Electronic Supplementary Material (ESI) for Soft Matter.

Electronic Supporting Information

Acid-responsive fibrillation and urease assisted defibrillation of phenylalanine: transient supramolecular hydrogel

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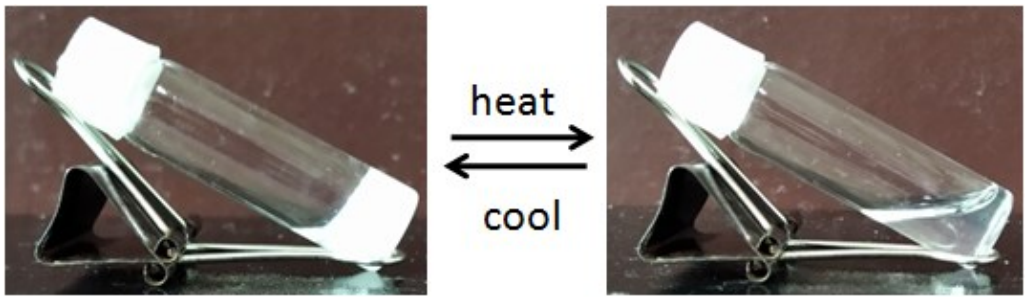

Fig. S1. Gel-sol transition of **ZF** in water by heating-cooling method.

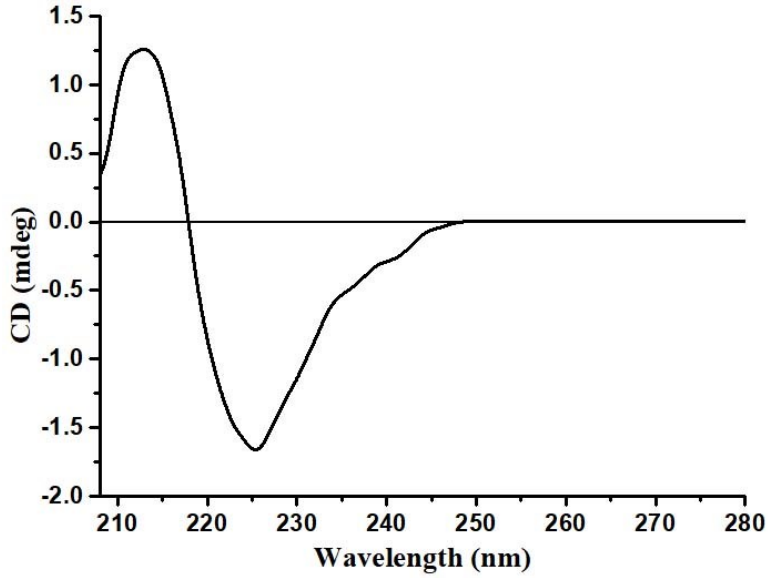

Fig. S2. CD spectra of **ZF** in water.

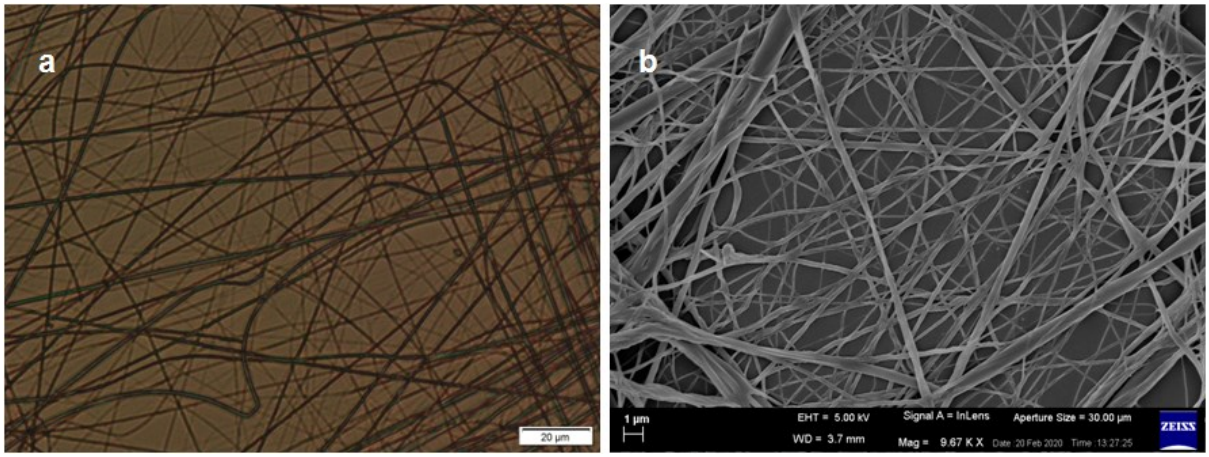

Fig. S3. (a) Optical microscopic image shows the existence of densely cross-link needle-like fibres in the xerogel of **ZF**. (b) FE-SEM image shows the entangled fibres in the **ZF** xerogel.

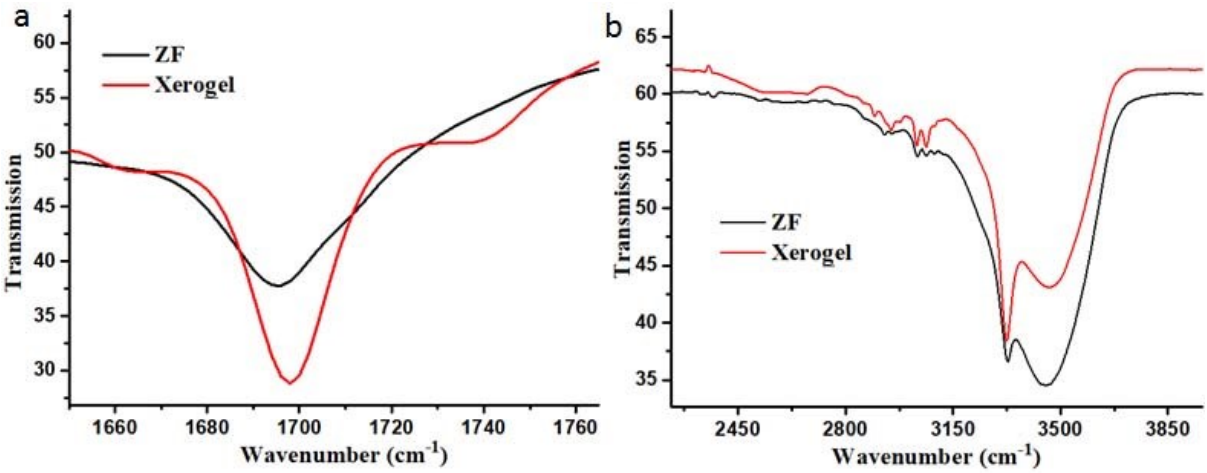

Fig. S4. FT-IR spectra of ZF and ZF xerogel for (a) 1650-1760 cm^{-1} and (b) 2100-3850 cm^{-1}.

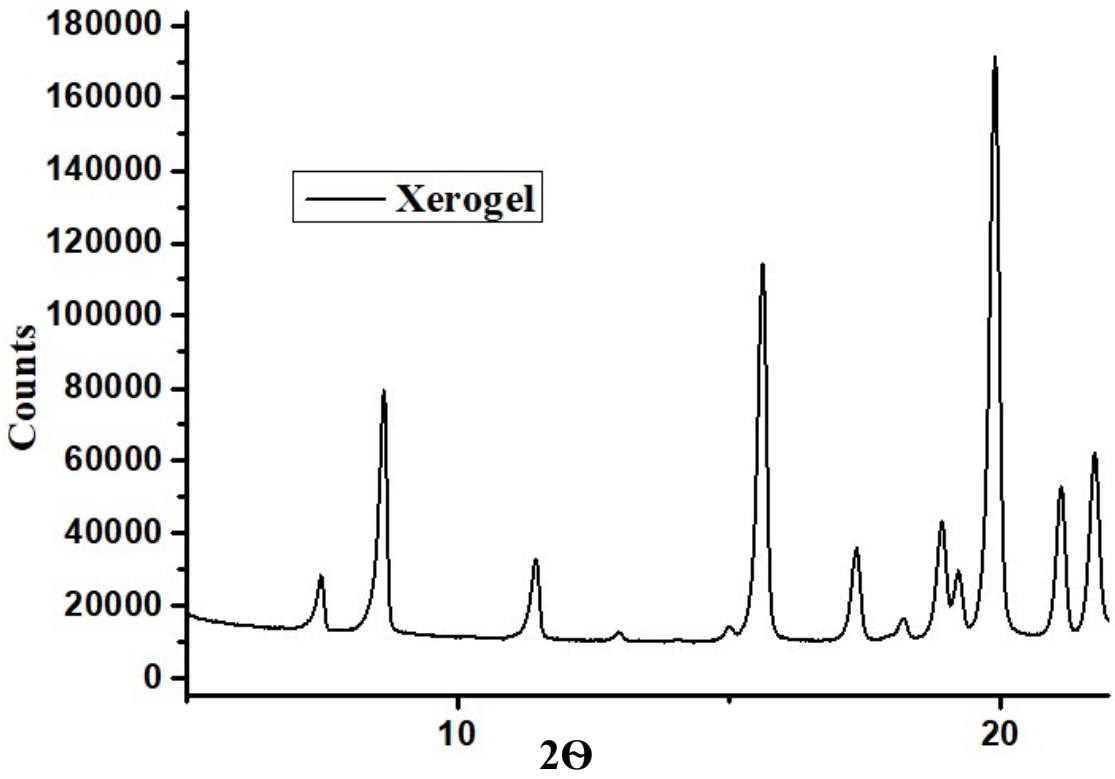

Fig. S5. WAXS spectra of **ZF** xerogel.

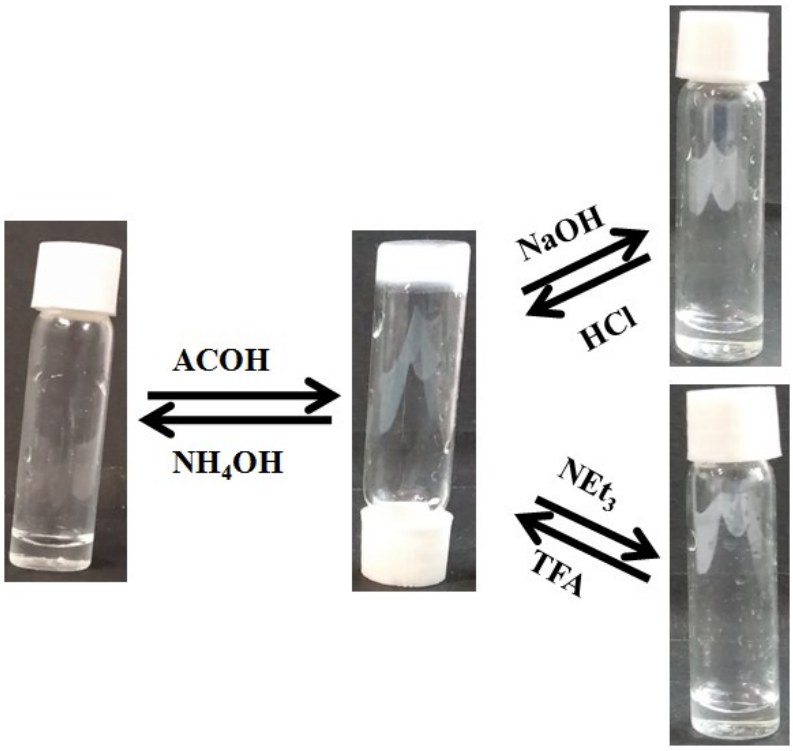

Fig. S6. pH reversibility of the hydrogel.

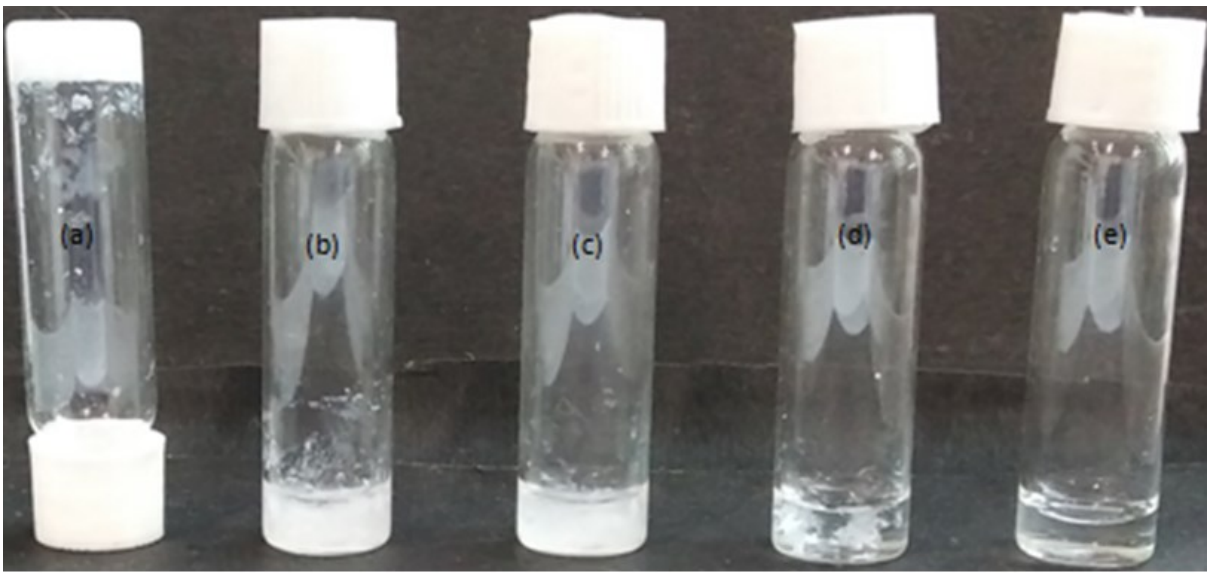

Fig. S7: pH dependence of the gel: From left to right, (a) pH=3.33, (b) pH=3.5, (c) pH=3.7, (d) pH=3.98, (e) pH=4.2. Conditions: **ZF** 2mg/mL, pH adjusted using 0.1M HCl and 1M NaOH.

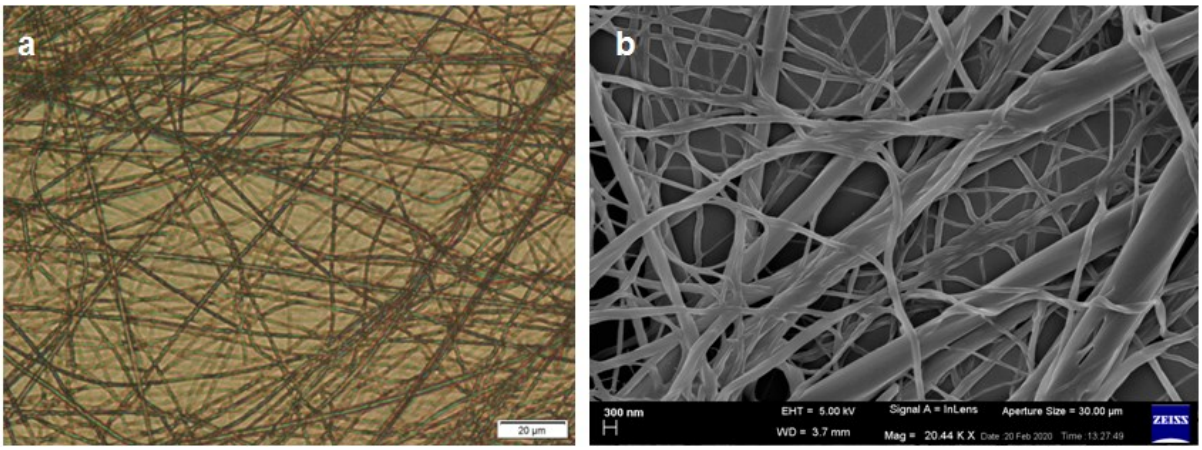

Fig. S8. (a) Optical microscopic image shows the densely cross-link needle-like fibres in the pH triggered gel. (b) FE-SEM image shows the entangled fibres in the pH triggered gel.

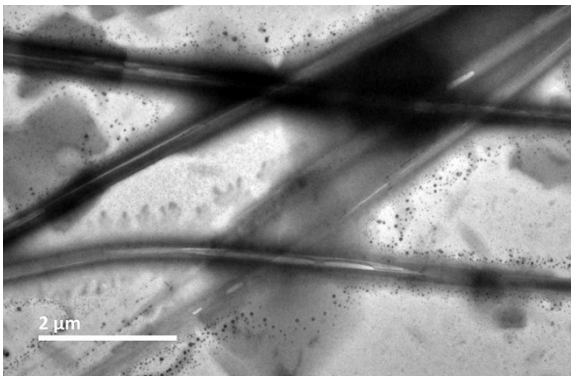

Fig. S9. TEM image shows the entangled fibres of **ZF** xerogel.

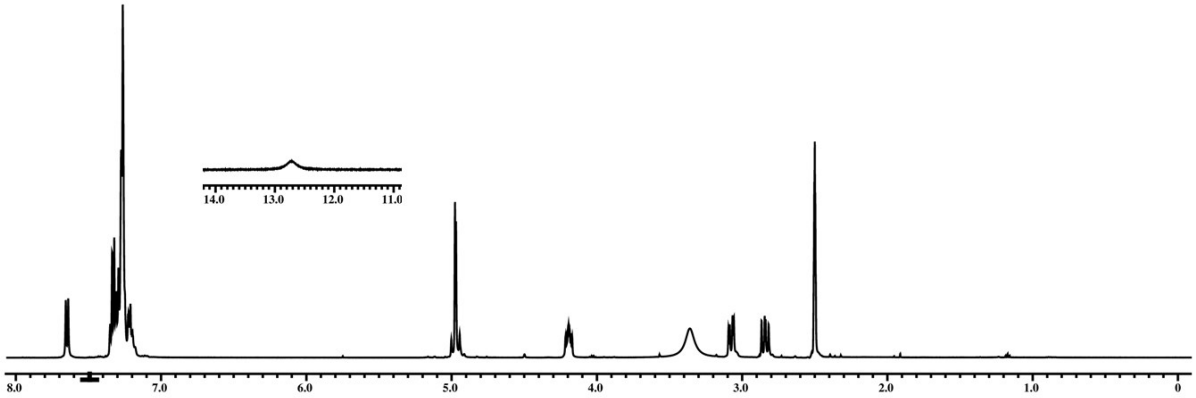

Fig. S10. ^{1}H NMR (500 MHz, DMSO-d_6) spectrum of ZF.

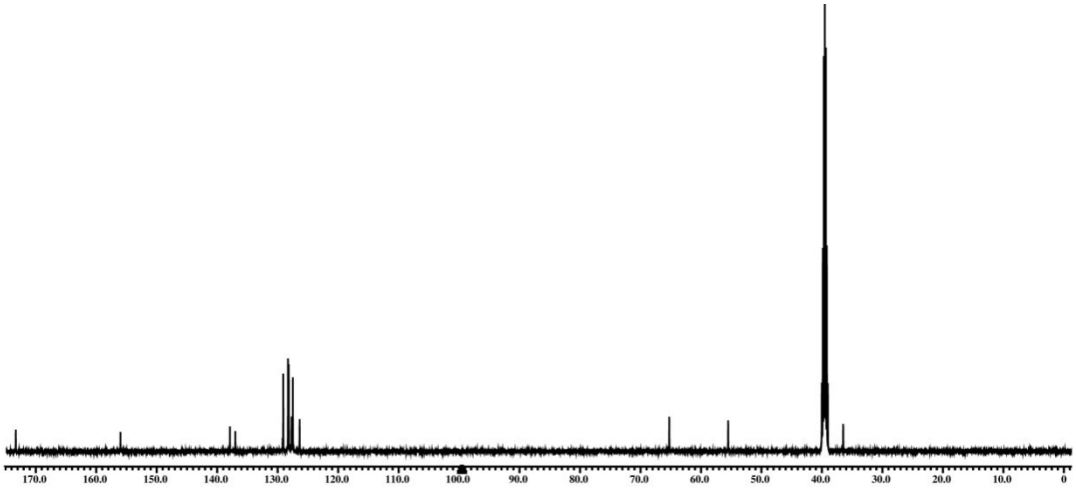

Fig. S11. ^{13}C NMR (125 MHz, DMSO-d_6) spectrum of ZF.

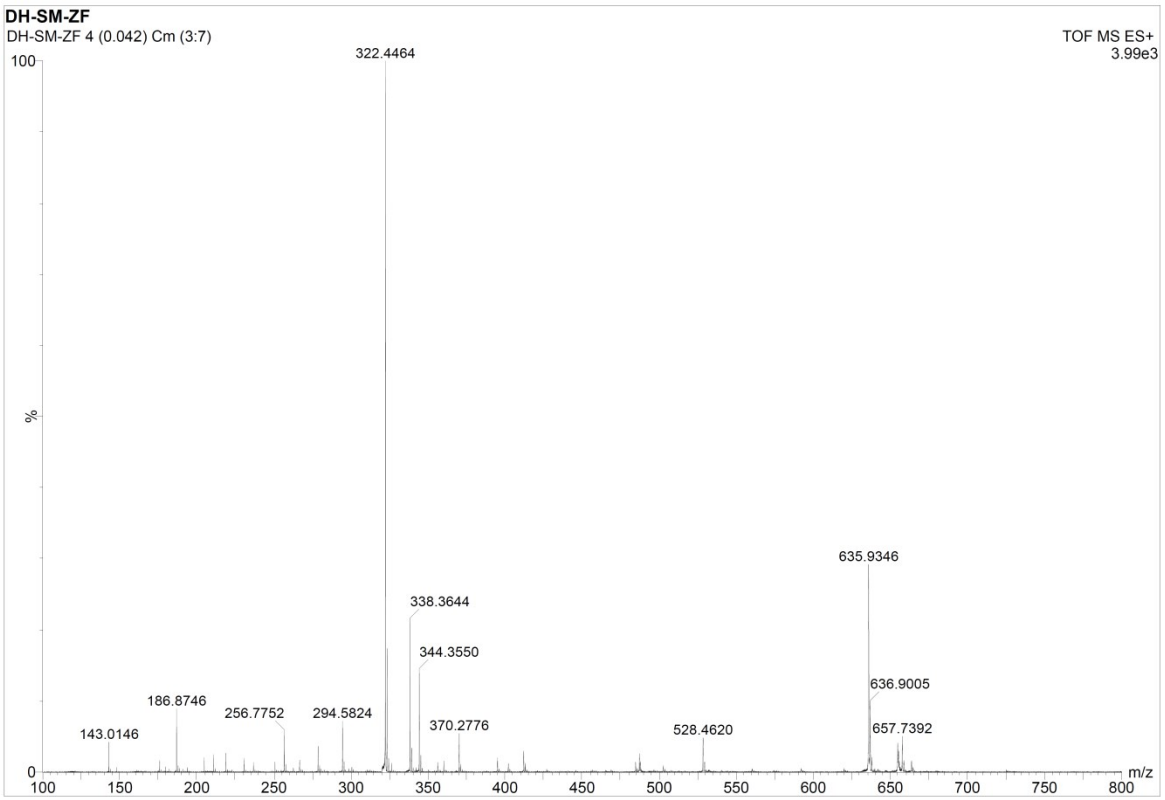

Fig. S12. TOF-MS(m/z) calculated of ZF $C_{17}H_{17}NO_4$ for $[M+Na]^+$:322.44 and $[2M+K]^+$:636.90.