

## Texture-structure-based liquid metal filling for blind-end microchannels and its application on multi-layer chips

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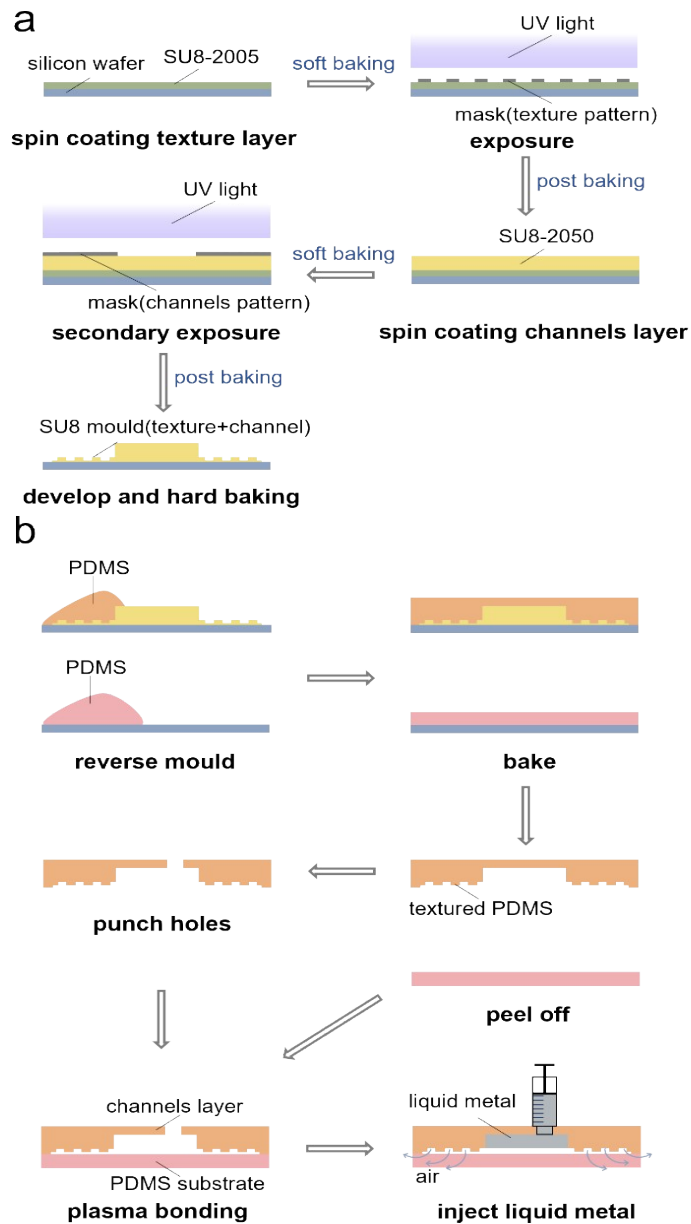


Fig. S1 Chip fabrication process using multi-lithography technology for blind-end injection. a) Multi-lithography technology process. b) Chip fabrication process.

Fig.S1 shows the fabrication process of double-layer lithography. Firstly, a texture layer is fabricated using SU8-2005 and then a blind-end microchannel layer is fabricated on the upper layer using SU8-2050. The microfluidic chip fabricated by this method also realizes the fast injection of complex blind-end microstructures.

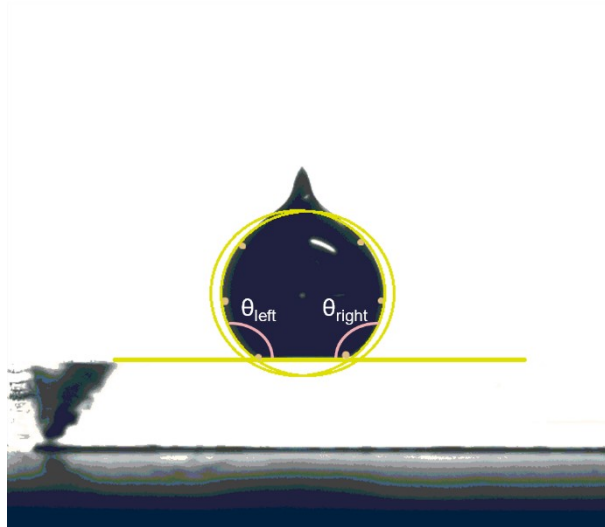


Fig. S2 Contact angle of liquid metal on PDMS with texture structure

Fig.S2 shows an image of liquid metal (EGaIn) on a PDMS substrate with a texture structure in a room-temperature air environment taken with a contact angle meter (POWEEACH JC2000D1, China) and the contact angle of a liquid droplet on the substrate is measured to be  $145^\circ$  using the "eight-point method".