

## Supporting Information

### Effective gamma-ray sterilization and characterization of conductive polypyrrole biomaterials

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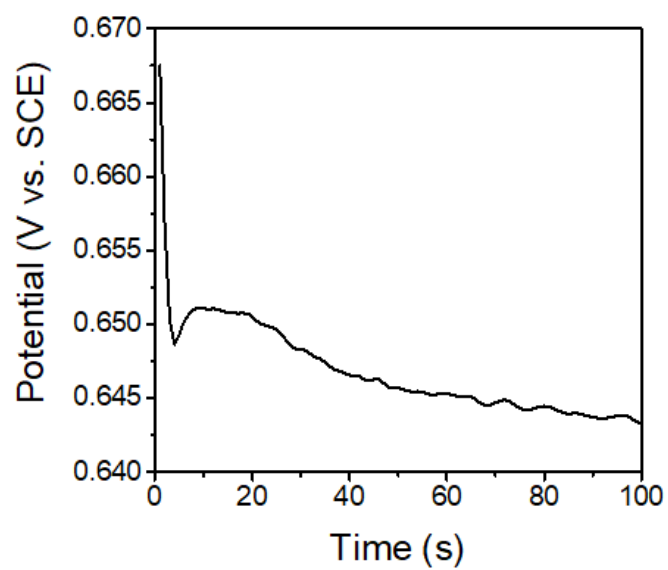
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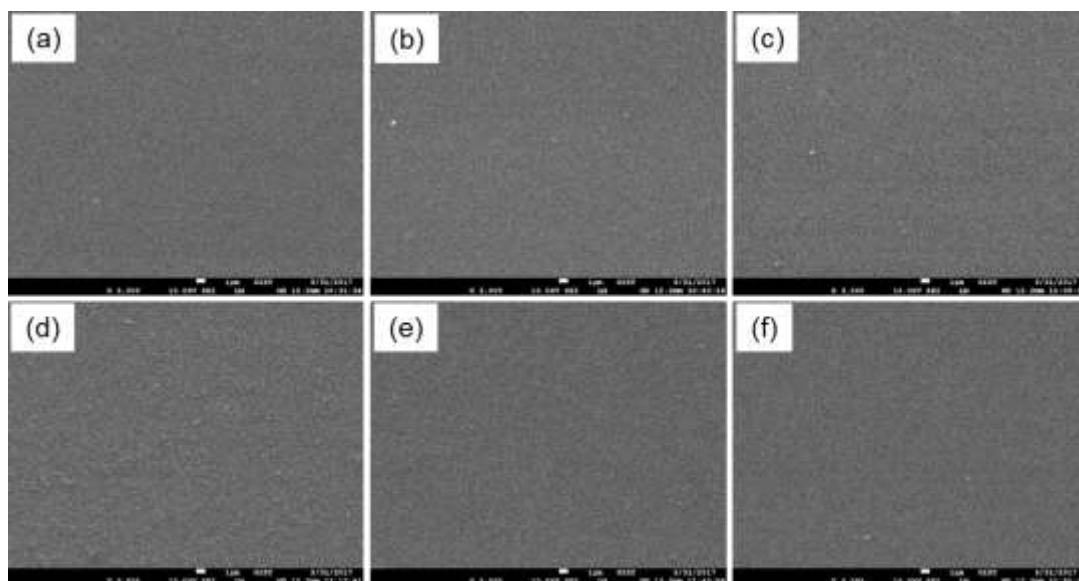
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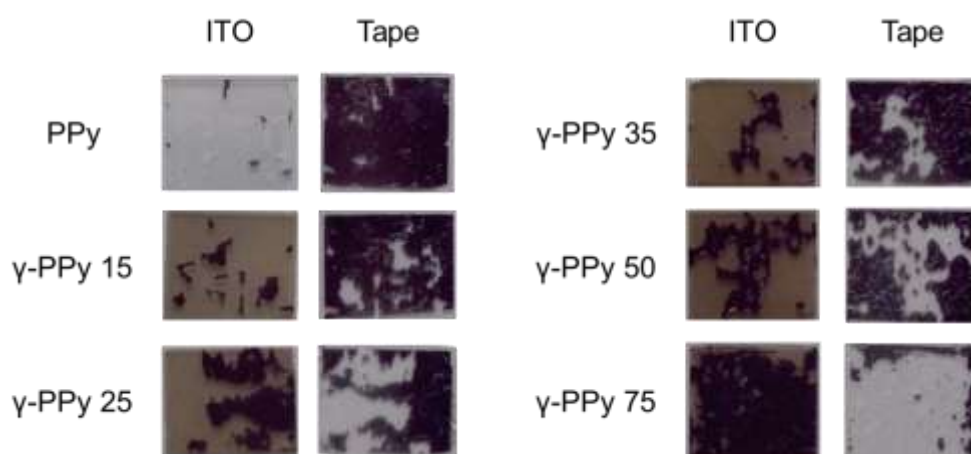
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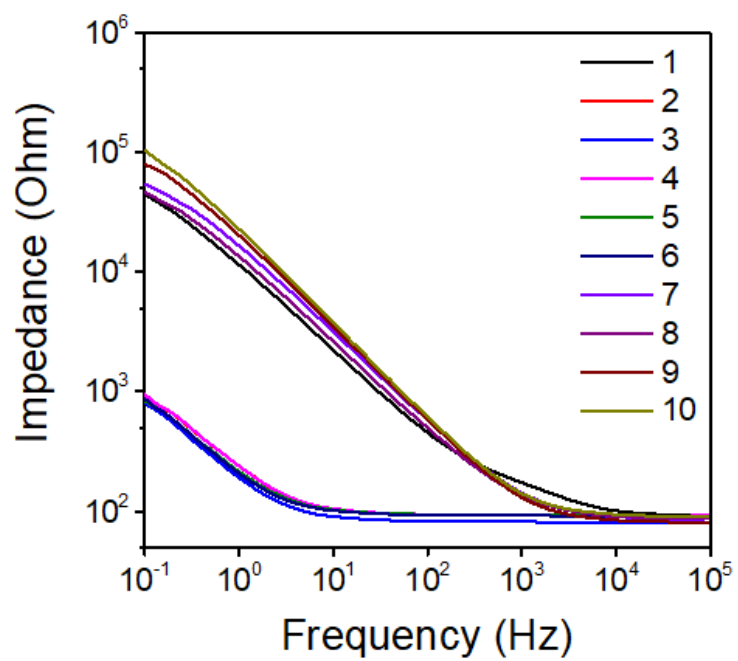
**Figure S1.** A potential time curve during the galvanostatic electrodeposition of PPy/pTS films in the monomer solution (0.15 M pyrrole and 0.1 M pTS) at  $1 \text{ mA/cm}^2$  and 100 mC.



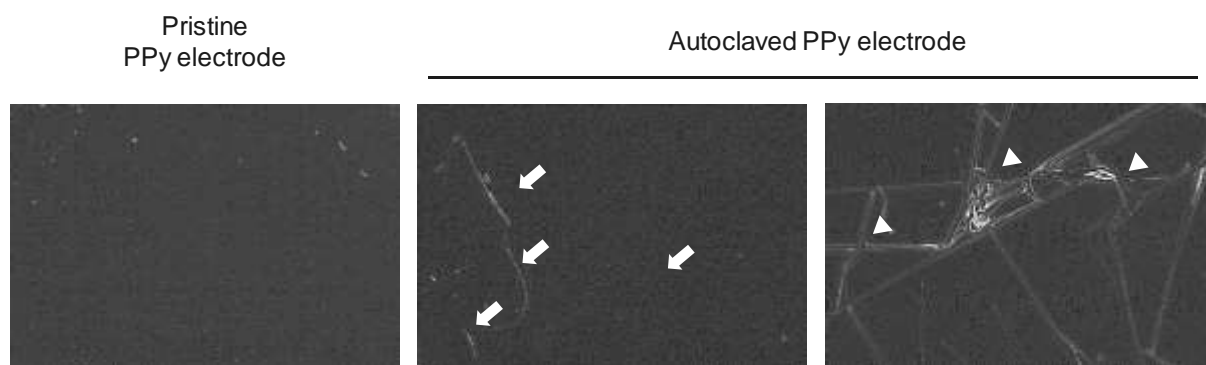
**Figure S2.** Scanning electron micrographs of the  $\gamma$ -PPy; (a) PPy, (b)  $\gamma$ -PPy 15, (c)  $\gamma$ -PPy 25, (d)  $\gamma$ -PPy 35, (e)  $\gamma$ -PPy 50, and (f)  $\gamma$ -PPy 75.



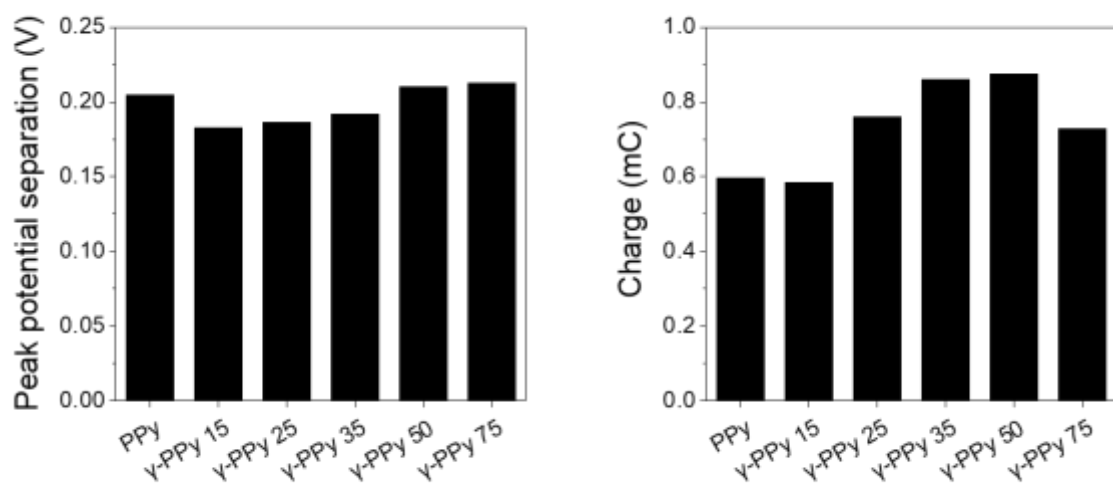
**Figure S3.** Photographs of the PPy and  $\gamma$ -PPy electrodes before and after the Scotch tape detachment test.



**Figure S4.** Bode plots of autoclaved PPy electrodes. Ten samples were measured.

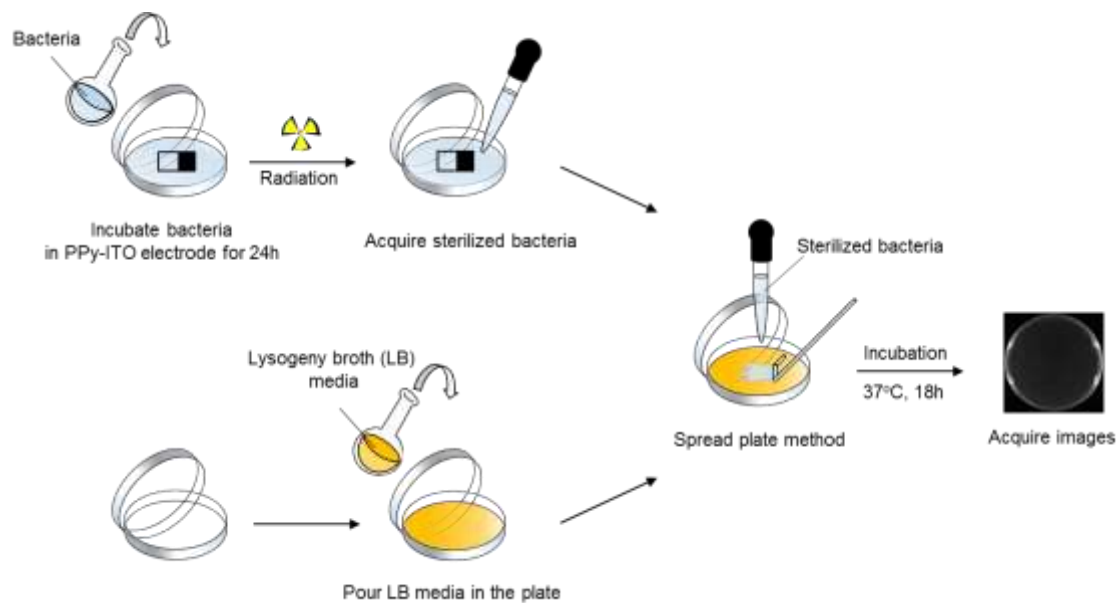


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**Figure S6.** Peak potential separation and capacitance from cyclic voltammogram.





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