The combination of microfluidics and acoustic waves (acoustofluidics) has been applied for non-invasive and biocompatible cell and particle manipulation  [1]. In a recent acoustofluidic device realization, a nozzle was added to the microfluidic channel. This acoustofluidic device achieved particle manipulation and selective extrusion by balancing acoustophoretic forces and fluid drag due to rectified flow  [2]. Here, we further developed this acoustofluidic device by replacing the material of the microchannel wall from soft PDMS to hard SU-8. The replacement endows the device with a higher acoustic impedance contrast between the microchannel wall and bulk fluid, leading to a stronger acoustic resonance and radiation force  [1]. We explored its application for the selective extrusion of mammal cells from a cell/bacteria mixture. We have found a stable instantaneous accumulation and extrusion of cells by turning acoustic waves on and off.  At the same time,  bacteria escape with fluid flow. The spatial pattern of extruded cells can be controlled by tuning the frequency and intensity of acoustic waves. Our results provide a novel and simple way of selective cell extrusion, which may have potential applications such as pathogen-infected blood purification or bioprinting with cells.

[1] A. Lenshof, M. Evander, T. Laurell, and J. Nilsson, *Acoustofluidics 5: Building Microfluidic Acoustic Resonators*, Lab Chip **12**, 684 (2012).

[2] L. D. Rubio, M. Collins, A. Sen, and I. S. Aranson, *Ultrasound Manipulation and Extrusion of Active Nanorods*, Small **19**, 1 (2023).