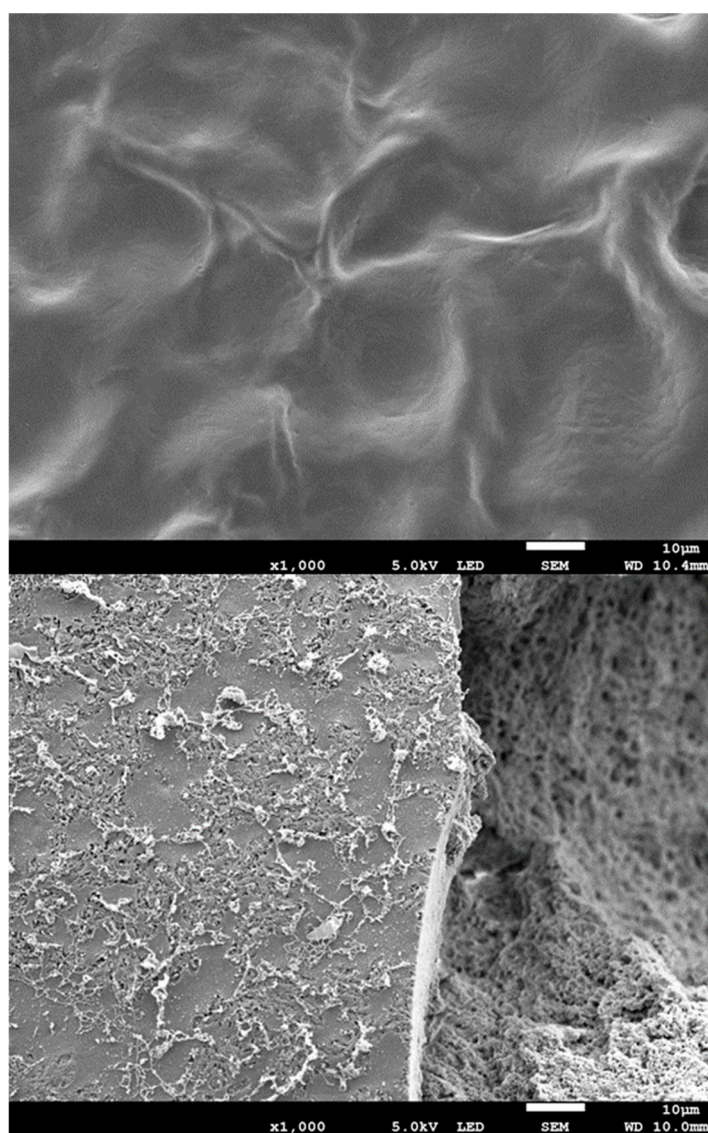
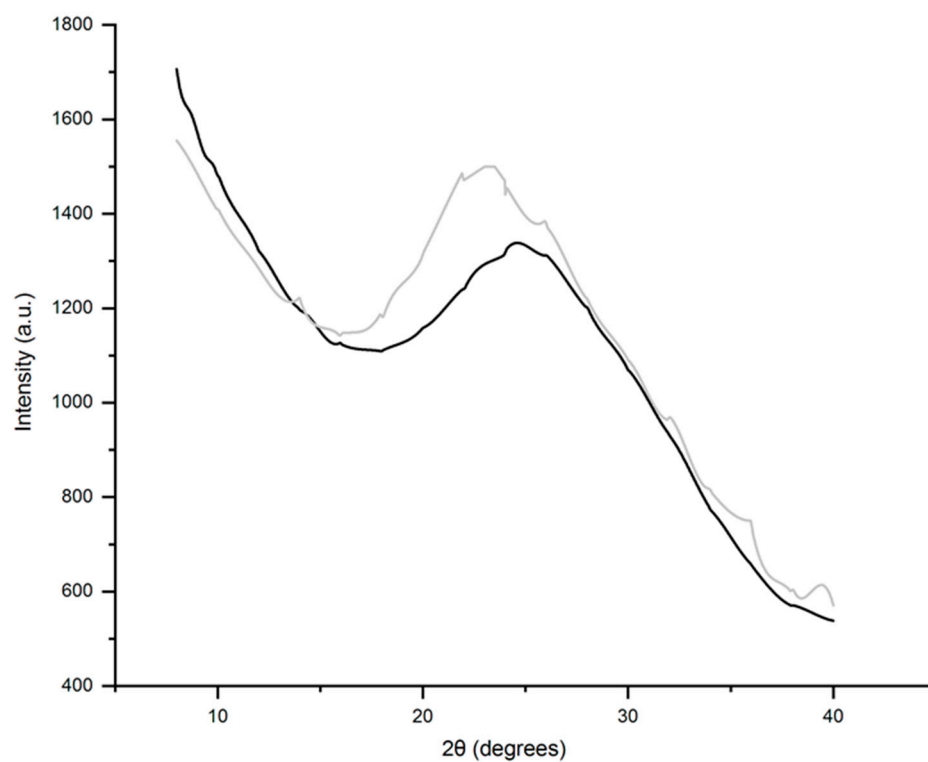


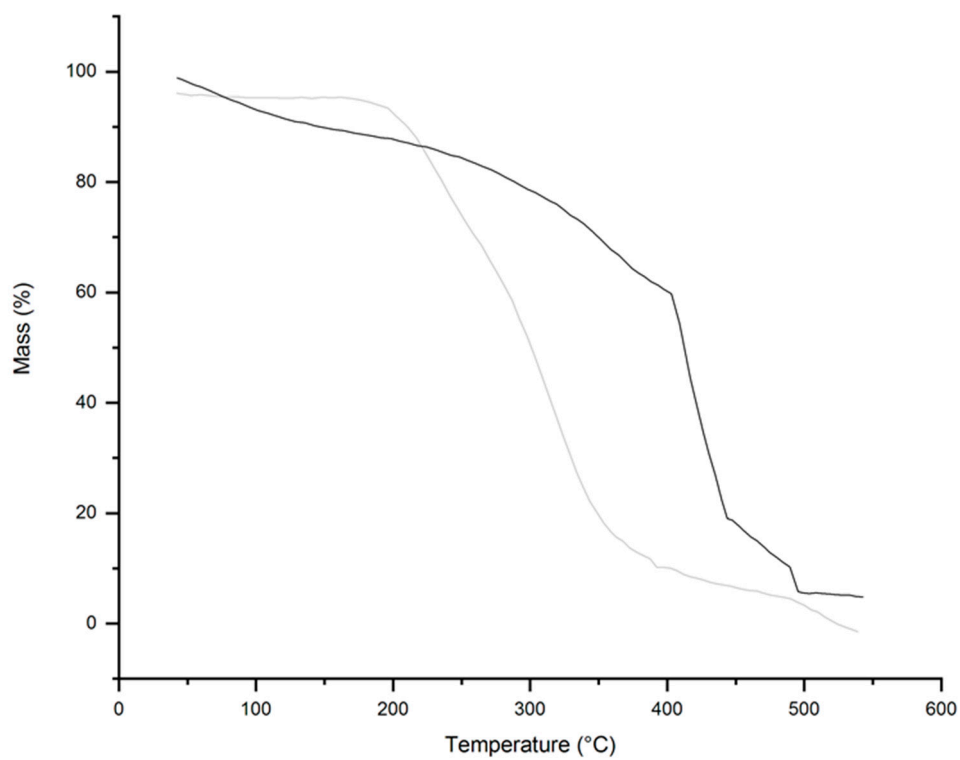
**Figure S1.** Side view (left) and top view (right) of set up for securing hydrogels on glassy carbon electrodes for drug delivery studies.



**Figure S2.** SEM images (x1,000 magnification). Top) non-conductive gels. Bottom) conductive gels. Scale bars represent 10  $\mu\text{m}$ .



**Figure S3.** X-ray diffractograms. Non-conductive gels (grey line); conductive gels (black line).



**Figure S4.** TGA thermograms. Non-conductive hydrogels (grey); conductive hydrogels (black).