

Supporting Information for:

Selective Metallic Coating on 3D-Printed Microstructures on Flexible Substrates

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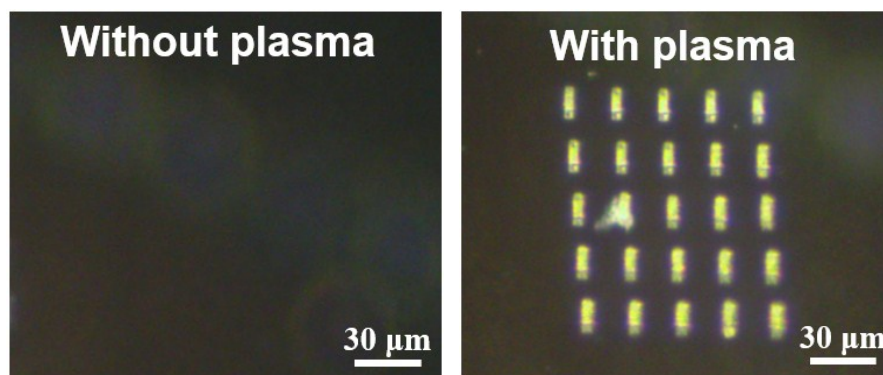


Figure S1. Top view images of TPP printed samples under optical microscopy. After TPP process, the un-cured Ormocomp resin needs to be washed off by MIBK and acetone. The printed microstructures on pristine PDMS substrate had bad adhesion and were washed off due to the hydrophobic nature of PDMS. On the other hand, fabricated microstructures showed good adhesion on the plasma treated PDMS and were observed clearly under microscopy.

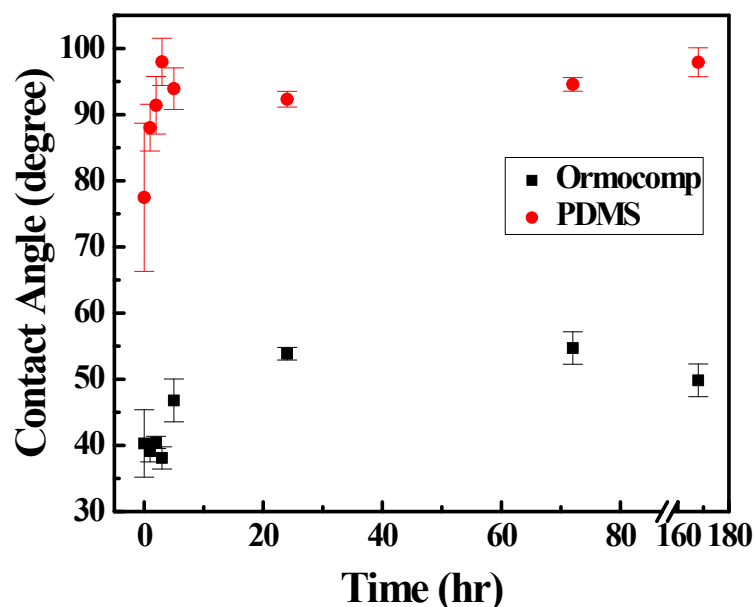


Figure S2. Variation of contact angles of a water droplet (1 μ L) with time on PDMS and Ormocomp surfaces. After the plasma treatment (0 hr), the contact angles of two components decreases significantly to $\sim 10^\circ$, indicating the formation of hydroxyl groups. But the PDMS surface recovers quickly to hydrophobic state ($> 90^\circ$) in a few minutes (< 2 minutes) while the contact angle on Ormocomp remains $\sim 50^\circ$. The lower contact angle on Ormocomp indicates the remaining hydroxyl groups on the surface.

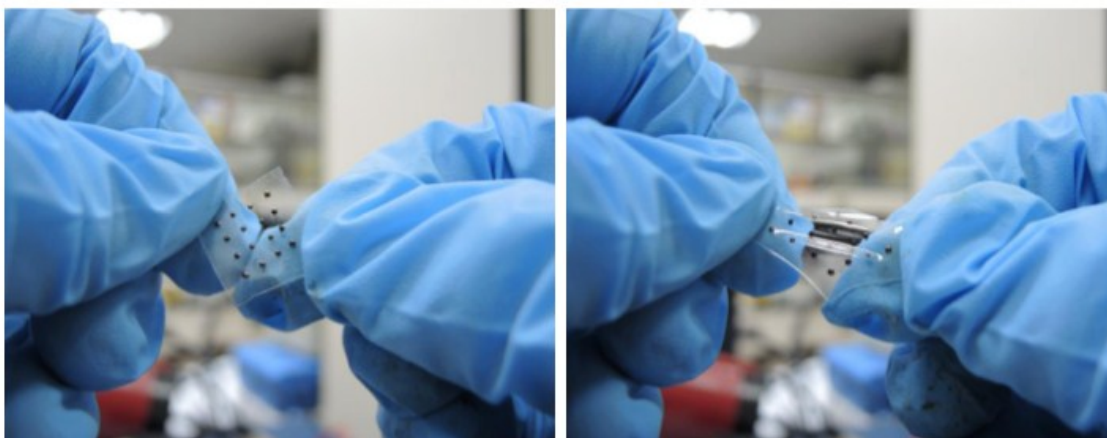


Figure S3. Photograph of Ormocomp lens array. The strong adhesion of the lens leads to a fairly good mechanical stability even under stretching conditions.

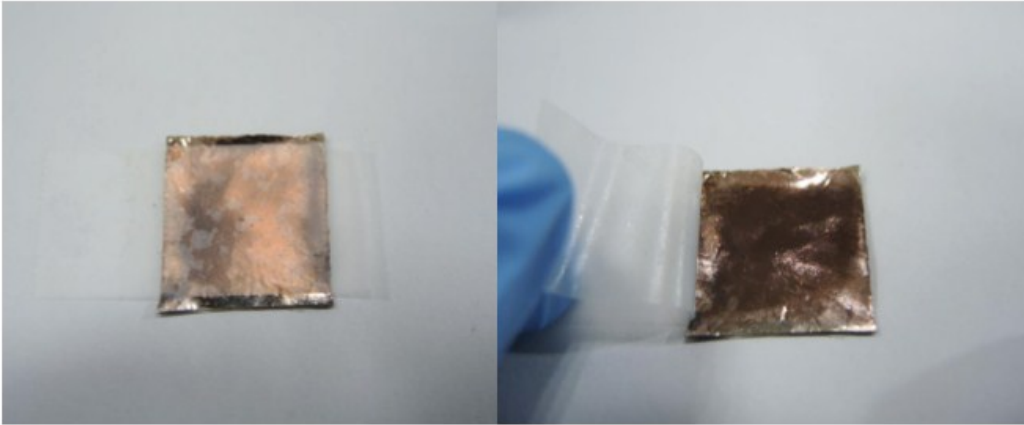


Figure S4. Tape test for copper plated Ormocomp thin film on PDMS.