Supplementary Materials for

# Intrinsic-water desorption induced thermomechanical response of hydrogels

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## 1 Experimental details

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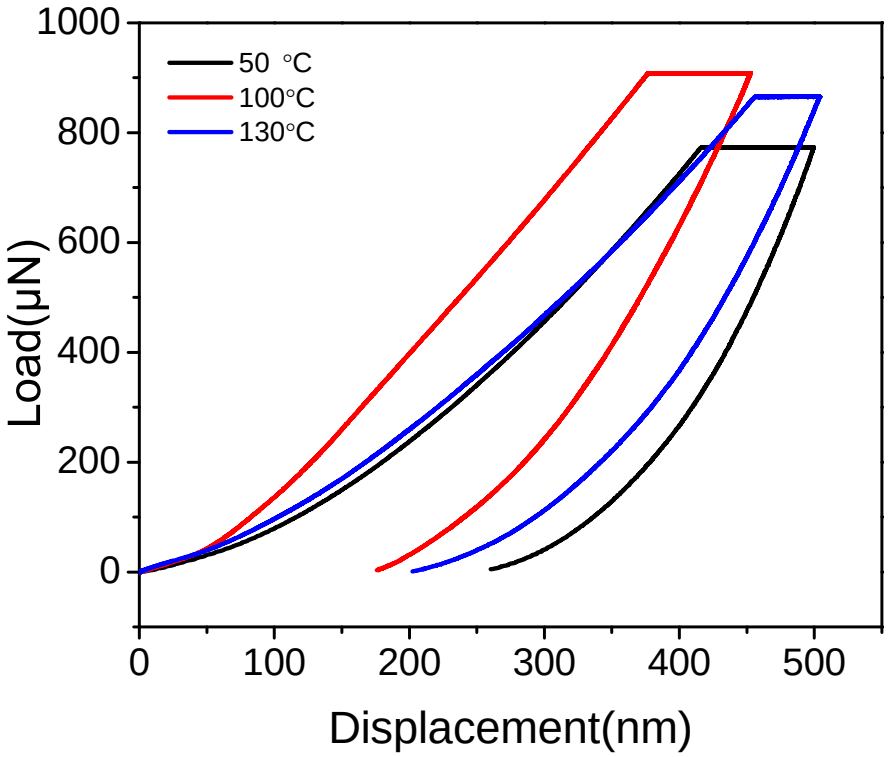


Figure S1: Load-Displacement plots of crosslinked-chitosan films measured at various temperatures as independent experiments. The thickness of the films is about 100 $\mu$m.

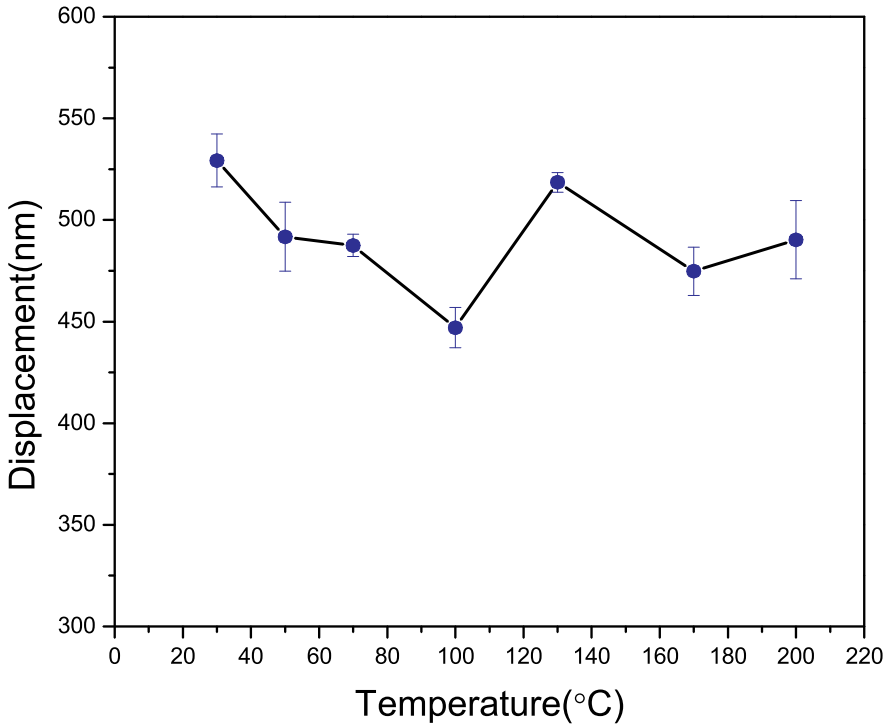


Figure S2: Maximum displacement of the indenter at the peak load at various temperatures. The thickness of the films is about 100 $\mu$m.

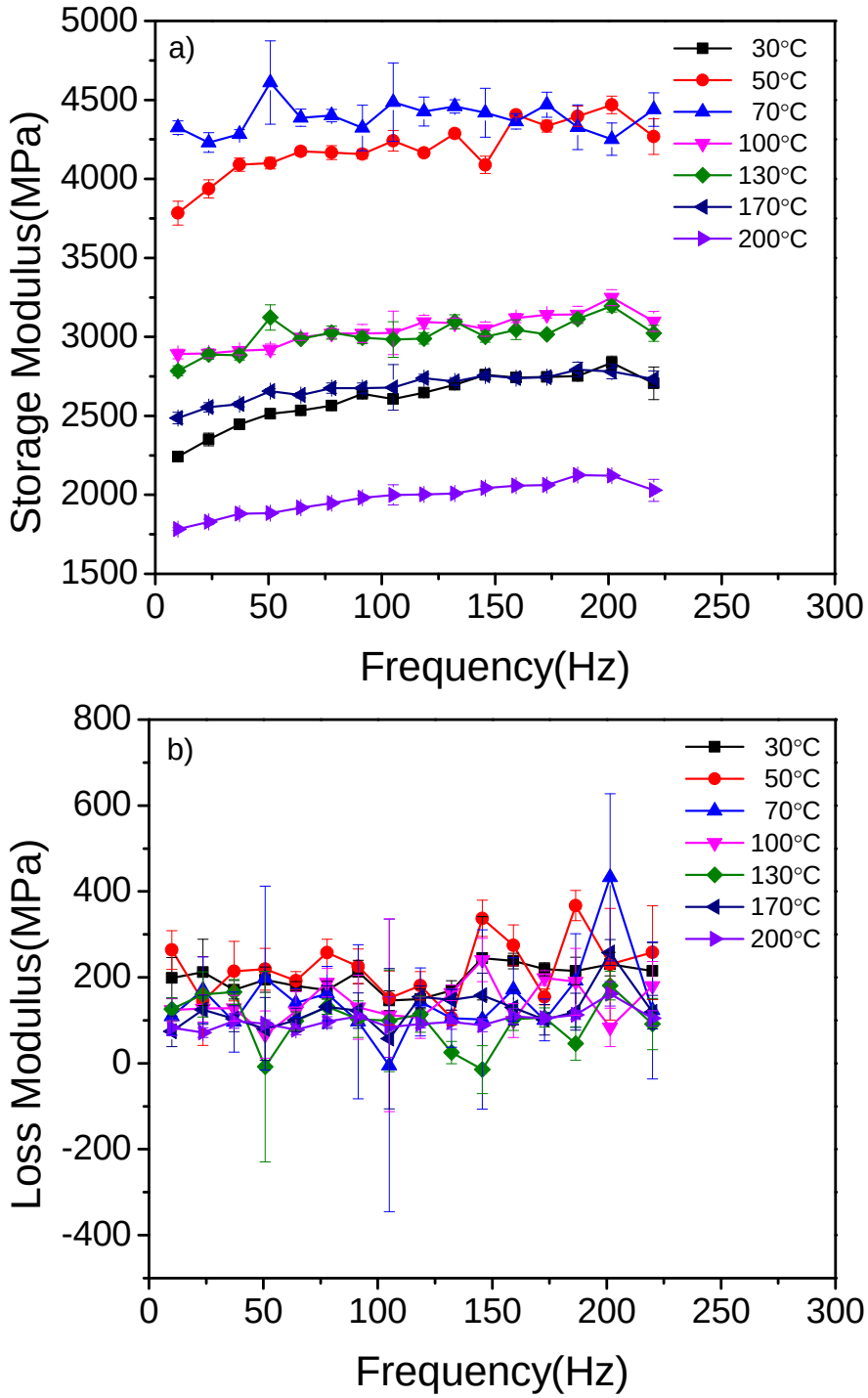


Figure S3: (a)Storage modulus obtained at different temperatures for frequency range of (10-210) Hz and (b) Loss modulus at different temperatures for frequency range of (10-210) Hz These are obtained from the nano DMA experiments.