

### 3D printed microfluidic devices in PDMS in one session

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In this study, we fabricated microfluidics devices by direct printing of polymeric materials in polydimethylsiloxane(PDMS) prepolymer. For successful 3D printing, the adequate combination of a printing bath and an ink material is critical. We choose Sylgard® 184 as a printing bath, and Pluronic® F-127 aqueous solutions (PF127aq) as a liquid ink for the 3D printing. Prior to the printing of microfluidic structures in PDMS at room temperature, we investigated the optimal concentration and the viscosity of PF127aq at the various weight ratios. Optimal air pressure for the printing of line segments was determined by the verification of the thickness of line segments at different air pressure.