

Microdroplet electrowetting on flexible paper-based microfluidic chip

ABSTRACT

This paper reports about the study of microdroplet reaction in electrowetting technique, which takes place in between two planar plates of electrode activated beneath the conductive droplet, with a low-cost material of production. In this paper, we show the result of frequencies effect to the droplet's velocity and contact angle by using the low-cost electrode material, which made from Aluminum sheet. The best frequency and voltage to be used with a 5 μ l droplet of 1400 μ S/cm KCl is 10Hz and 10Vpp respectively.

Keyword: Electrowetting; Microfluidic Chip; Microdroplet