

Supporting Information

# Reducing Unspecific Protein Adsorption in Microfluidic Papers using Fiber-Attached Polymer Hydrogels

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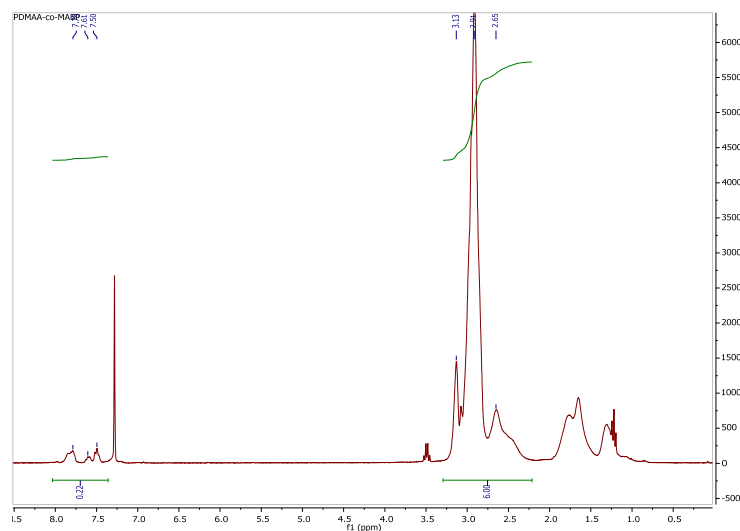


Figure S1: <sup>1</sup>H-NMR of PDMAA-co-MABP.

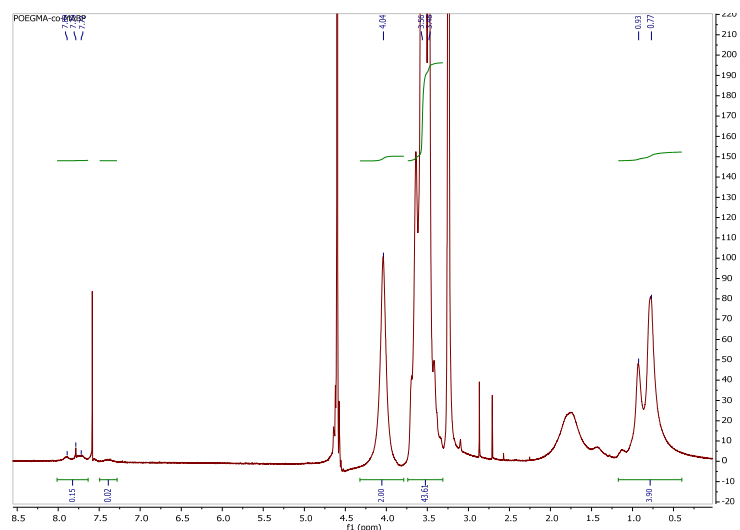
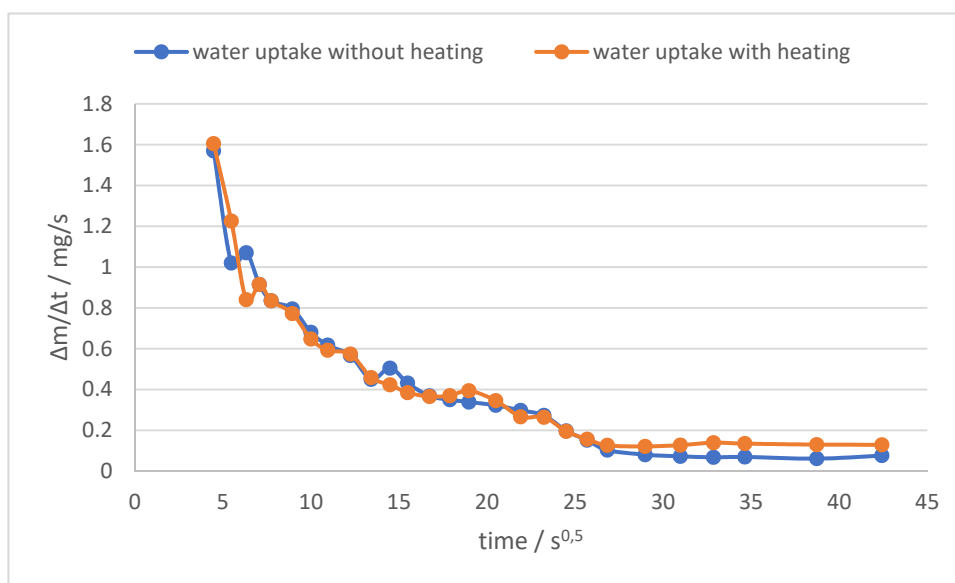


Figure S2: <sup>1</sup>H-NMR of POEGMA-co-MABP.



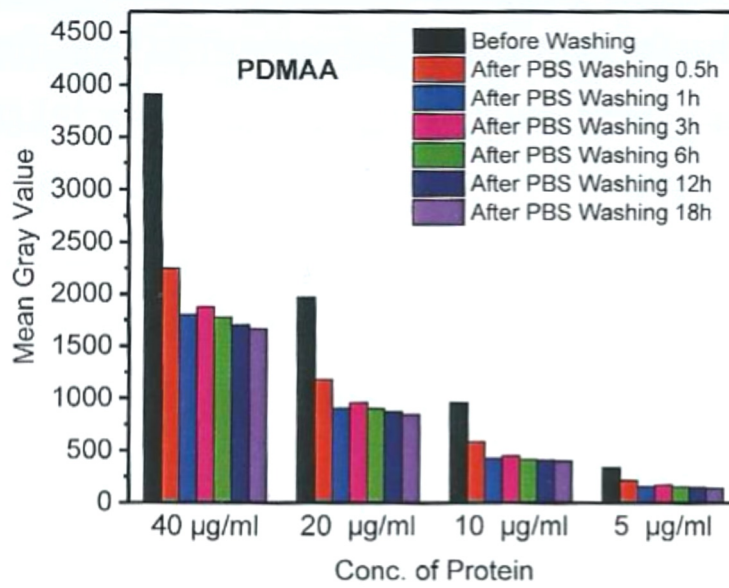
**Figure S3:** The flow setup for evaporation experiments. The back of the paper strip is laying on top of a heating pad that evaporates water at 40 °C.



**Figure S4:** Water uptake in a vertical flow setup with and without heating. In the heated setup an equilibrium uptake of ~75% more water can be observed.

**Table S1:** Water uptake of unrefined cotton linters

| Weight<br>/gm <sup>2</sup> | Dry weight<br>/g | Wet weight<br>/g | Difference<br>/g | Weight uptake<br>/% | Avg. uptake<br>/% |
|----------------------------|------------------|------------------|------------------|---------------------|-------------------|
| 50                         | 0.0531           | 0.3091           | 0.256            | 582.11              | 571.255115        |
|                            | 0.0399           | 0.2236           | 0.1837           | 560.40              |                   |
| 84                         | 0.047            | 0.2469           | 0.1999           | 525.32              | 528.996208        |
|                            | 0.0505           | 0.269            | 0.2185           | 532.67              |                   |



**Figure S5:** Reference experiments from Rhe et al. The figure shows the retained fluorescent signal of a model protein that was dried on a PDMAA hydrogel layer and was subsequently extracted with PBS. [32]