

File Name: Supplementary Movie 1

Description: Double-network (DN) hydrogel was immersed in a concentrated *N*-isopropylacrylamide (NIPAm) aqueous solution and pressed with a macro-size indenter of 4 mm-diameter. Upon pressing the indenter, the transparent hydrogel rapidly turns to turbid in the pressed region within seconds. The results indicate that force-triggered polymer strand scission induces rapid radical polymerisation of NIPAm monomer to form poly(*N*-isopropylacrylamide) (PNIPAm).