Electronic Supplementary Material (ESI) for Lab on a Chip.

Electronic Supplementary Information

Advanced selective liquid-metal plating technique for stretchable biosensor applications

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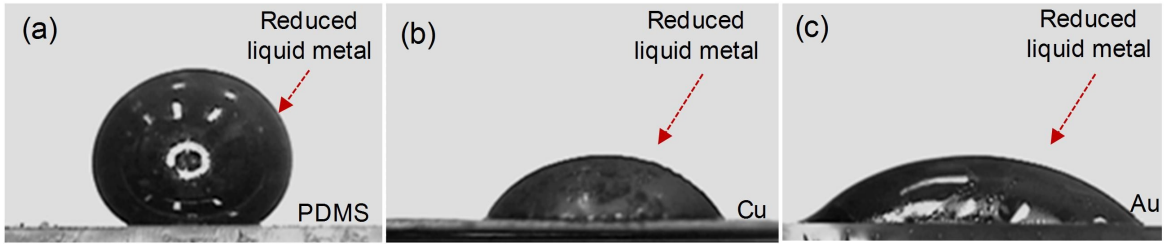

Fig. S1. Wetting behavior of 37 wt % HCl-treated reduced liquid metal on **a)** PDMS, **b)** Cu, and **c)** Au substrate.

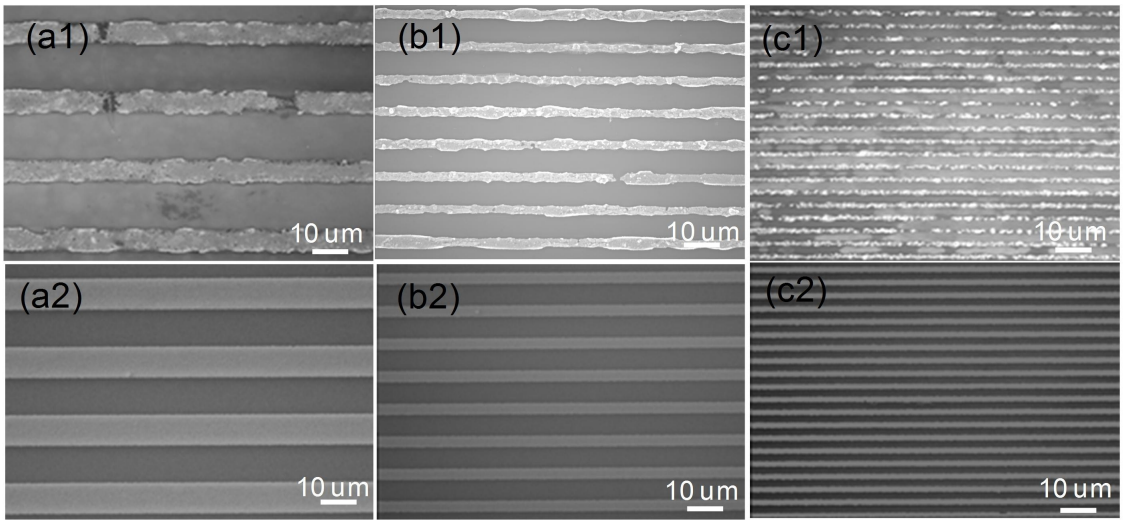

Fig. S2. SEM images of liquid-metal patterns with different line widths (10 μm, 5 μm, and 2 μm) fabricated using **a1), b1)** and **c1)** without improvement and **a2), b2),** and **c2)** with improved SLMP technique, respectively.

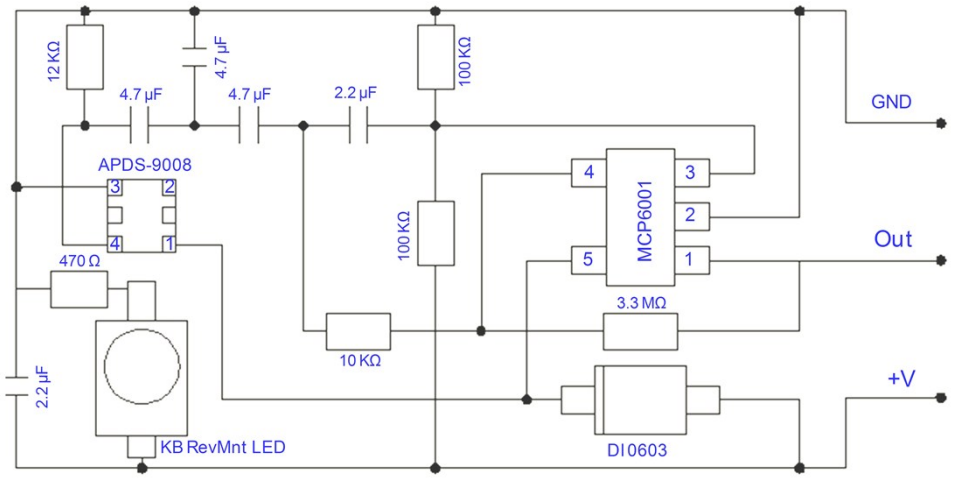

Fig. S3. Circuit diagram of the pulse sensor.

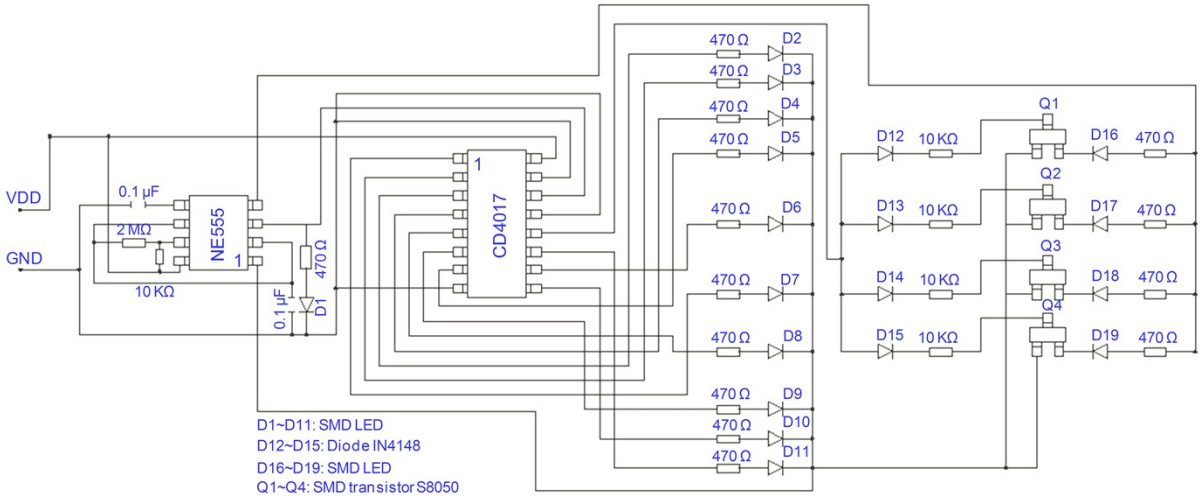

Fig. S4. Circuit diagram of the flowing LED light.

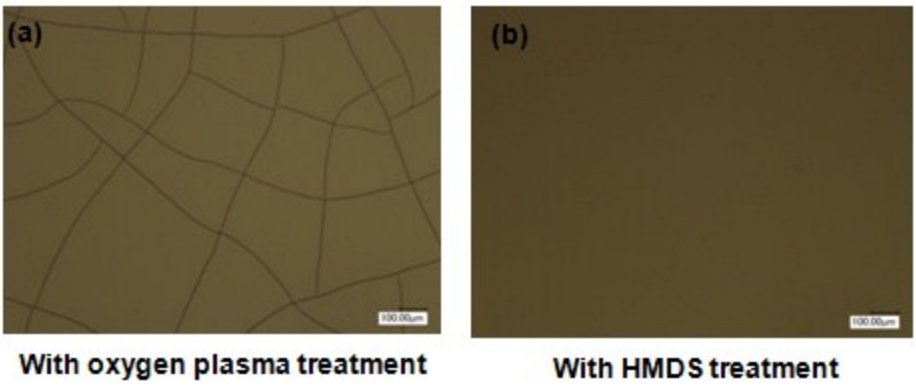

Fig. S5 Cr/Au (10/100 nm) metal deposited on PDMS which is processed with (a) oxygen plasma and (b) HMDS

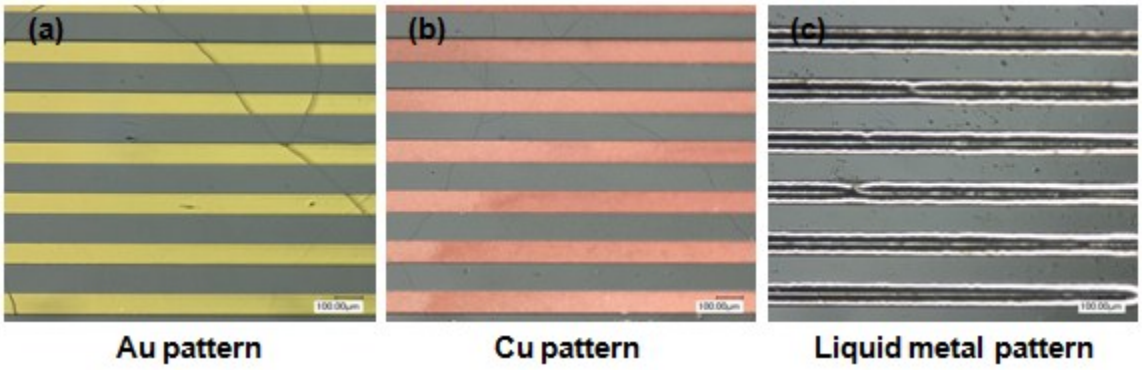

Fig. S6 (a) Au/Cr Pattern; (b) Cu pattern; (c) liquid metal pattern

Video SV1. The video shows the measurement of the pulse waveform using the wireless pulse-measurement system when the pulse sensor is attached to a human finger.

Video SV2. The video shows the pulse waveform on the self-programmed interface of the visualization software.