

## Supporting Information

### Luminescent and self-healing hybrid ionotropic hydrogel beads of ammonium meta vanadate and chitosan: Promising biomaterial as antimicrobial agent, efficient dye adsorbent and ascorbic acid sensor

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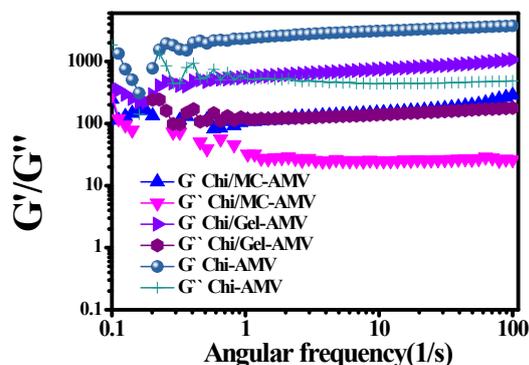


Figure 1S: Variation of  $G'/G''$  with angular frequency of different hydrogel beads.

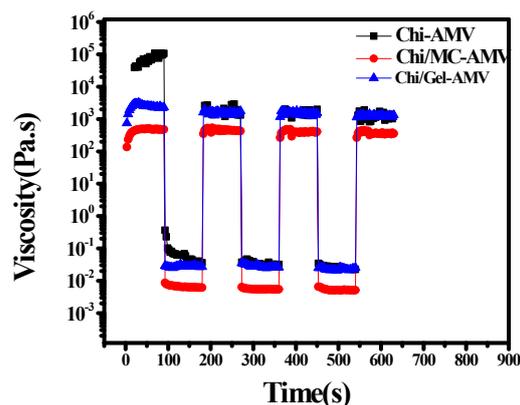
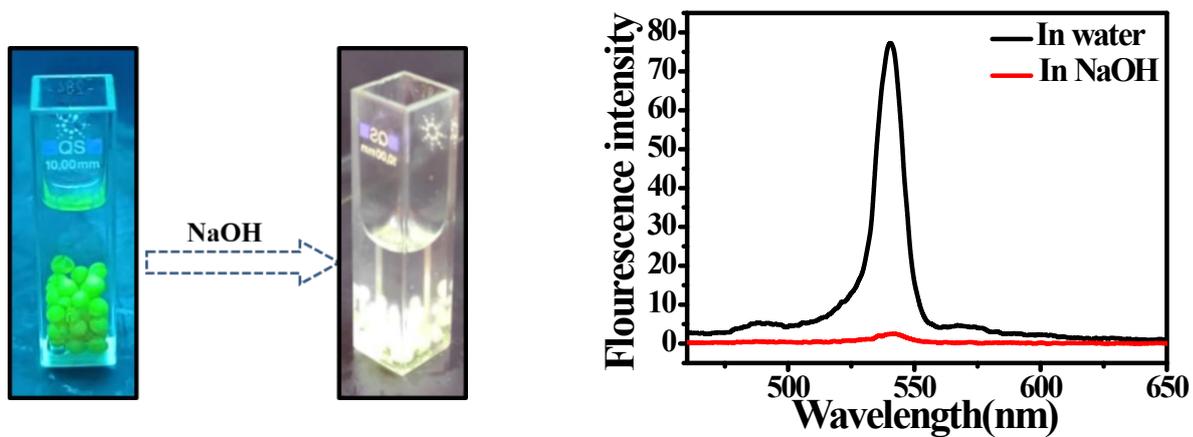
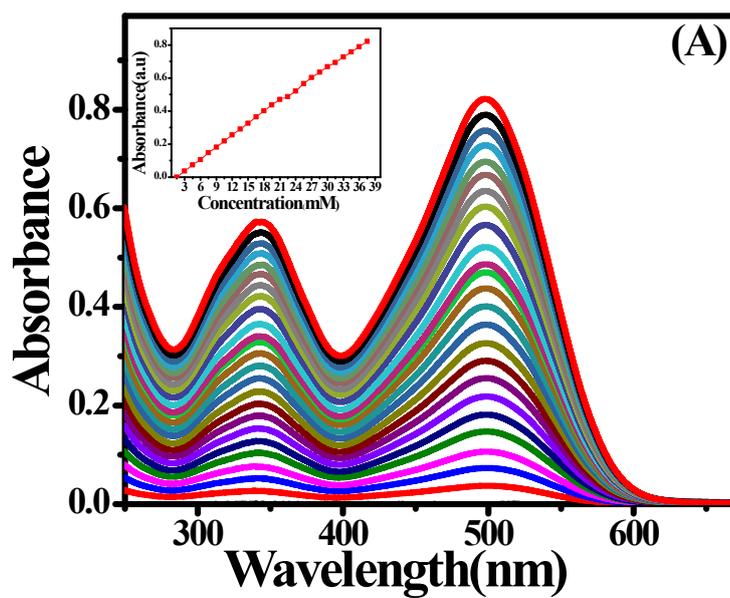


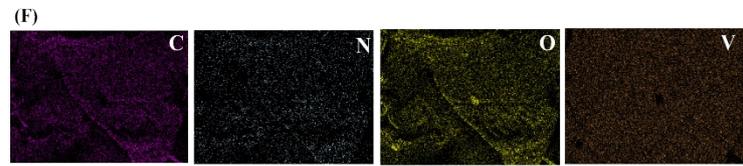
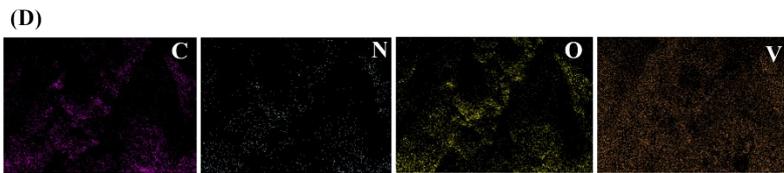
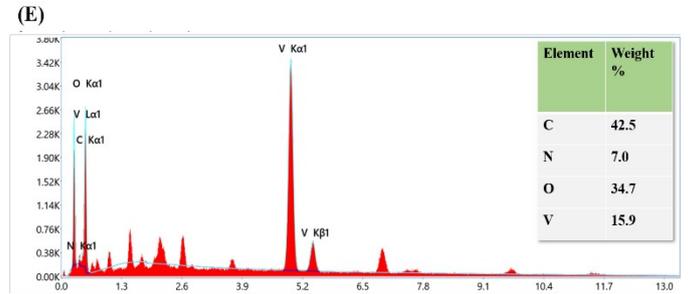
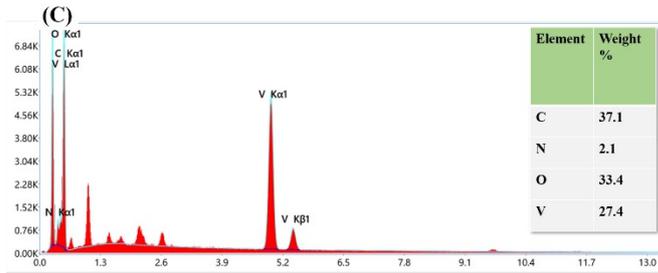
Figure 2S: Variation of viscosity with time at two shear stress values.



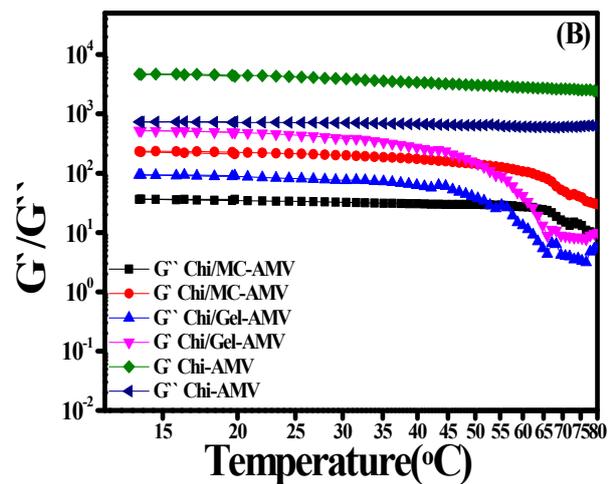
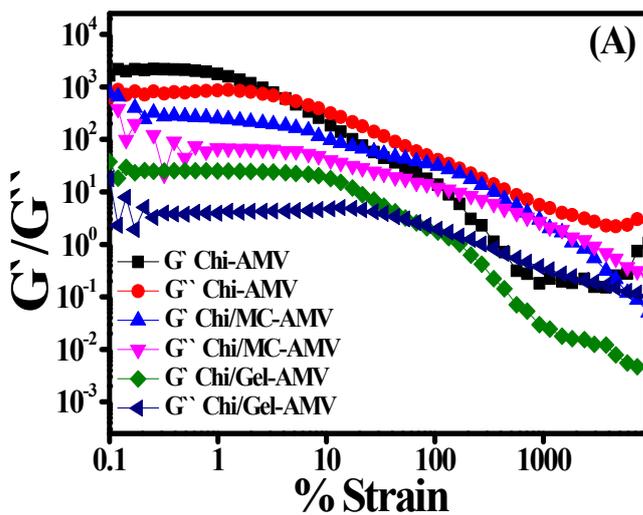
**Figure 3S.** Effect of sodium hydroxide on the fluorescence intensity of hydrogel beads.



**Figure 4S(A)** UV spectra of Congo red with increasing concentration of Congo red and inset shows the variation of absorbance with concentration of Congo red at 25°C.



**Figure 5S:** (C) Energy-dispersive X-ray spectroscopy (EDS) spectra of Chi/Gel-AMV. (D) (EDX) elemental mapping of Chi/Gel-AMV hydrogel beads (E) Energy-dispersive X-ray spectroscopy (EDS) spectra of Chi/MC-AMV (F) (EDX) elemental mapping of Chi/MC-AMV hydrogel beads.



**Figure 6S:** Variation of  $G'/G''$  with (A) %Strain and (B) Temperature.

