

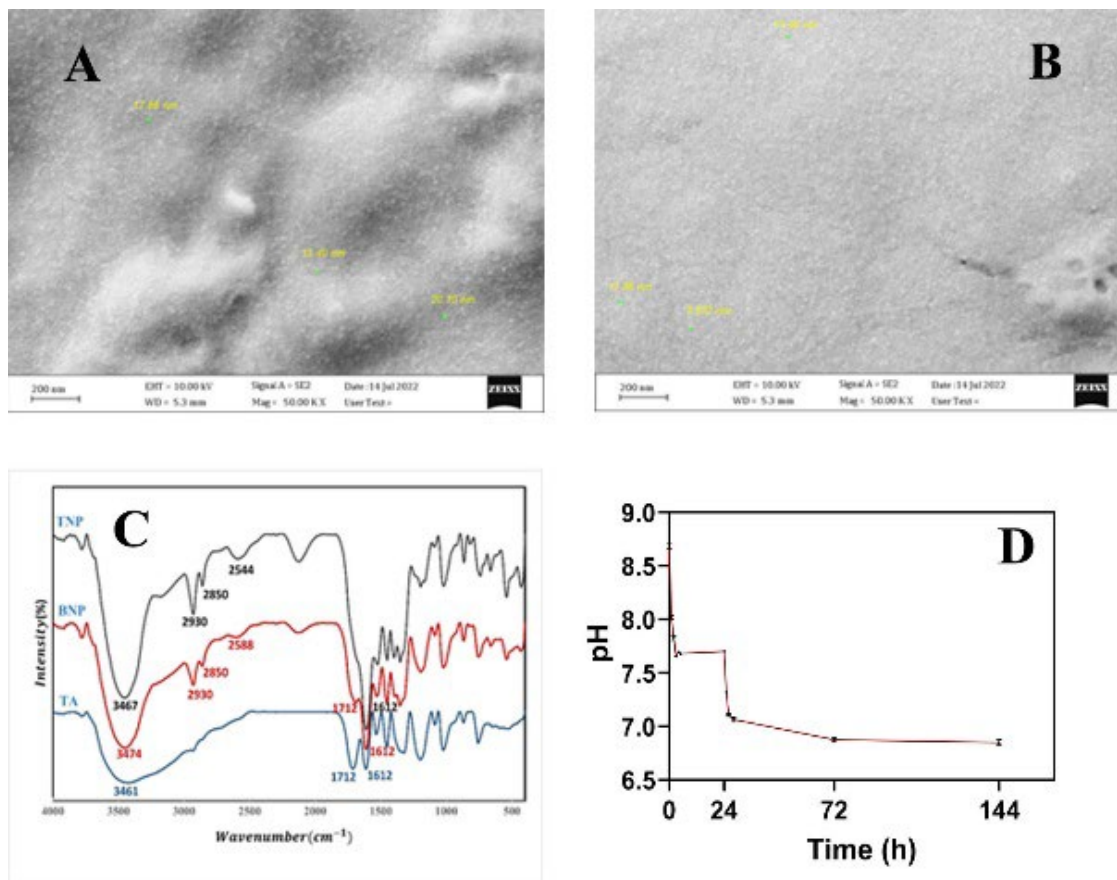


Figure S1. A,B) FSEM images of nanogels the scale bar represents 200nm, C) FTIR graphs of tannic acid powder (TA), HA nanogel as blank (BNP), TA-loaded HA nanogel (TNP), D) pH changes due to HA, TA Release, and data are presented as mean $\pm$ SD (n = 3).

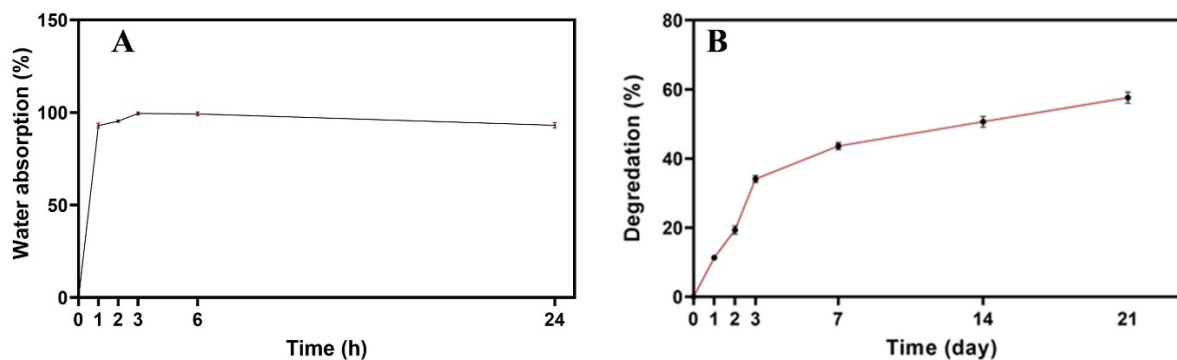


Figure S2. A) Diagram of water absorption capacity in Carp fish samples of FADMs. B) Diagram of degradation percent in Carp fish samples of FADMs, Data are expressed as mean $\pm$ SD (n = 3).