

Fabrication of Paper-based Microfluid Analysis devices(μ PAD) using PDMS

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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. However, incompatibility with some organic solvents and low thermal resistance are challenging. 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 and contacting time.