Electronic Supplementary Information

Antibacterial, antioxidant and injectable hydrogels constructed using CuS and curcumin co-loaded micelles for NIR-enhanced infected wound healing

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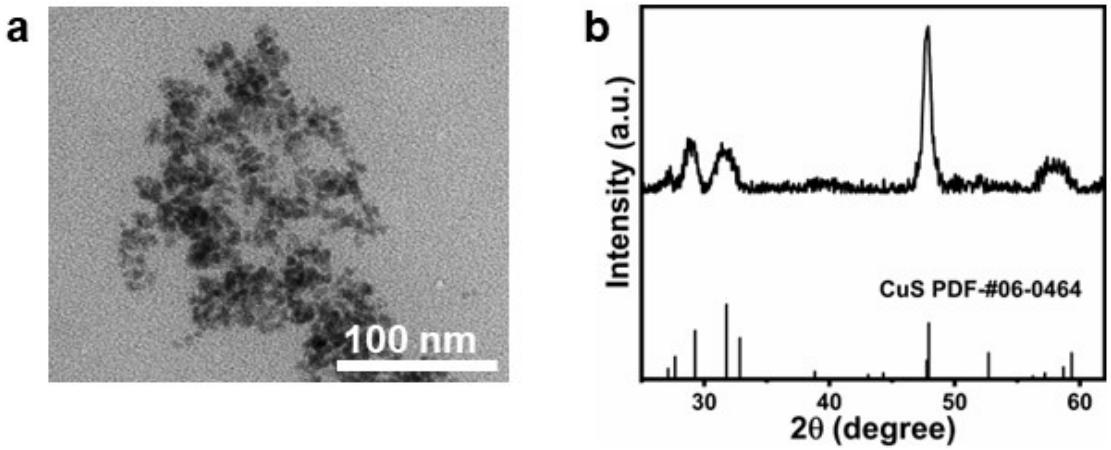
Fig. S1 (a) The TEM image and (b) X-ray diffraction pattern of the hydrophobic CuS



NPs.

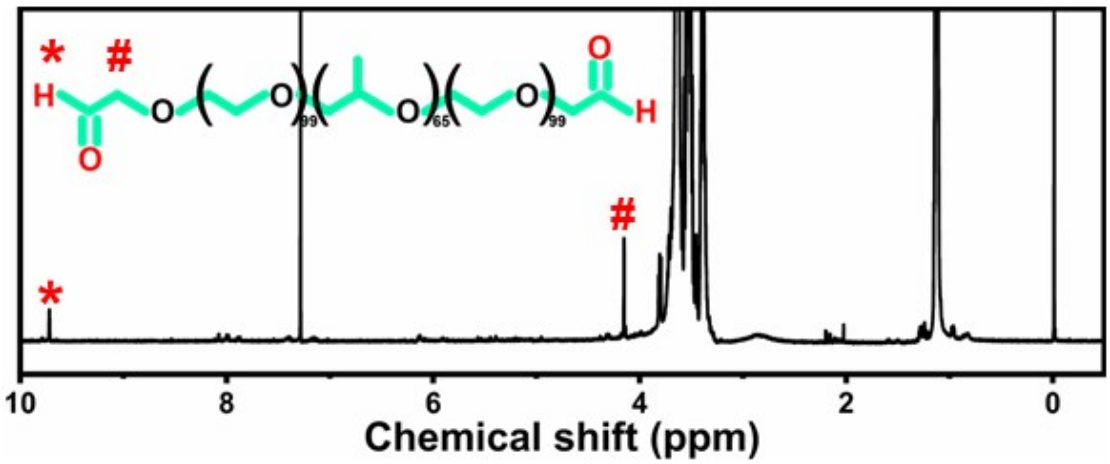


Fig. S2 The ^{1}H NMR spectrum of the aldehyde-terminated F127.

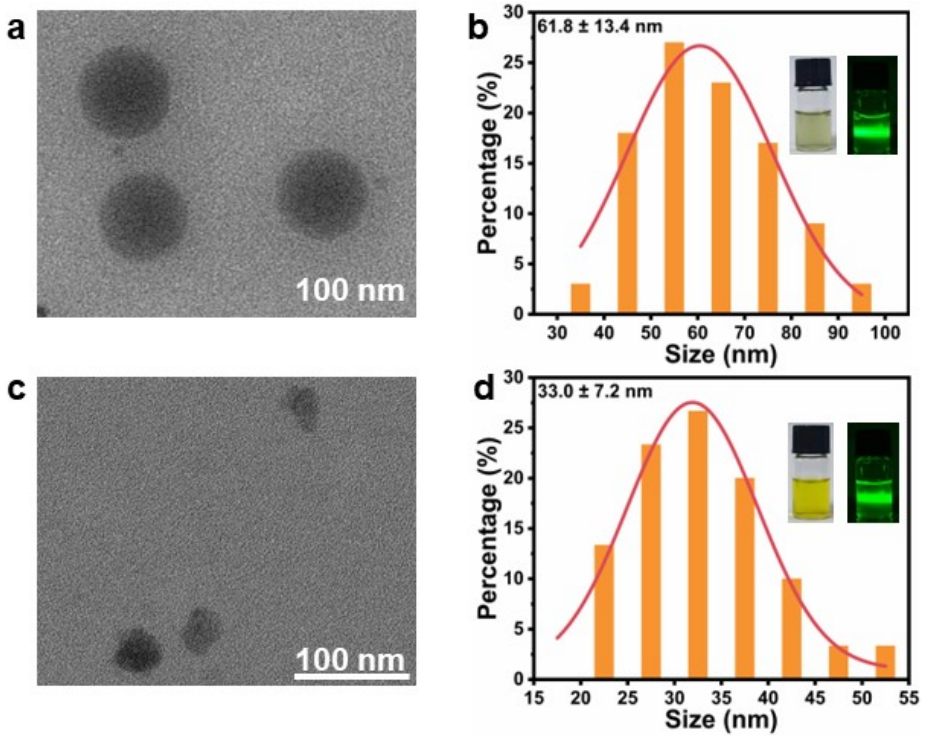


Fig. S3 (a) The TEM image and (b) particle size distribution of F127-CHO@CuS micelles; (c) the TEM image and (d) particle size distribution of F127-CHO@cur

micelles. Inset: photograph of the corresponding micelles aqueous solution and the Tyndall effect.

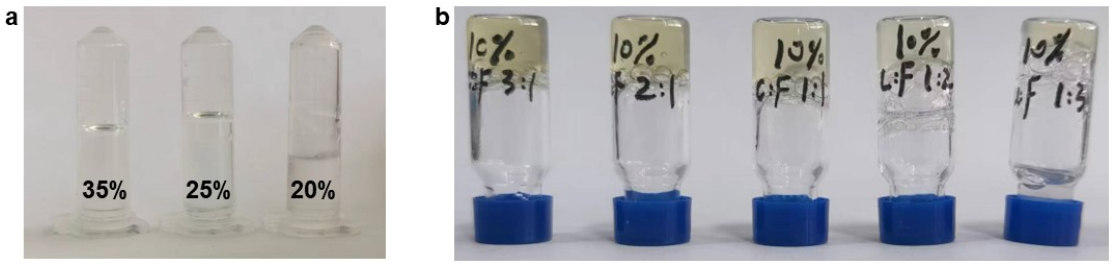


Fig. S4 (a) The photographs of F127-CHO with different concentration, showing spontaneous gel formation with concentration over 25%; (b) the gelation phenomena after mixing carboxymethyl chitosan with F127-CHO at different volume ratios (left to right: 3:1, 2:1, 1:1, 1:2, 1:3).

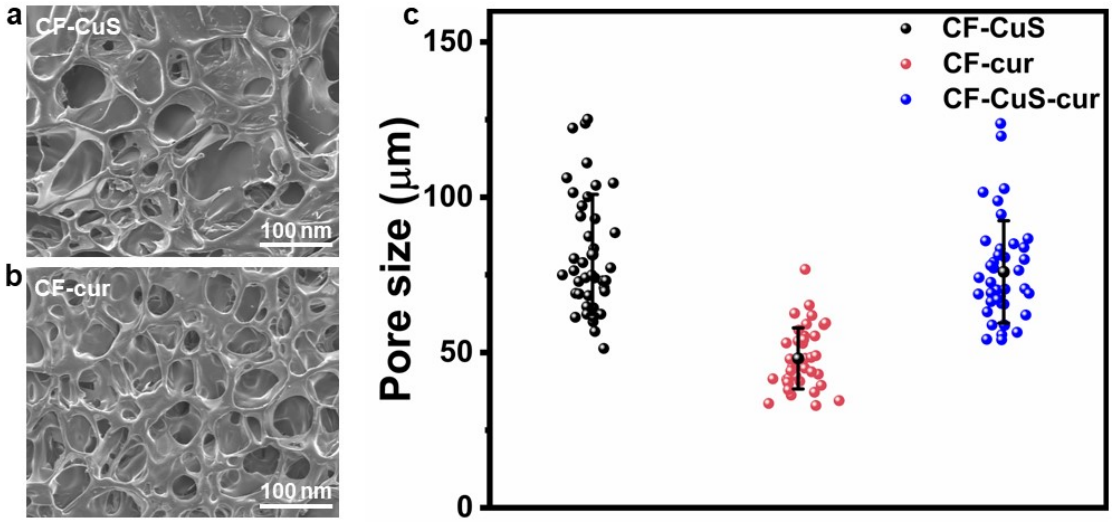


Fig. S5 The SEM images of (a) CF-CuS hydrogel, (b) CF-cur hydrogel, and (c) the corresponding hydrogel pore size analysis.

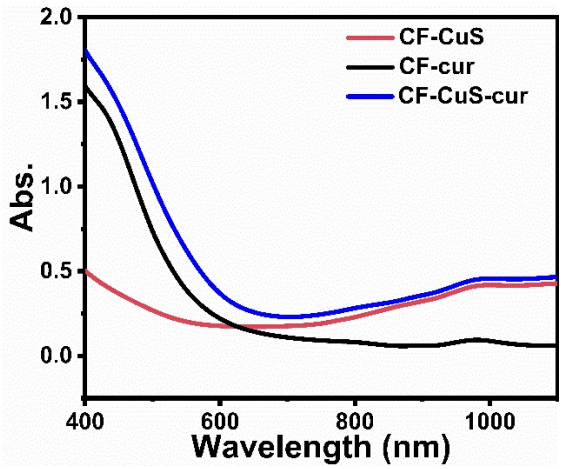


Fig. S6 The respective UV-vis-NIR spectra of CF-CuS, CF-cur, and CF-CuS-cur hydrogels.

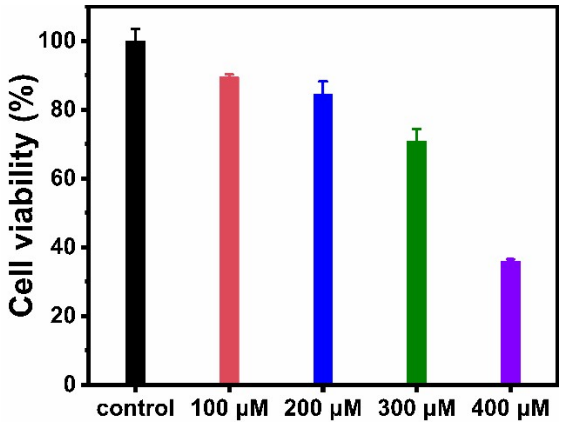


Fig. S7 The cell viability of HUVECs that were cultured with different concentrations of H_2O_2.

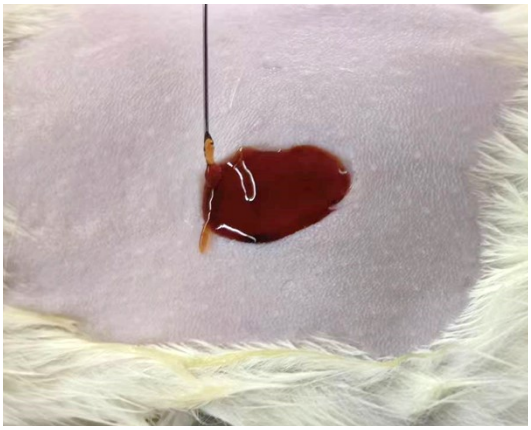


Fig. S8 The application of CF-CuS-cur hydrogel on infected wound by injection.