

Fabrication of microfluidic paper-based device using stamp method

최진술, 정현호^{1,†}

전남대학교 여수캠퍼스; ¹전남대학교 화공생명공학과

(jeonghh29@jnu.ac.kr[†])

Paper-based microfluidic analytical devices(μ PADs) have recently been in the spotlight for their varying applicability including point-of-care diagnostics and environmental material detection. To date, printing is the most adopted method owing to its low cost and simple procedure. PDMS(polydimethylsiloxane) is the most popular polymer in microfluidics research owing to its easy fabrication, transparency, low electrical conductivity, and elasticity. To form the hydrophobic barrier using PDMA, we apply the contact printing technique using the plastic stamps. We optimize the μ PAD fabrication by controlling the contacting condition including spin-coating rate, reagent ratio and contacting time. These μ PADs can be used for field analysis or even in developing countries.