Supporting Information Available

Figure S1. Two methods for binary image conversion are used to achieve better accuracy. (A) The original grayscale image. (B) First method: The binary image converted with an absolute threshold has the ability to find dim particles (yellow arrow). (C) Second method: The binary image converted according to the compressed local peaks is more accurate when identifying two close particles (white arrow). (D) The combined image of (B) and (C), which compensates the shortcomings of each method, gives an overall more accurate conversion.

Figure S2. Simulated mixing patterns of two species started separately on each side of SGM (left), HM (middle) and SHM (right). In regards to mixing two species, the HM achieves much less mixing than the other two mixers. However, all of these three micromixers exhibit the ability to aid DEP trapping efficiency.
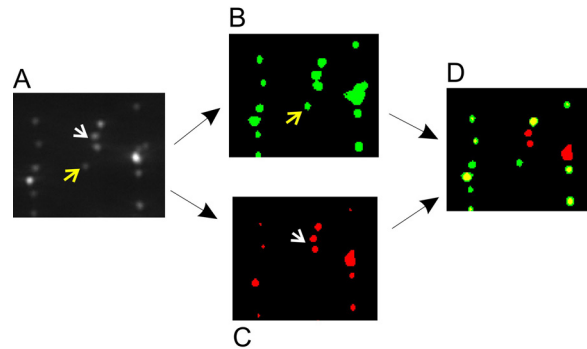
Figure S1

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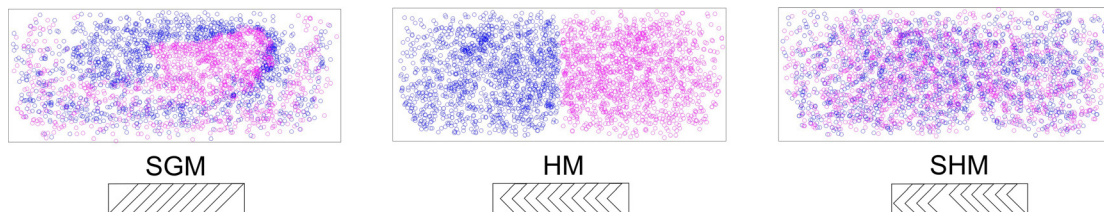
Figure S2

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