Electronic Supplementary Material (ESI) for RSC Advances.
This journal is © The Royal Society of Chemistry 2017

RSC Advances

SUPPLEMENTARY INFORMATION

Acoustic Impedance-Based Manipulation of Elastic Microspheres Using Travelling Surface Acoustic Waves

Ghulam Destgeer, Jin Ho Jung, Jinsoo Park, Husnain Ahmed, Kwangseok Park, Raheel Ahmad, and Hyung Jin Sung*

Department of Mechanical Engineering, KAIST, Daejeon 34141, Korea. E-mail: hjsung@kaist.ac.kr

Rigid and elastic particles

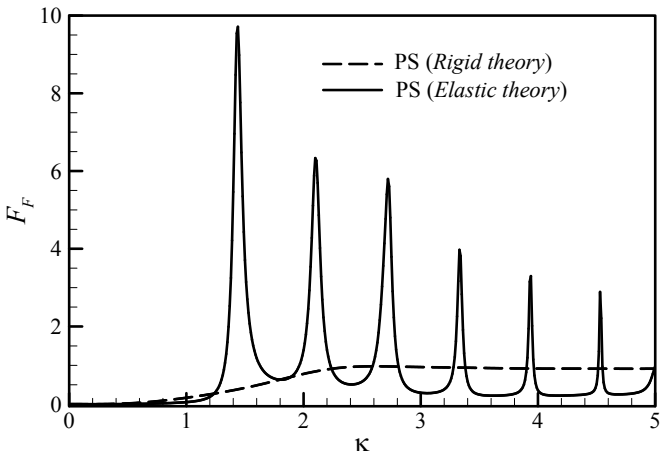

Figure S1. Force factor (F_F) plot for PS particles against dimensionless Helmholtz number (κ) based on the rigid and elastic particle assumption (adopted from ref. 32).

Force factor dependency on density and speed of sound

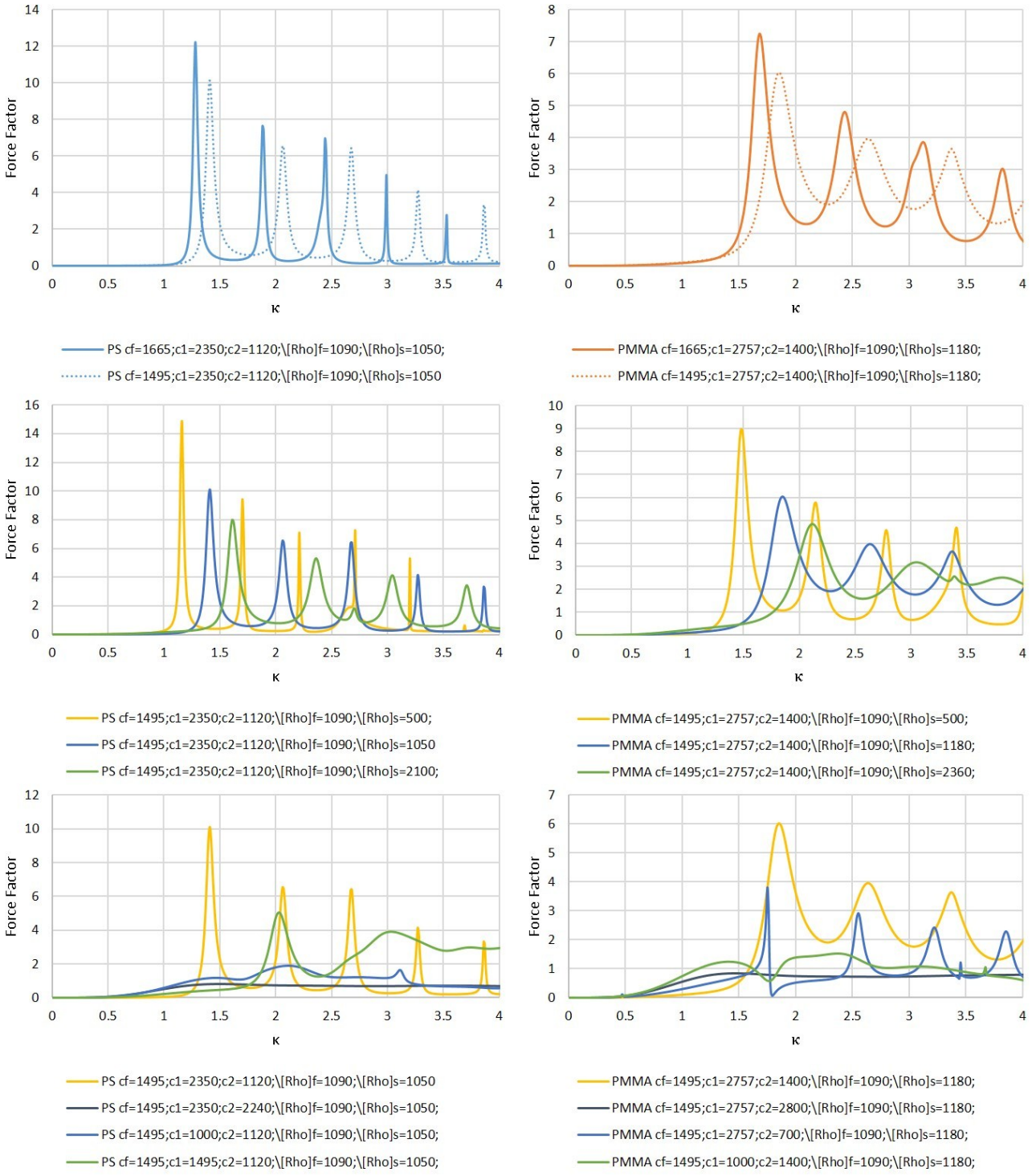

Figure S2. Force factor plot for PS and PMMA particles against κ for changing densities and speeds of sound.

This journal is © The Royal Society of Chemistry 2017

Additional results on PS and PMMA particle manipulation

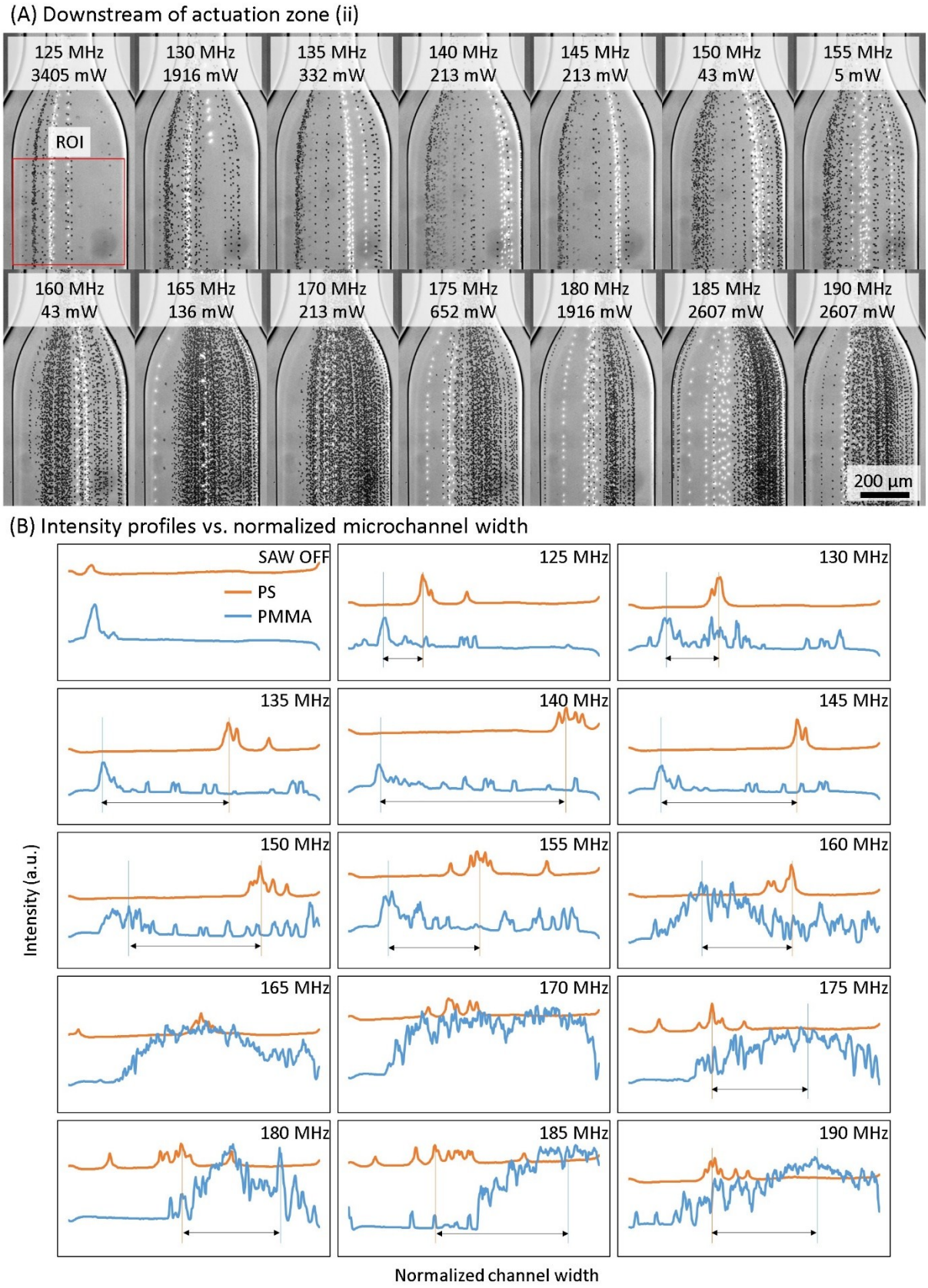

Figure S3. (A) PS (4.8 µm) and PMMA (4.9 µm) particles are exposed to a range of different frequencies as the particles experience different deflection distances. (B) The intensity plots indicates the locations of particles in (A) against the normalized microchannel width.

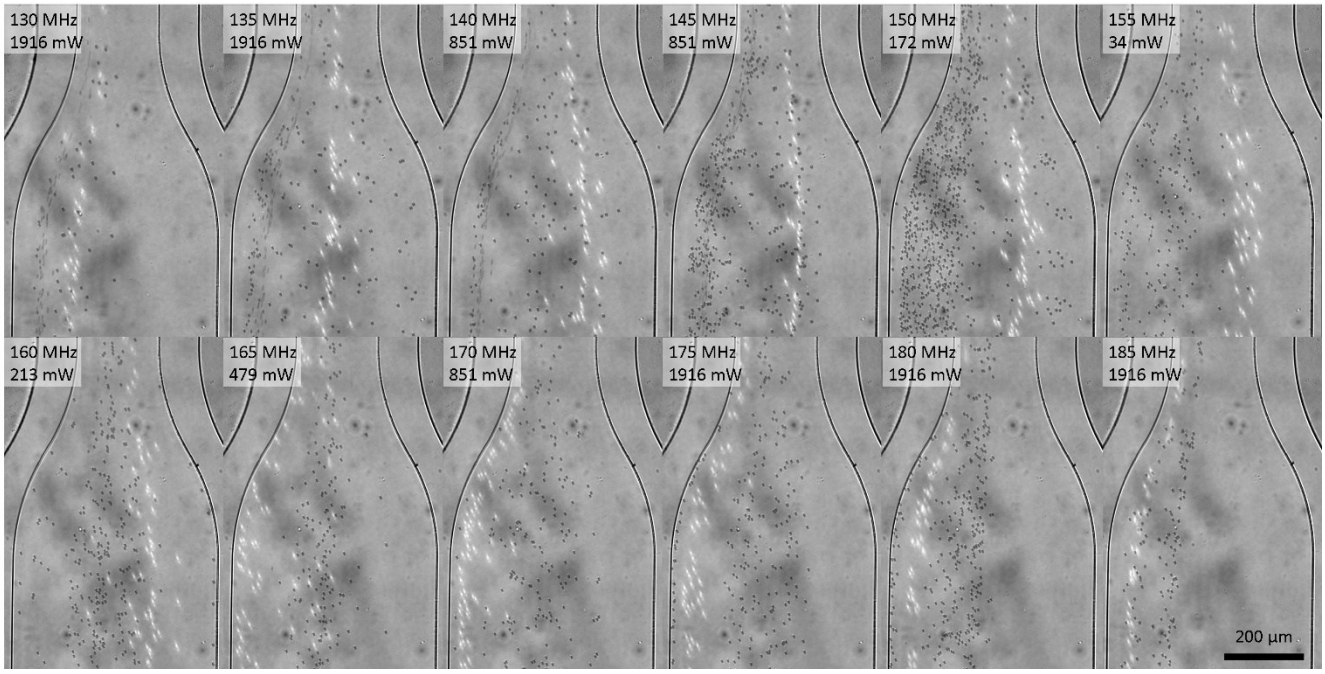

Figure S4. Deflection of PS and PMMA particles at a higher flow rate (1000 µl/h) indicate a similar result as depicted in Fig. S3.

This journal is © The Royal Society of Chemistry 2017