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Formation of Round Channel for Microfluidic Applications

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Abstract : PDMS (Polydimethylsiloxane) polymer is a suitable material for biological and MEMS (Microelectromechanical systems) designers, because of its biocompatibility, transparency and high resistance under plasma treatment. PDMS round channel is always been of great interest due to its ability to confine the liquid with membrane type micro valves. In this paper we are presenting a very simple way to form round shape microfluidic channel, which is based on reflow of positive photoresist AZ® 40 XT. With this method, it is possible to obtain channel of different height simply by varying the spin coating parameters of photoresist.

Keywords : lab-on-chip, PDMS, reflow, round microfluidic channel
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