

Preparation of droplet array by multiple valves

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Microdroplets based microfluidic system is wide applicable tools of chemical and biological experiments at nanoliter scale. Reaction at small scale droplets has several advantages such as rapid mixing, low cost analysis, less cross contamination and less sample loss.

Here, we present a multiple droplet array system integrated with multiple microvalve system. The droplet array could generate, transport, store, merge, split, and sort under optimized condition. We expected this reactions with various combinations of reagents.