shaped acoustic micromixer for high throughput nanoparticle synthesis

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Stiffness Simulation

Mechanical stiffness of the cantilevered structures (Figure 7) were determined by a finite element analysis (ANSYS). A 3D model (Figure S1) was developed, meshed using quadratic tetrahedral elements. Fixed boundary conditions were applied at the outer perimeter. Anisotropic elastic properties of (111) oriented Si were used as material properties. A line load was applied at the inner perimeter of the structure, and the deformation was monitored as a function of the applied load. (Figure S2)

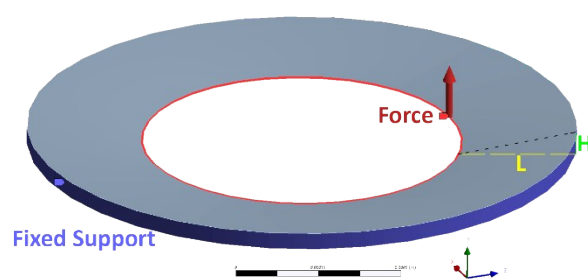


Figure S1 Model geometry and boundary conditions

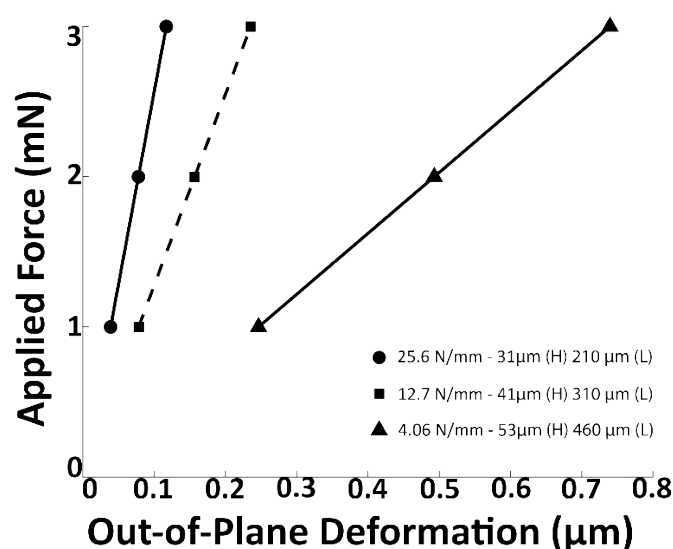


Figure S2 Load vs deflection for different cantilevered structures