

“Pop-slide” patterning: Rapid fabrication of thin film PDMS microstructures on glass for biological applications

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Electronic Supplementary Information

TIME (MIN)	TEMPERATURE (°C)
10	60
5	65
5	70
3	80
3	90
1	100
1-2	145

Table S1: Sequence of temperatures and corresponding times required to bake the silicon master mold in pop slide patterning technique. This heating protocol is suitable for aspect ratios ranging from 0.066 to 3.

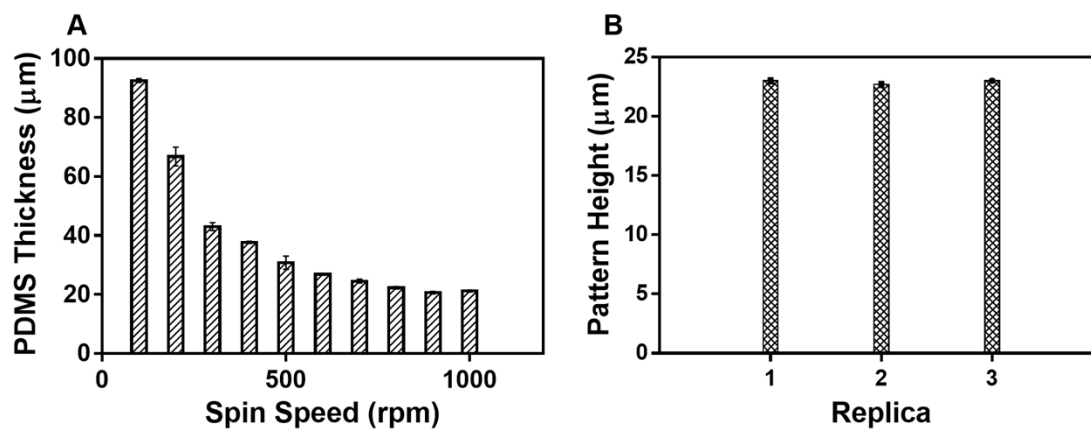


Figure S1. A) Spin speed profile of varying thickness of the PDMS: hexane mixture (1:1), if PDMS is spin coated on master prior to placing glass on top of it. B) Plot representing the pop-slide patterning efficiency indicating uniform pattern heights for 3 experimental replicates.

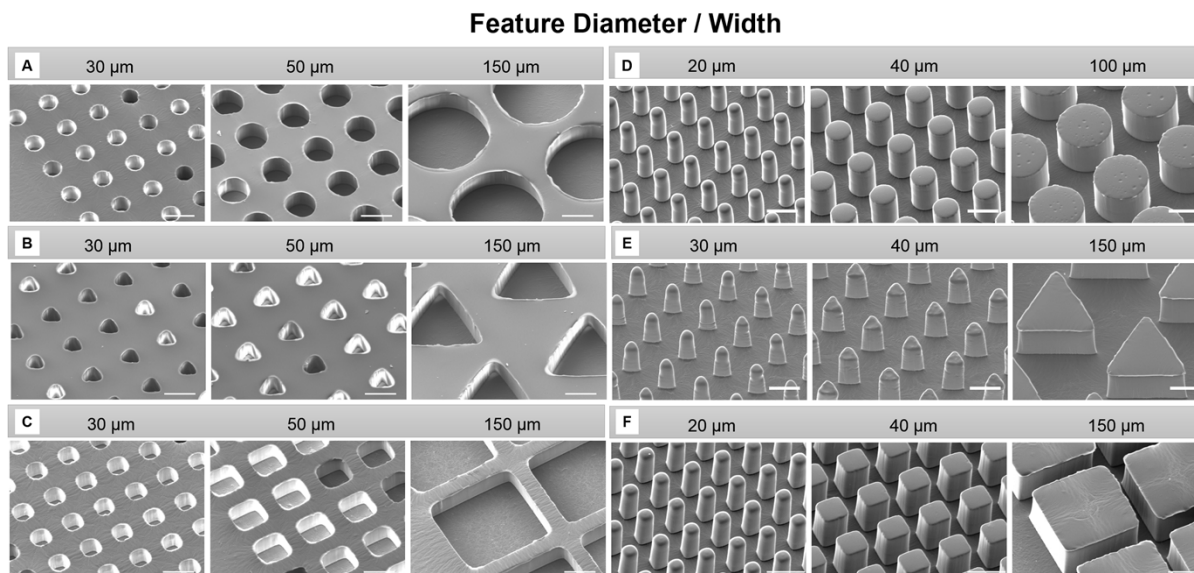


Figure S2. SEM images of PDMS microstructures patterned on a glass slide using pop-slide method (master mold prepared using a plastic photomask with 10 μm minimum resolution). (A-C) circular, triangular & square wells aspect ratios between 0.13 to 0.66. (D-F) circular, triangular & square pillars of aspect ratios between 0.25 to 1.9, on glass. Scale bar represents 50 μm .

5 μm pillar array

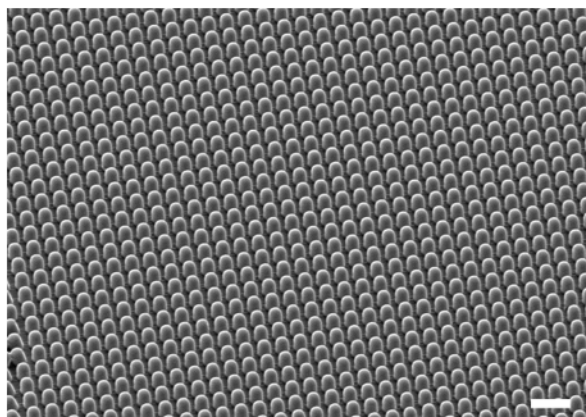
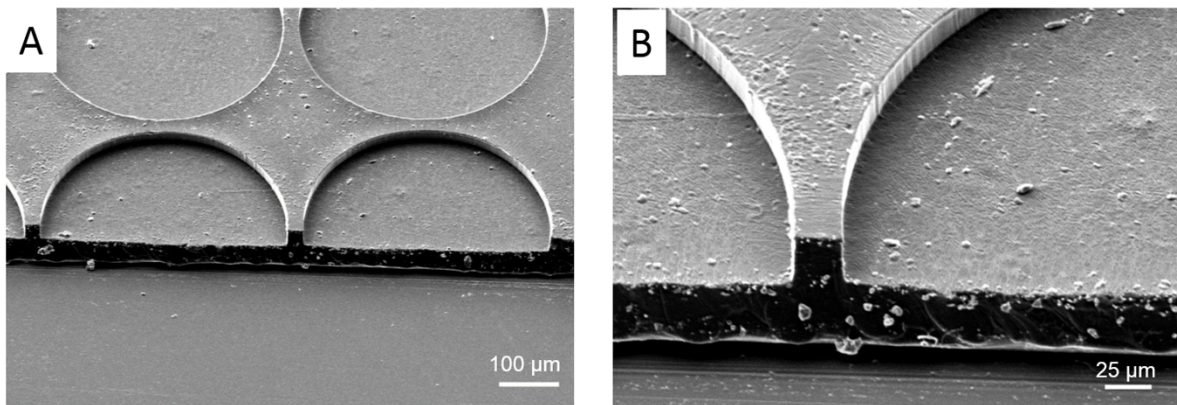


Figure S3. SEM image of an array of micro-pillars. Scale bar represents 20 μm .

No Weight (0g)



Added Weight (37g)

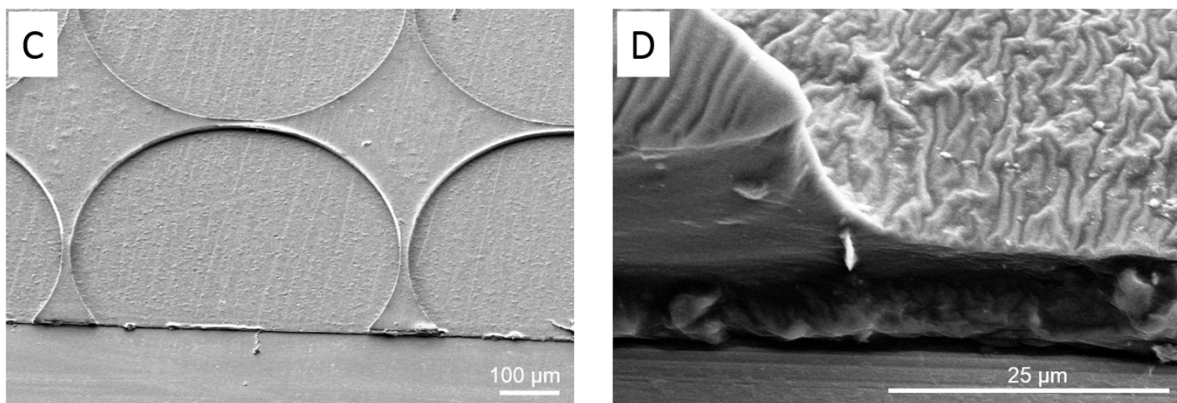


Fig S4: SEM images of PDMS microwells patterned on a glass slide. (A & B) represent features produced without weights during the pop slide patterning technique. This clearly shows a 28 - 30 μm thick PDMS layer between the glass slide and the features. (C & D) represent features produced by the same approach while adding 37g block on top of the glass slide. This reduces the thickness of the bottom PDMS layers to 7-8 μm