

*Electronic Supplementary Information for*

## Synthesis of Electroconductive Hydrogel Films by Electro- controlled Click Reaction and its Application to Drug Delivery System

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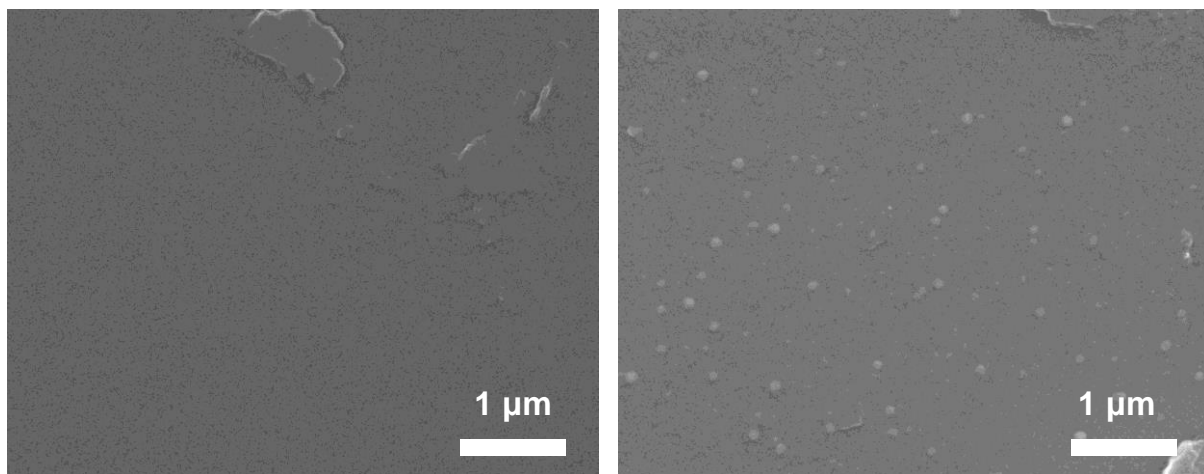
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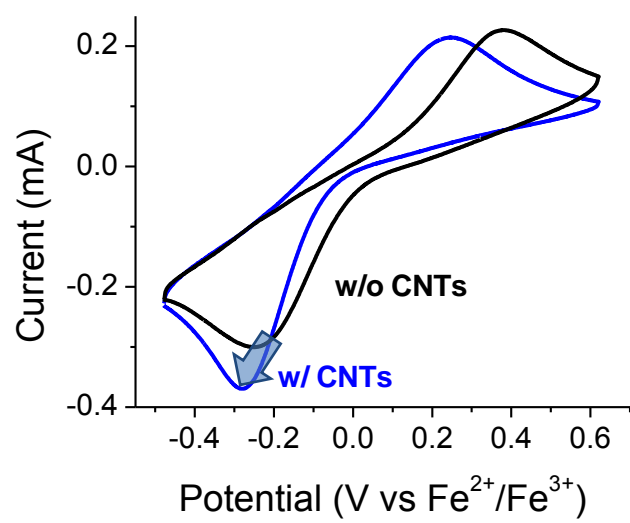
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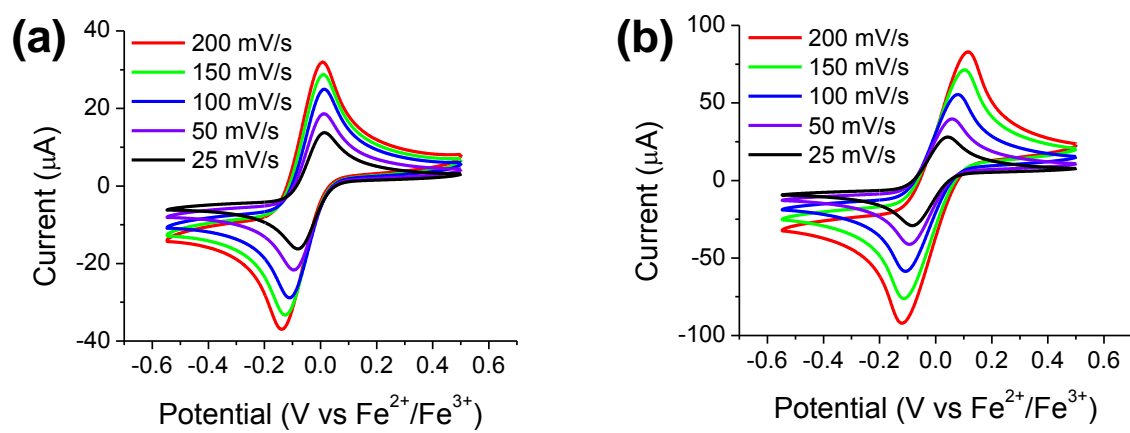
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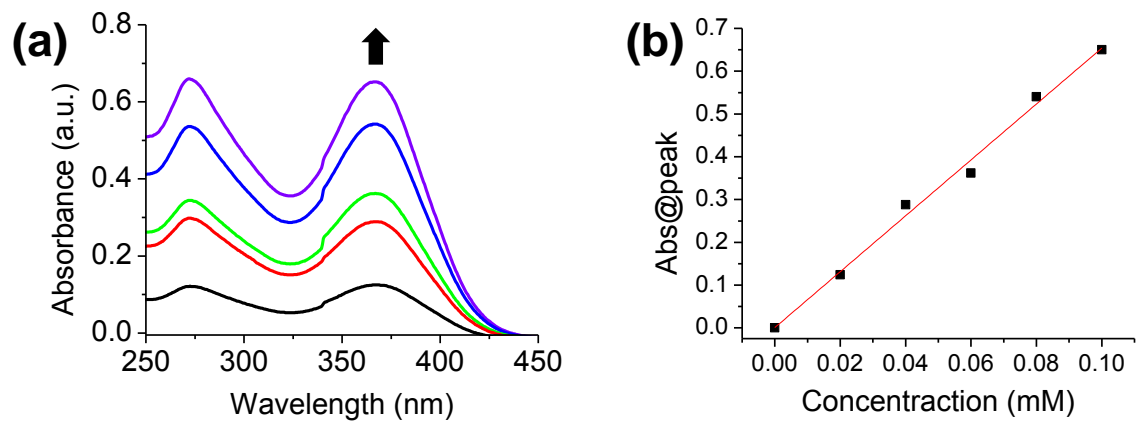
**Fig S1.** SEM image of ITO-coated glass after gelation reaction without bis-azide crosslinker.



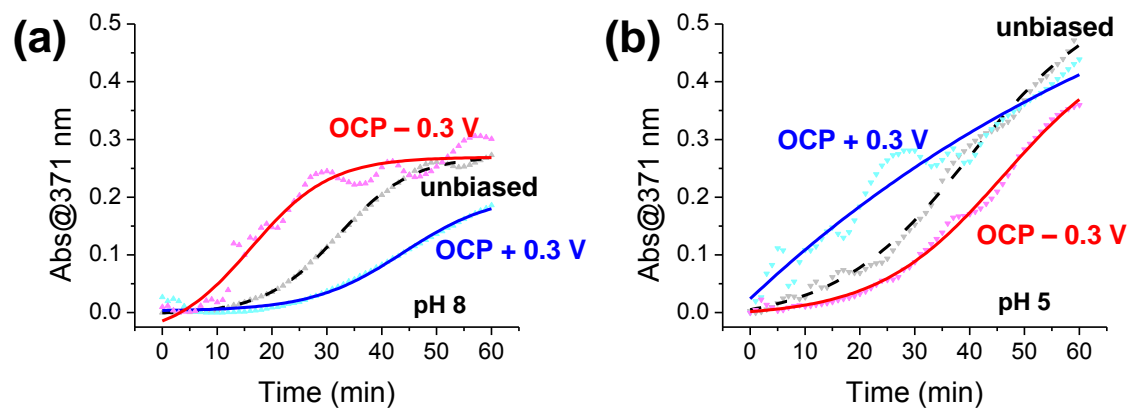
**Fig S2.** Cyclic voltammogram of CNT/PVA click solution.



**Fig S3.** Cyclic voltammogram of  $\text{Fe}(\text{CN})_6^{3-}$  with different scan rates (a) PVA solution and (b) CNT/PVA solution.



**Fig S4.** (a) UV-vis spectra of tetracycline with different concentration and (b) calibration curve.



**Fig S5.** Release profile of tetracycline from PVA hydrogel film under (a) pH 8 solution and (b) pH 5 solution.