

Supplementary Information

Fabrication of chemofluidic integrated circuits by multi-material printing

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Video S1: Printing with PEG into a hole with diameter 500 μm located in 175 μm thick PMMA foil.

Video S2: Printing with prepolymer solution (450 drops with 550 pl each) on PMMA substrate with 600 μm diameter engraving.

Video S3: Unrestricted fluid flow through engraving in spite of successful hydrogel actuator operation (575 μm diameter valve seat), caused by layer misplacement.

Video S4: Free swelling of hydrogel (400 drops, 60 s exposure time) in water.

Video S5: Recorded video of the fluidic IC-program of the application chip.

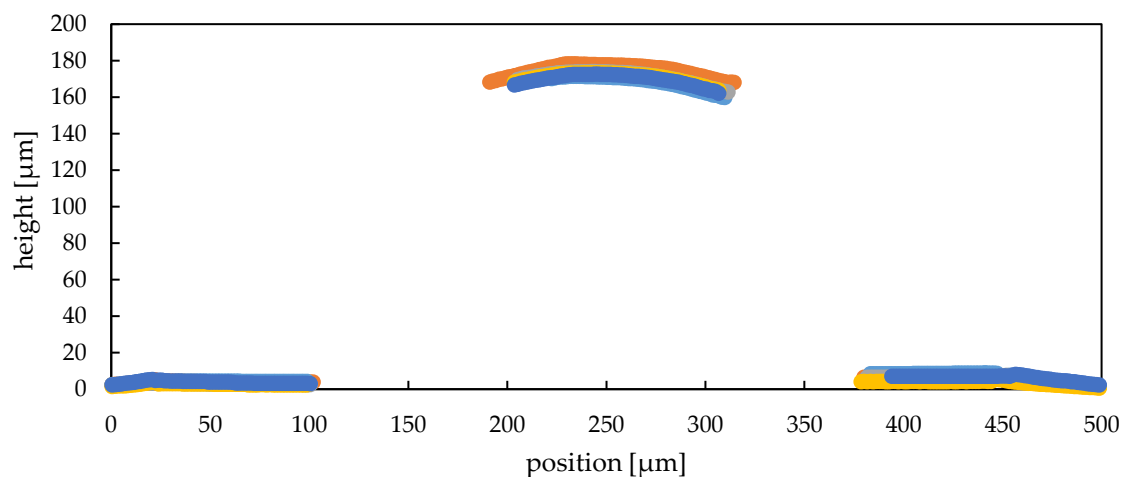


Figure S1: Line profiles of five hydrogels obtained with a confocal scanning microscope $\mu\text{-Surf}$. Invalid data due to the slope near the edge was removed.

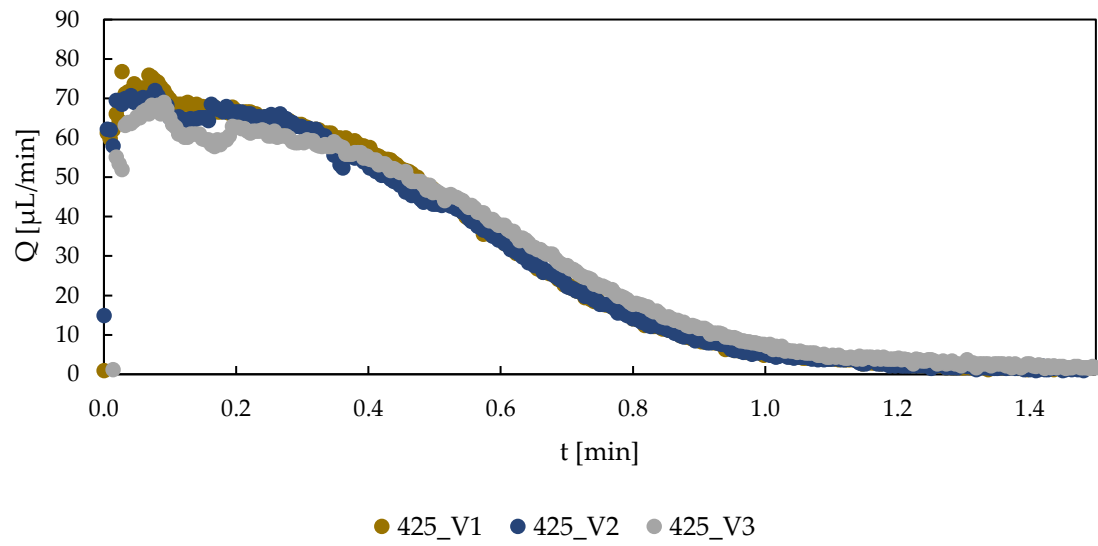


Figure S2: Closing curve diagram for three hydrogels (400 drops, 60s exposure time) in valve seats of 425 μm diameter.