

Supporting Information

Electrogelated drug-embedded Silk/Gelatin/rGO Degradable Electrode for Nerve Anti-inflammatory Applications

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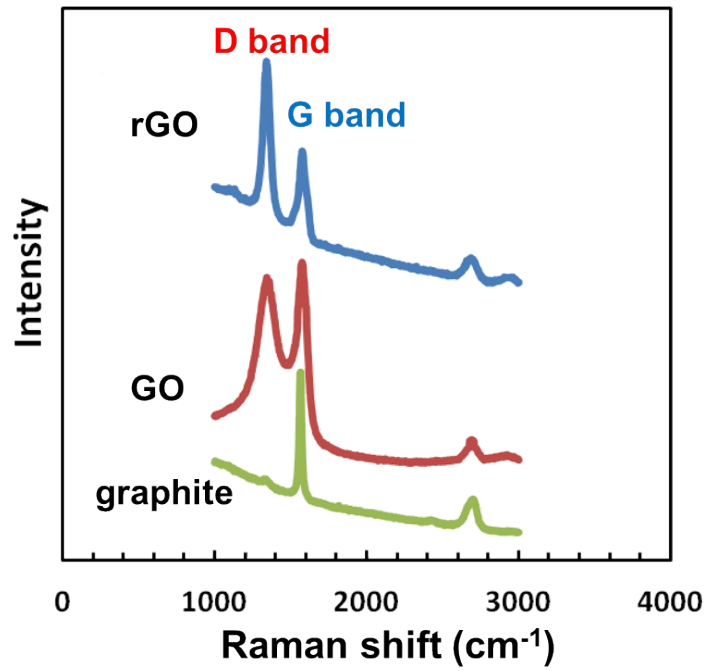


Figure S1. Raman spectra of graphite, GO and the rGO.

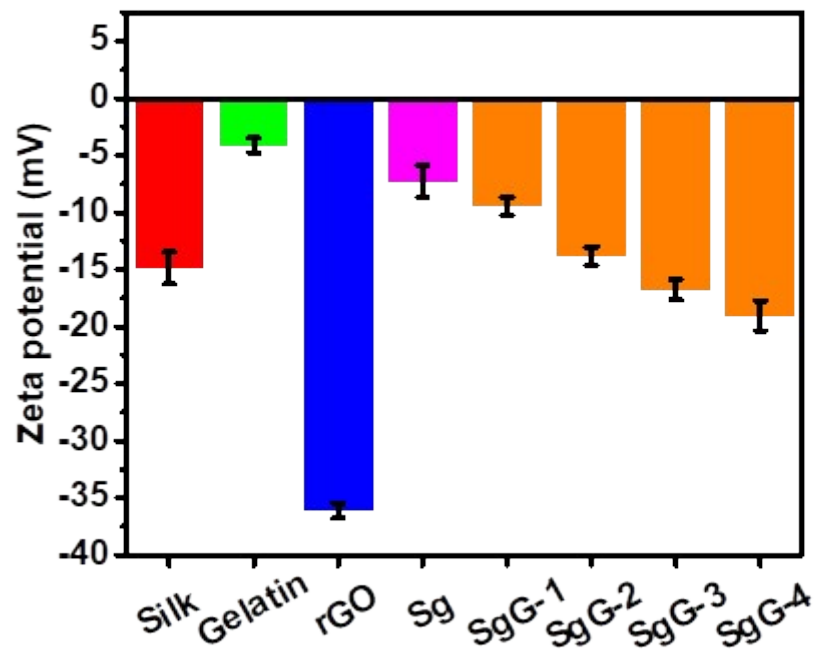


Figure S2. Zeta potentials of silk, gelatin, rGO, silk/gelatin (Sg) and different mass ratio of silk/gelatin/rGO (SgG) composite at pH=10.

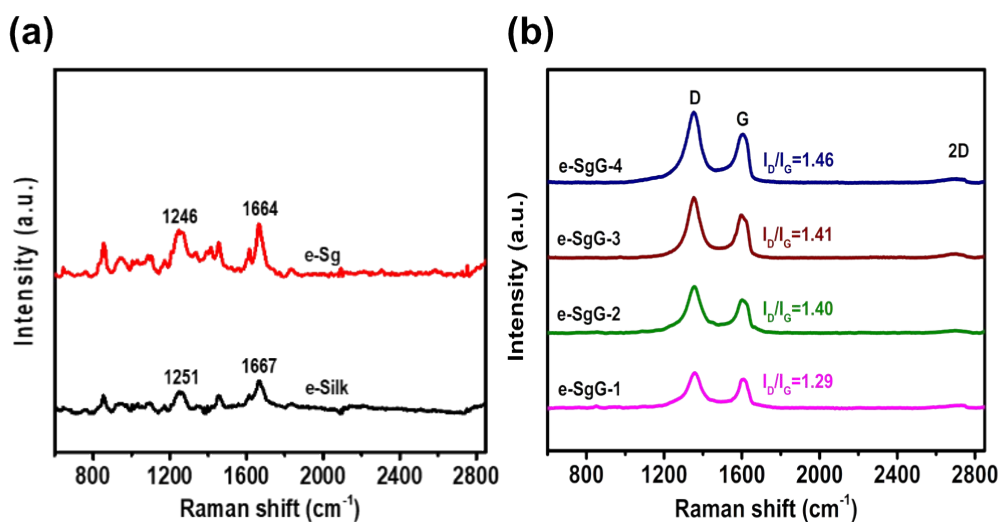


Figure S3. Raman spectra of (a) e-silk film, and silk/gelatin (e-Sg) film obtained through electrogelation, and (b) SgG films with different mass ratio of silk/gelatin/rGO through electrogelation.

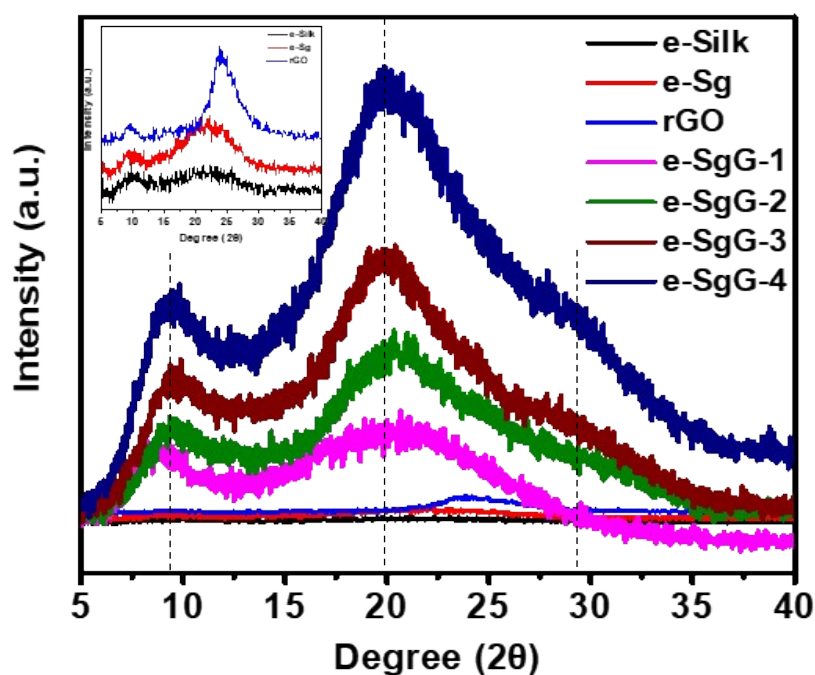


Figure S4. XRD patterns of silk film, silk/gelatin (Sg) film, silk/gelatin/rGO (SgG) films (e-SgG-1, e-SgG-2, e-SgG-3, e-SgG-4) obtained through electrogelation and reduced graphene oxide.

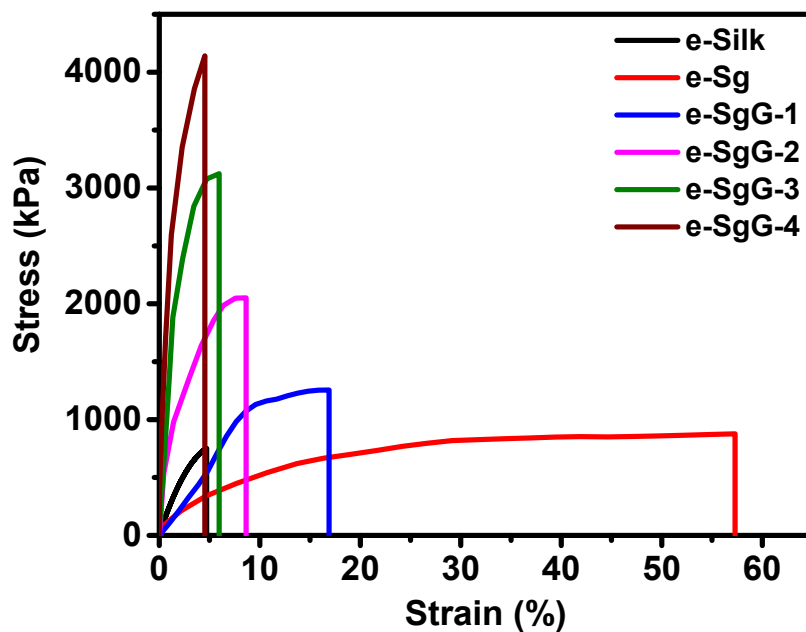


Figure S5. Stress-strain curves of e-Silk film, e-Sg film and e-SgG films at dry state.

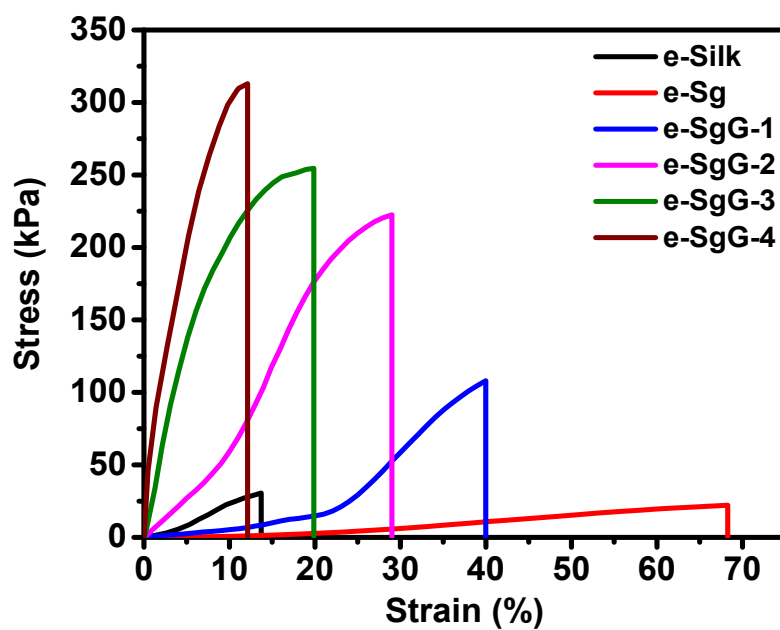


Figure S6. Stress-strain curves of e-Silk film, e-Sg film and e-SgG films after immersed in PBS for 40 min to achieve equilibrium swelling state.

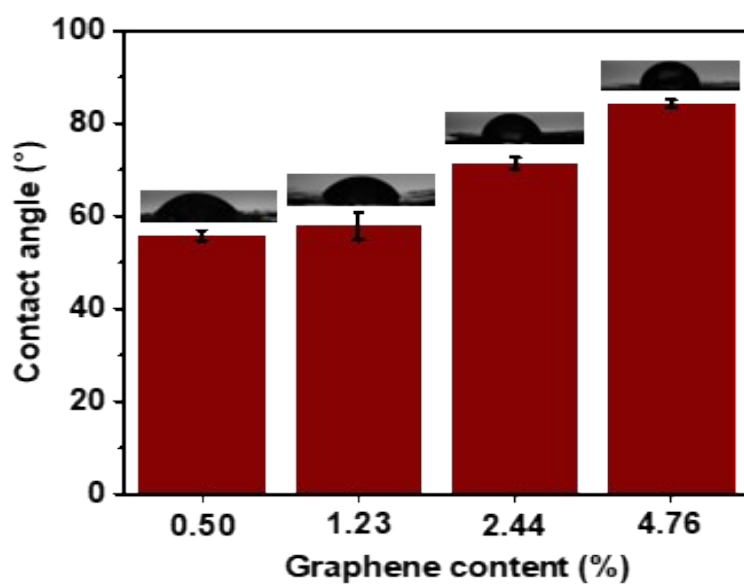


Figure S7. The contact angles of the e-SgG films with increasing rGO content (0.50 %, 1.23 %, 2.44 %, 4.76 %).

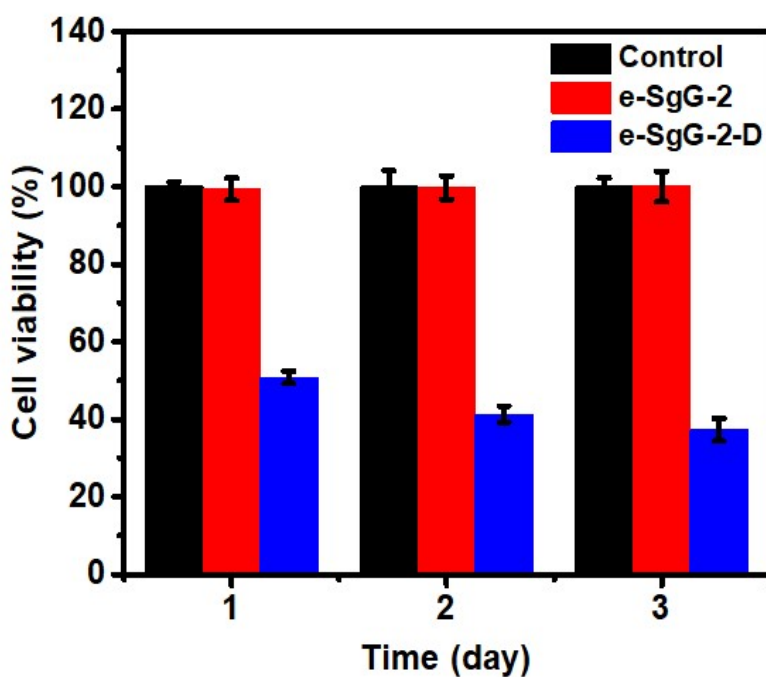


Figure S8. Cell viability of CTXTNA2 cells after one-day, two-day, and three-day incubation with e-SgG-2 and e-SgG-2-D films.