

Supplementary Information

Non-Covalently Cross-Linked Self-healing Hydrogel for Drug Delivery: Characterization, Mechanical Strength, and Anti-Cancer Potential

Sheetal Jaiswal^a, Sandeep Kumar^b, Paramjeet Yadav^a, Krishtan Pal^a, Shere Afgan^a, Arvind Acharya^b, Ravi Prakash^c, Pralay Maiti^c and Rajesh kumar^{a*}

^a Department of Chemistry, Institute of Science, Banaras Hindu University, Varanasi-221005, India, E-mail: orajesh@bhu.ac.in

^b Department of Zoology, Institute of Science, Banaras Hindu University, Varanasi-221005, India

^c School of Materials Science and Technology, Indian Institute of Technology (BHU), Varanasi-221005,

† Footnotes relating to the title and/or authors should appear here.

1. XPS Spectrum of hydrogel

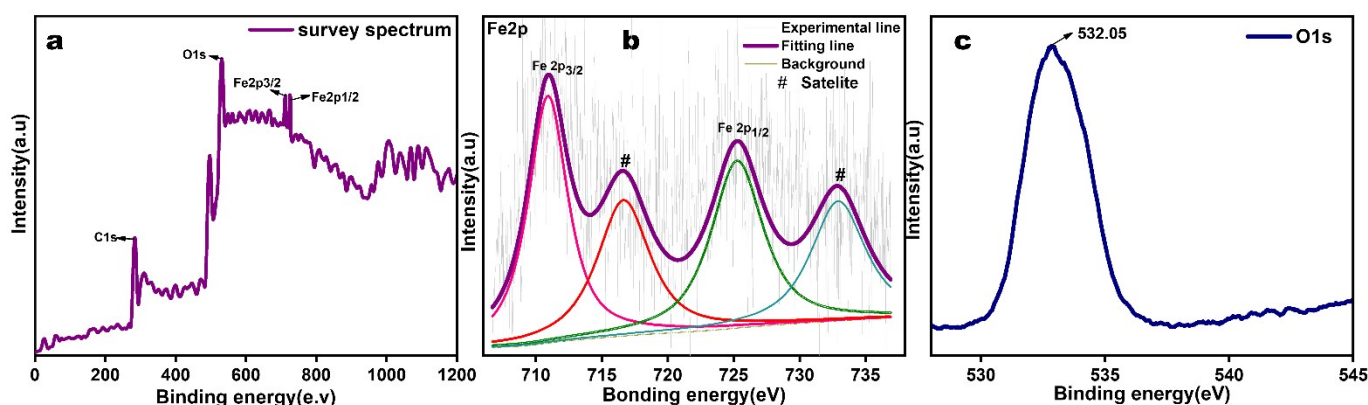


Figure S1. XPS spectra of GGS-PAA-Fe³⁺ hydrogel (a) Survey spectrum (b) Fe2p (c) O1s.

2. Self-healing study of hydrogel

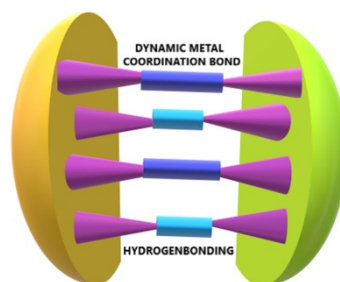


Figure S2. Mechanism of self-healing

3. Surface morphology study of hydrogel

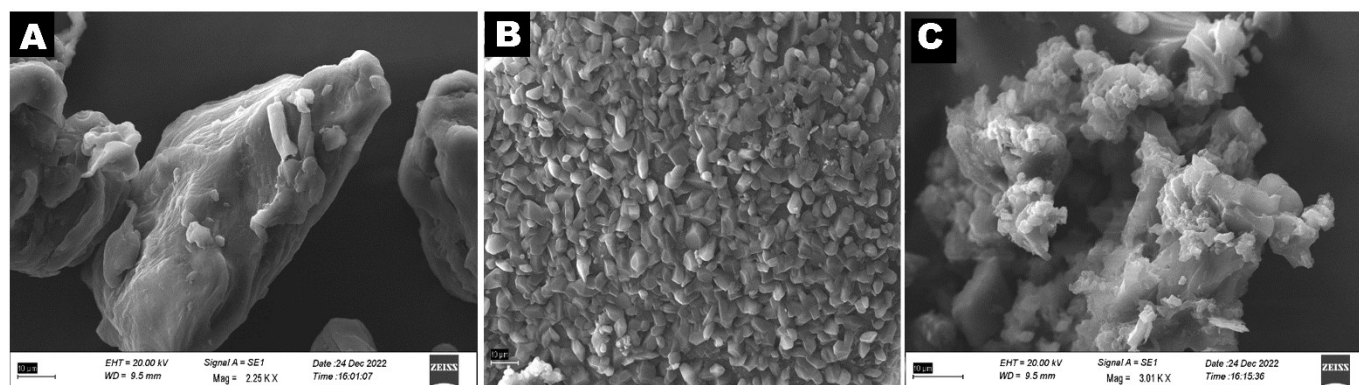
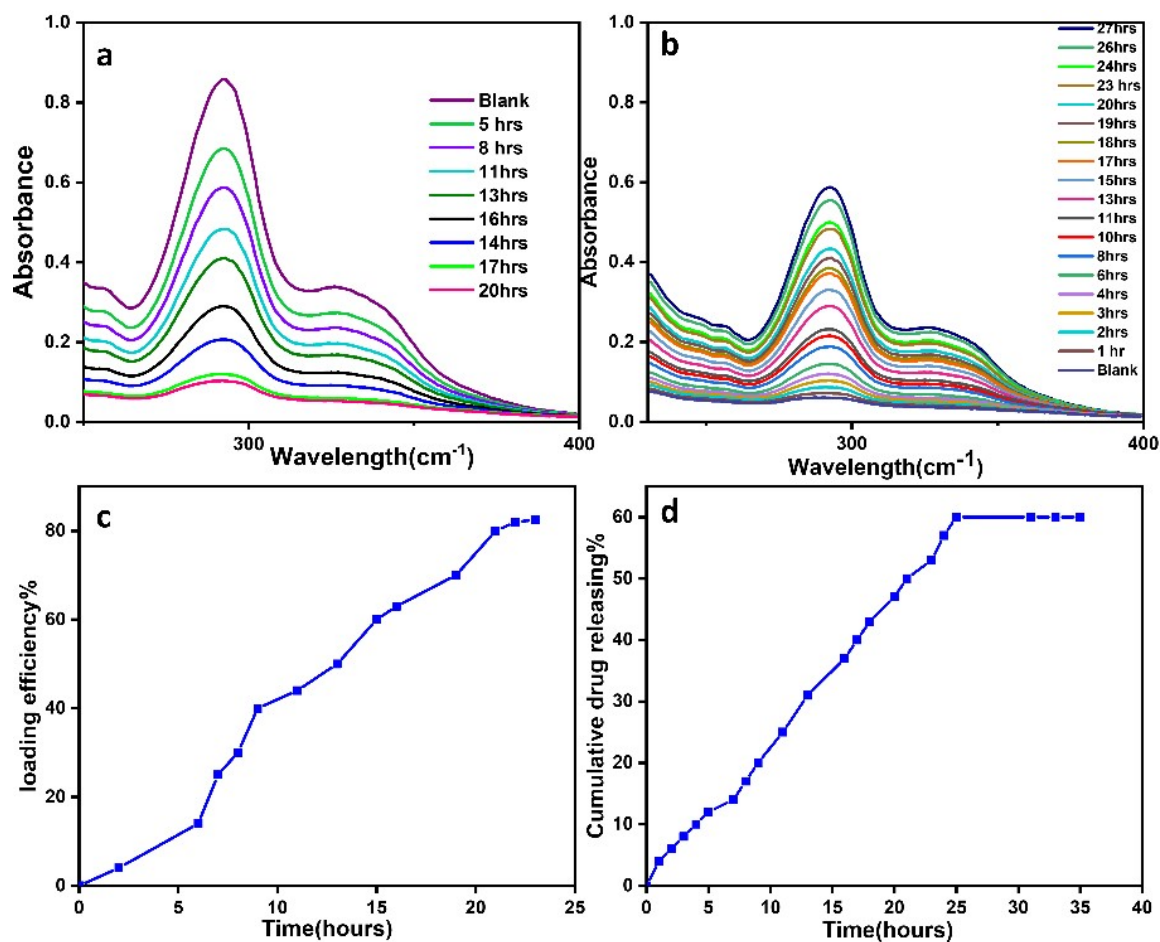


Figure S3. SEM images of (A) GG (B) GGS (C) PAA

4. Drug delivery study

Figure S4. Drug loading and releasing efficiency of GGS-PAA-Fe³⁺ hydrogel.