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## **Supporting Information for RSC Advances**

## Multifunctional reversibly sealable microfluidic devices for patterned material deposition approaches

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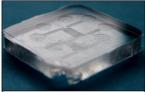
## **Supporting Information**

## Figure S1

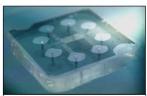
PDMS device fabrication in pictures – photographs on the left hand side and according schematic drawings on the right hand side. Including one fluorescence microscopy image obtained while utilizing the four-channel PDMS stamp produced during the photo series.



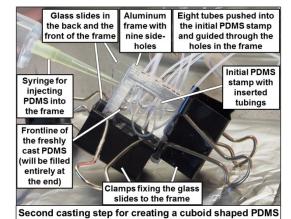
Four-channel SU-8 master structure (here, SU-8 2050) on silicon wafer piece



PDMS stamp after first curing step



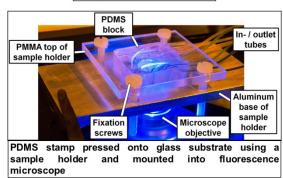
PDMS stamp after punching holes into every in- / outlet section

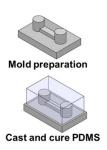




stamp with enclosed tubings

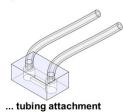
Final cuboid shaped PDMS stamp with four channels and eight attached enveloped tubings





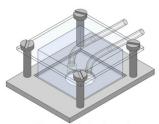


Preparation of holes for ...

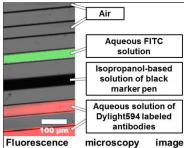


fabrication rout

Enclose channel system in 2<sup>nd</sup> PDMS layer using another casting frame



Mount substrate and adjusted channel system in (microscopy) holder



Fluorescence microscopy image combining the information obtained by using the bright field mode, one fluorescence mode detecting red fluorescence and one fluorescence mode detecting green fluorescence visualization of the four separate channel systems filled with different fluids

Figure S1