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Optical Sorting

Ogaga Akoroda

Illinois Wesleyan University

Gabriel Spalding, Faculty Advisor

Illinois Wesleyan University

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Poster Presentation P1

OPTICAL SORTING

Ogaga Akoroda and Gabriel Spalding*
Physics Department, Illinois Wesleyan University

This research involves optical forces, using an optical lattice to sort particulate matter (e.g., separating stem cells from normal cells) entrained in microfluidic streams, and attempting to analyze the results to the highest degree possible, with the hope that means of increasing the efficiency of sorting at very high throughputs can be identified. Some optical sorting methods that have been proposed utilize active intervention for sorting micrometer-scale particulate matter suspended in microfluidic channels. However, the passive approach being studied may, ultimately, offer greater potential for high throughput, and would be of particular use on the input stages of an integrated lab-on-a-chip system.