

Supporting Information
for

Fractography of poly(*N*-isopropylacrylamide) hydrogel networks crosslinked with mechanofluorophores using confocal laser scanning microscopy

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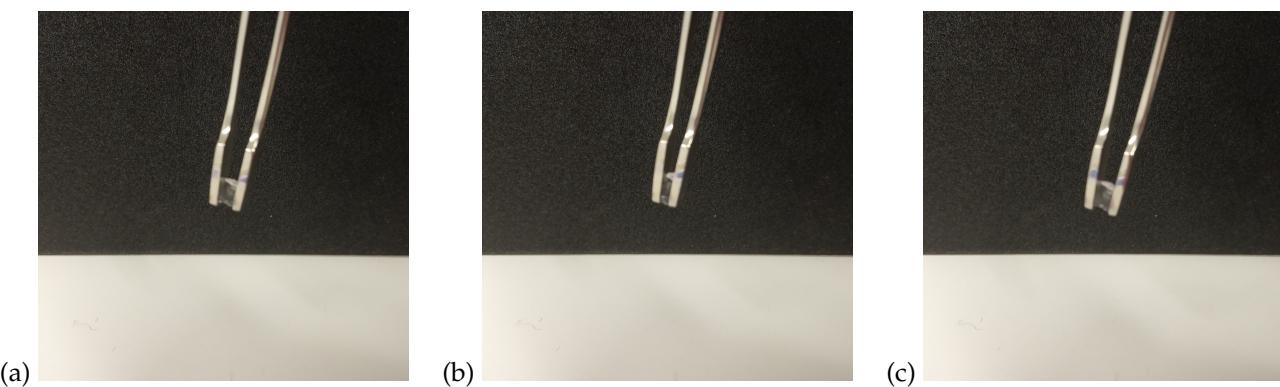


Figure S 1: Macrophotographs of a PNIPAAm hydrogel sample: (a) before; (b) during; and (c) after compression with laboratory tweezers.

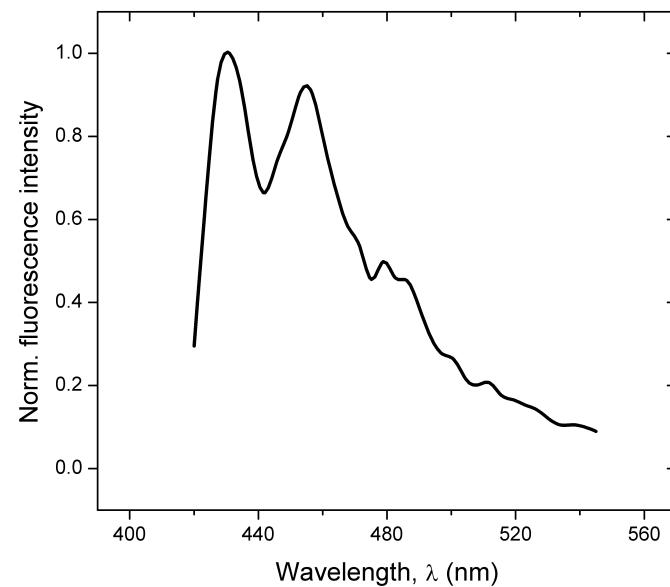


Figure S 2: Mechanophore activation recorded by performing a λ -scan from 420 to 550 nm with $\lambda_{exc}=405$ nm.

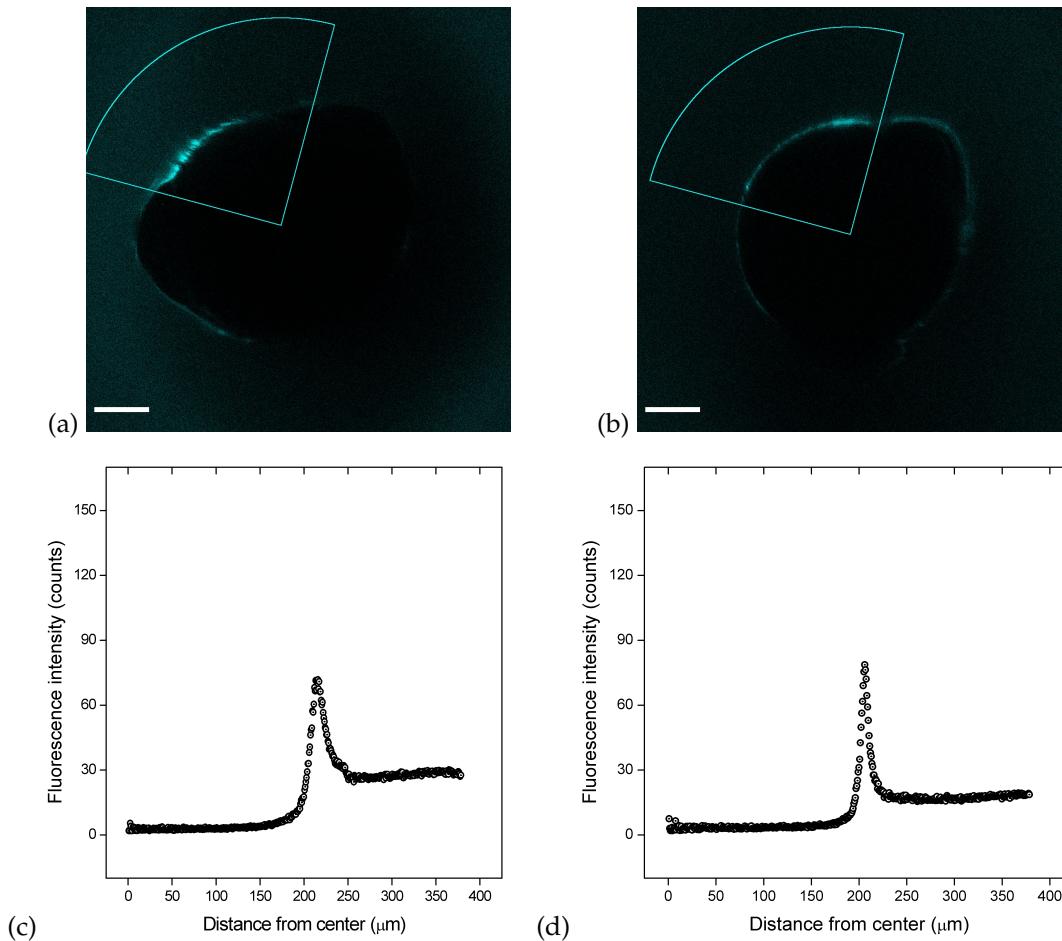


Figure S 3: Control experiment for the mechanophore: (a) circular trace from a punctured swollen sample at d_s approx. 18%; (b) circular trace from the punctured swollen sample that has been let to completely dry; (c) intensity values for case (a); (d) intensity values for case (b). The scale bar is 100 μm .

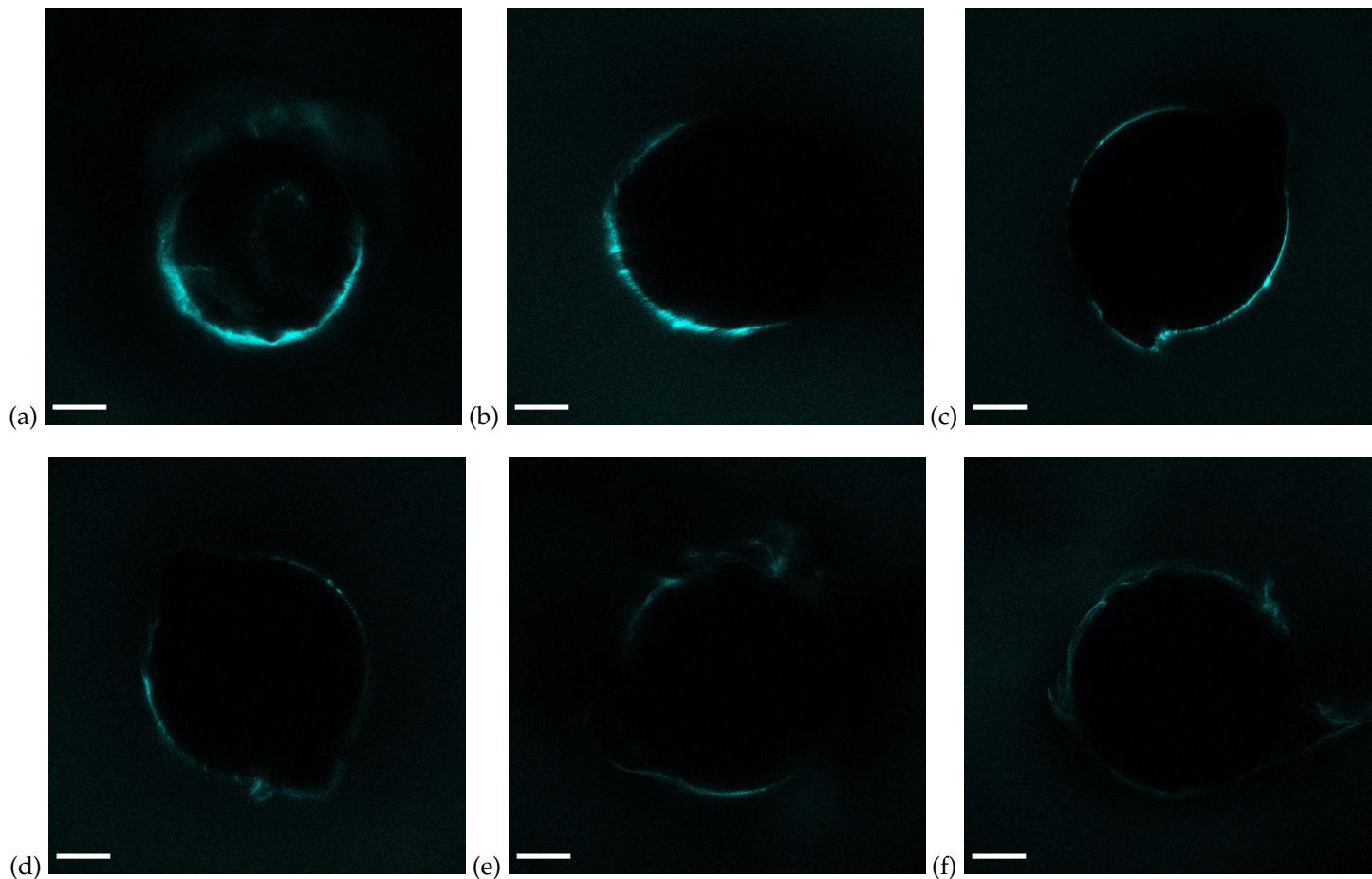


Figure S 4: Confocal laser scanning microscopy images of needle-punctured rectangular PNIPAAm hydrogel samples swollen to different d_s : (a) 0; (b) 8.4%; (c) 21.1%; (d) 28%; (e) 41.1%; (f) 128.3%. The scale bar is 100 μm .

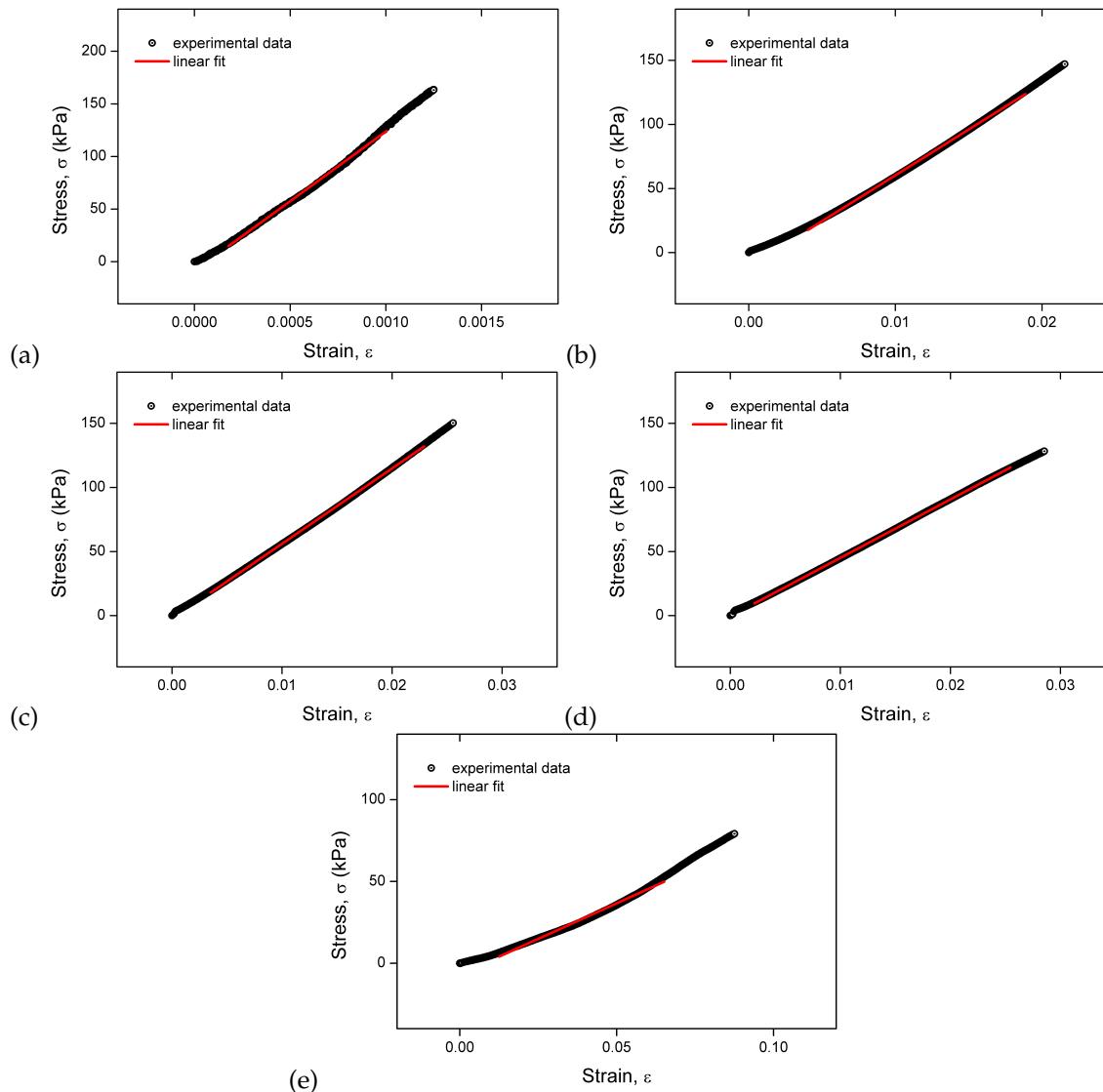


Figure S 5: Stress-strain curves determined by uniaxial compression of the cylindrical PNIPAAm hydrogel samples swollen to different d_s : (a) 0; (b) 21%; (c) 27%; (d) 65%; (e) 179%. The linear fit of the curves for the determination of the elastic moduli values is also shown with a solid line. 1st set of measurements.

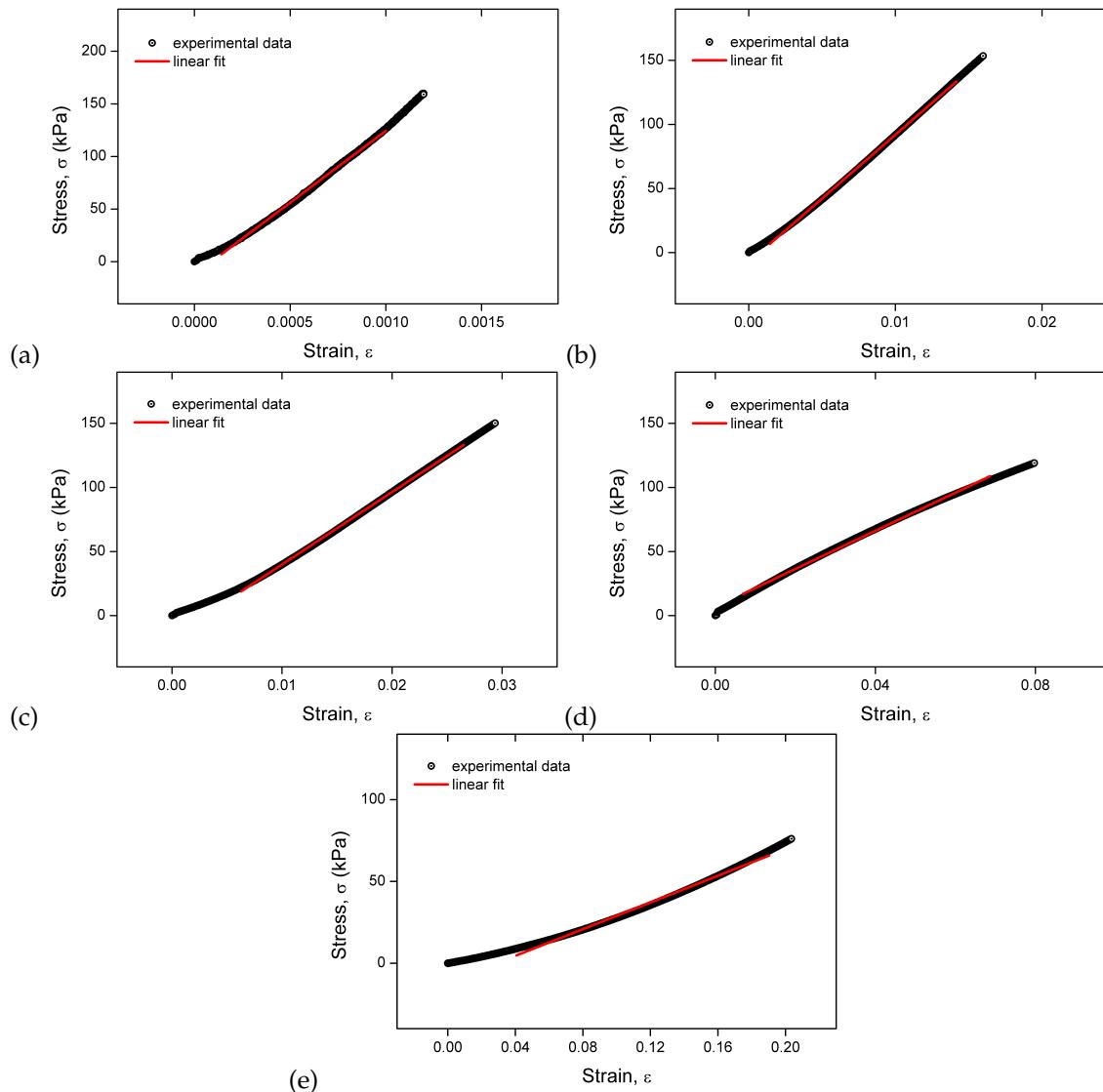


Figure S 5 (Cont.): Stress-strain curves determined by uniaxial compression of the cylindrical PNIPAAm hydrogel samples swollen to different d_s : (a) 0; (b) 21%; (c) 27%; (d) 65%; (e) 179%. The linear fit of the curves for the determination of the elastic moduli values is also shown with a solid line. 2nd set of measurements.