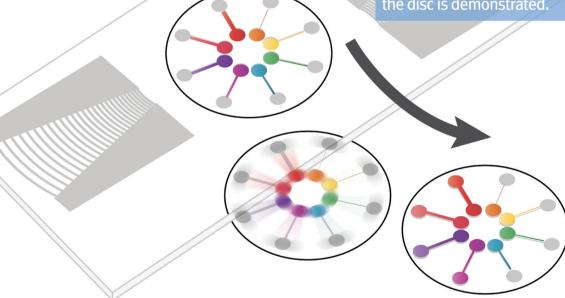
SMC I

MICRO

Lab-on-a-Disc

The miniature Lab-on-a-Disc (miniLOAD) concept shown in this image is the first completely miniaturized centrifugal microfluidics platform driven by solidstate actuation. Unlike its macroscopic Lab-on-a-CD counterpart, which has gained considerable attention to date, but requires a large bench-top rotational motor, the miniLOAD platform does not involve moving parts, is inexpensive, disposable, and considerably smaller. In this first proof-of-concept, its capability to drive capillary valving, mixing, and size-based concentration/separation of aqueous particle suspensions in microchannels patterned on the disc is demonstrated.



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