

SUPPLEMENTARY INFORMATION

A study of hydrogel composites containing pH-responsive doubly crosslinked microgels

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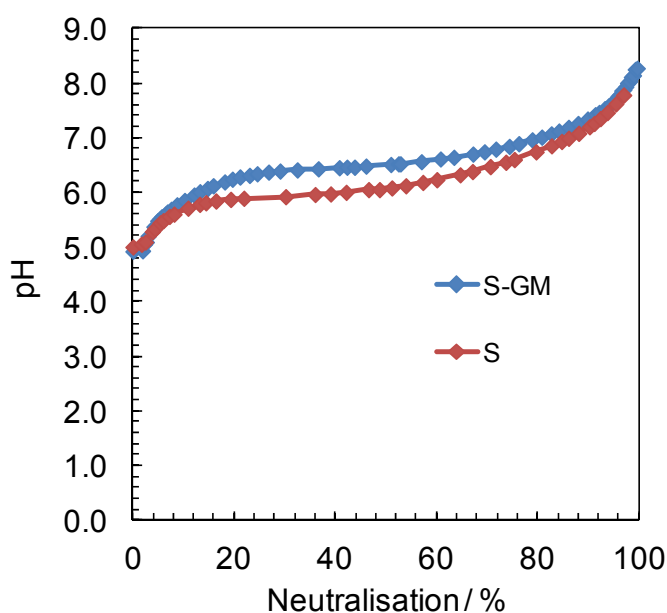


Fig. S1. Potentiometric titration data for S and S-GM microgels.

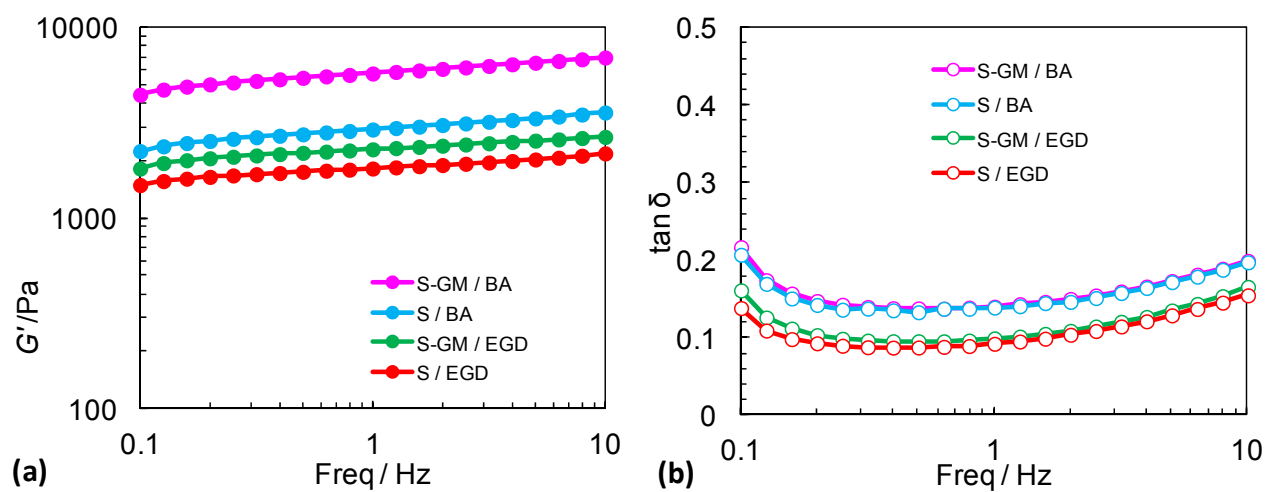


Fig. S2 Frequency sweep data for a range of S / X and S-GM / X soft particle glasses (physical gels).

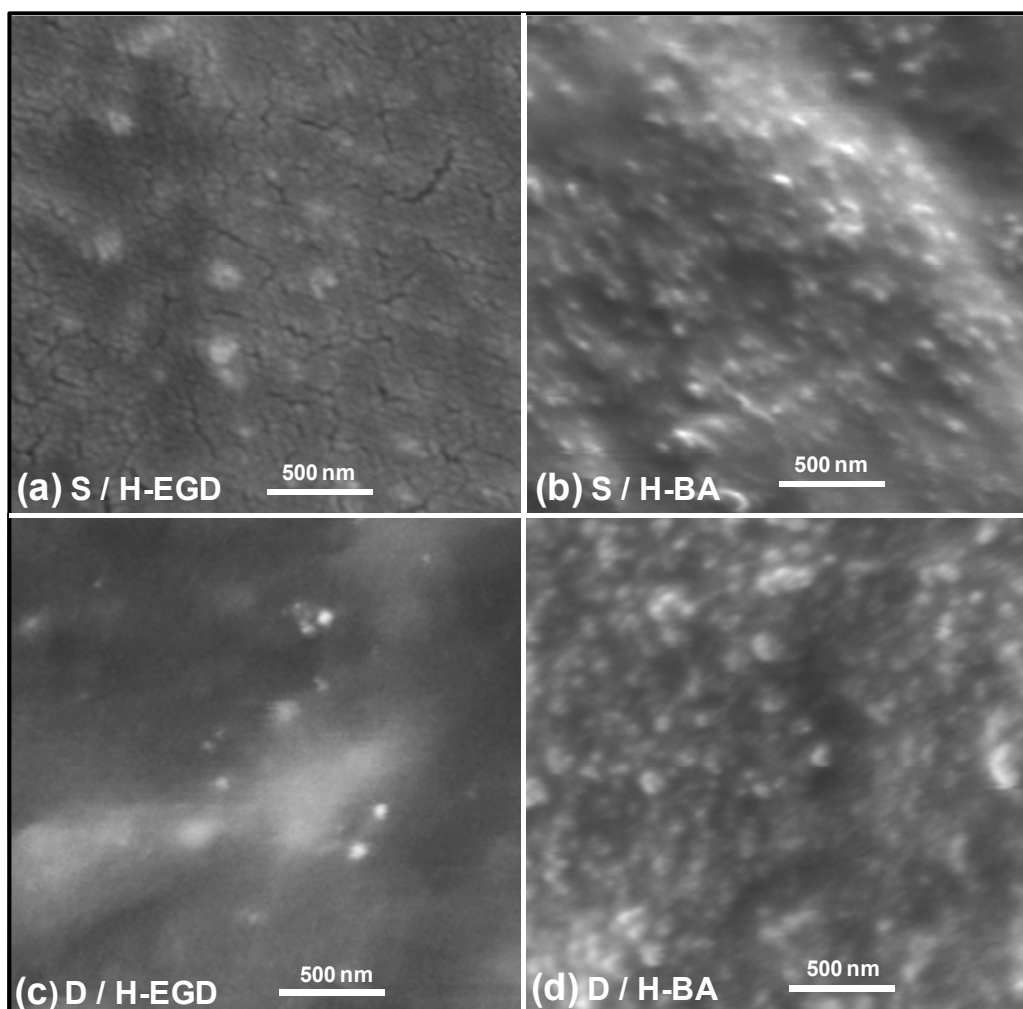


Fig. S3. Morphology of microgel / hydrogel composites. (a) – (d) show SEM images of freeze-dried surfaces of S / H-X and D / H-X (X = EGD and BA) composites.

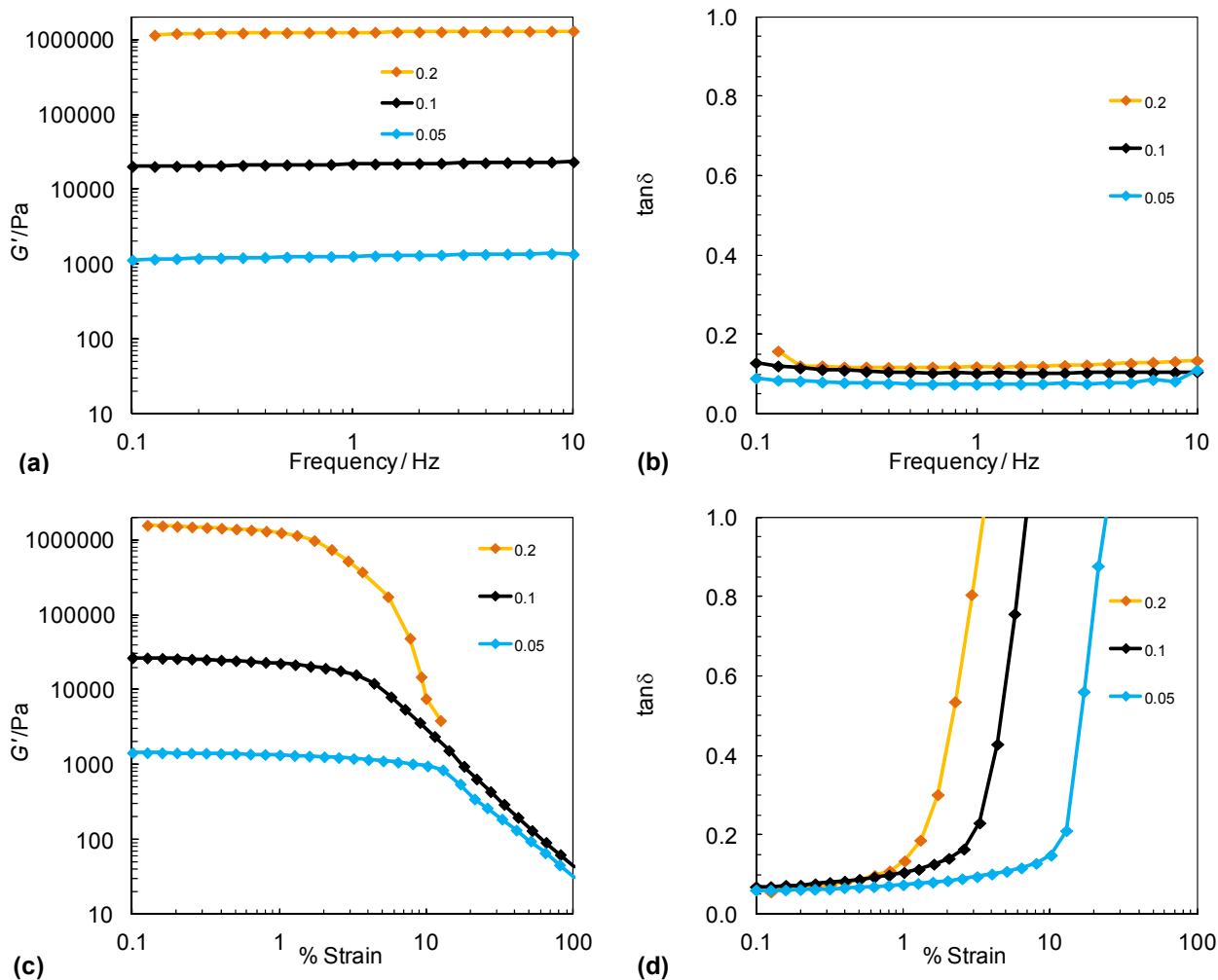


Fig. S4. Variation of G' and G'' with strain for H-BA hydrogels. Values for ϕ_0 used to prepare these H-BA hydrogels are shown.

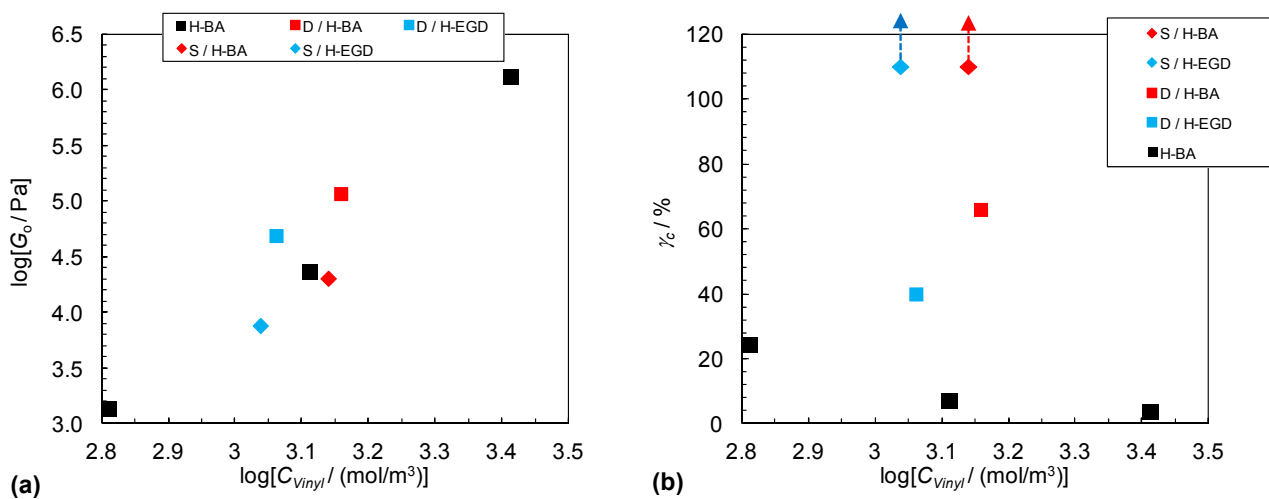


Fig. S5. Variation of (a) G_0 and (b) γ_c with total vinyl group concentration prior to crosslinking for the composites. The data were taken from Fig 4. The values for G_0 were the high frequency G' values (10 Hz). The values for γ_c were the strain values measured at $\tan \delta = 1.0$.

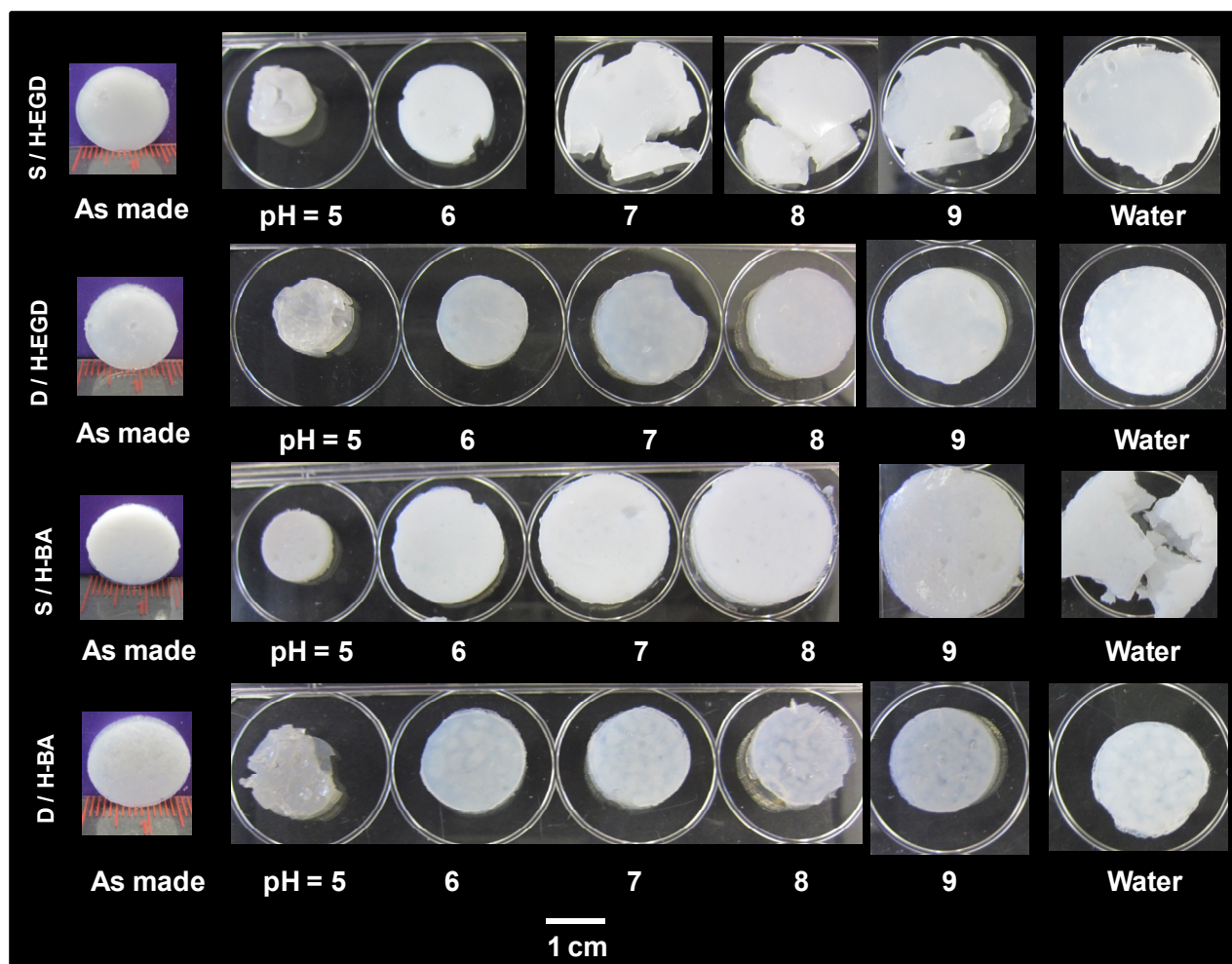


Fig. S6. Digital photographs of gels as made and after swelling at different pH values for 8 days. The pH of the water sample was 7.5.

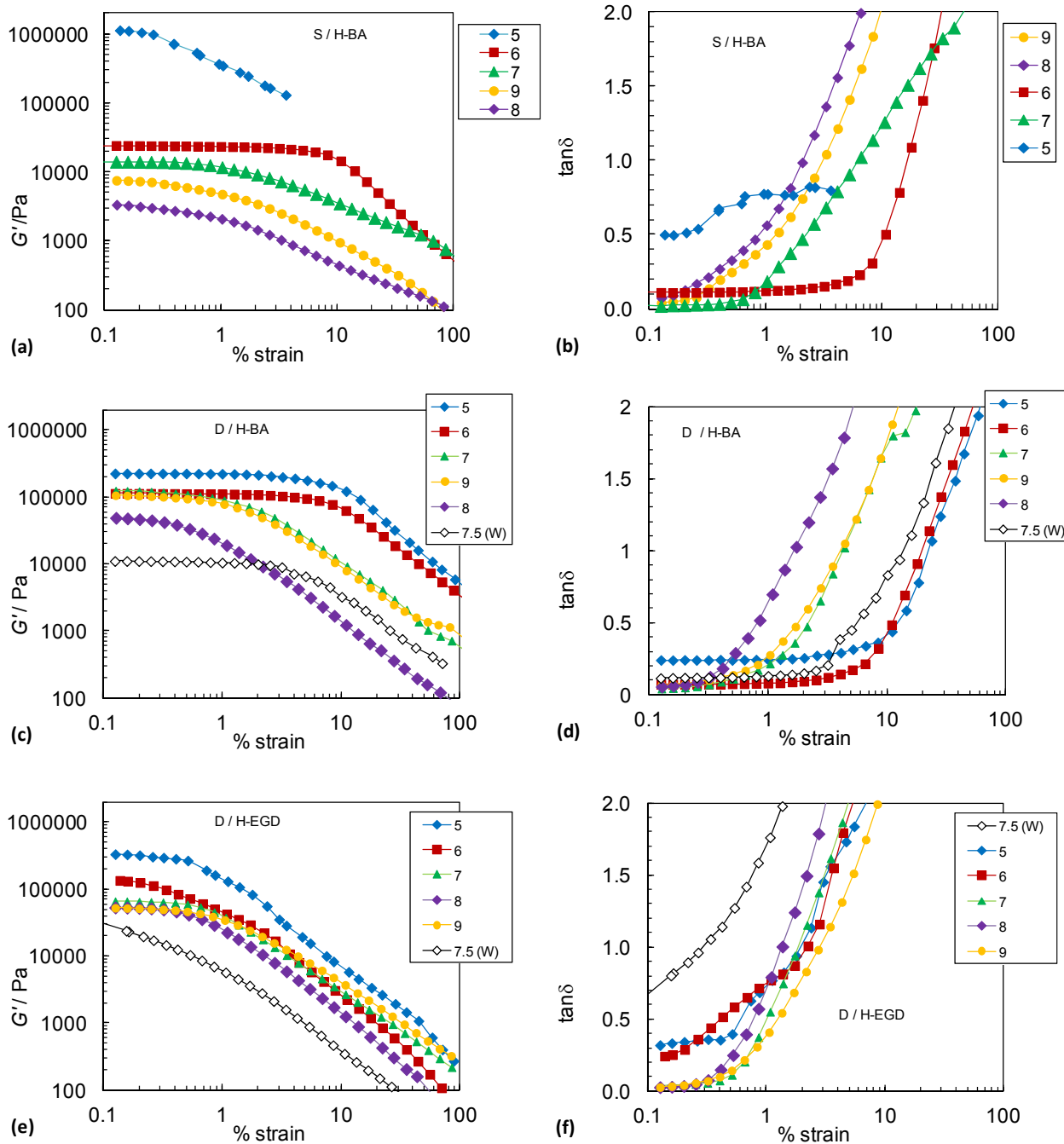


Fig. S7. Strain sweep data for S / H-BA ((a) and (b)) and D / H-EGD ((c) and (d)) measured at different pH values (shown in legends).

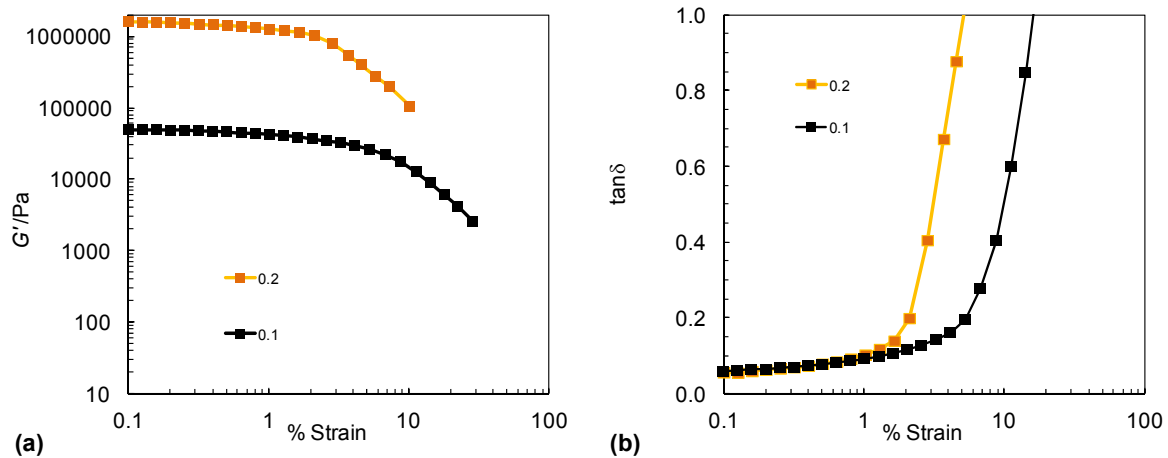


Fig. S8 Variation of G' and G'' with strain for H-BA hydrogels after soaking in pH = 7.4 buffer for 8 days. Values for ϕ_0 used to prepare these H-BA hydrogels are shown.