Integrated acoustic and magnetic separation in microfluidic channels - DTU Orbit
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Integrated acoustic and magnetic separation in microfluidic channels
With a growing number of cell-based biotechnological applications, there is a need for particle separation systems capable of multiparameter separations at high purity and throughput, beyond what is presently offered by traditional methods including fluorescence activated cell sorting and column-based magnetic separation. Toward this aim, we report on the integration of microfluidic acoustic and magnetic separation in a monolithic device for multiparameter particle separation. Using our device, we demonstrate high-purity separation of a multicomponent particle mixture at a throughput of up to $10^8$ particles/hr. [doi:10.1063/1.3275577]