

Supporting Information

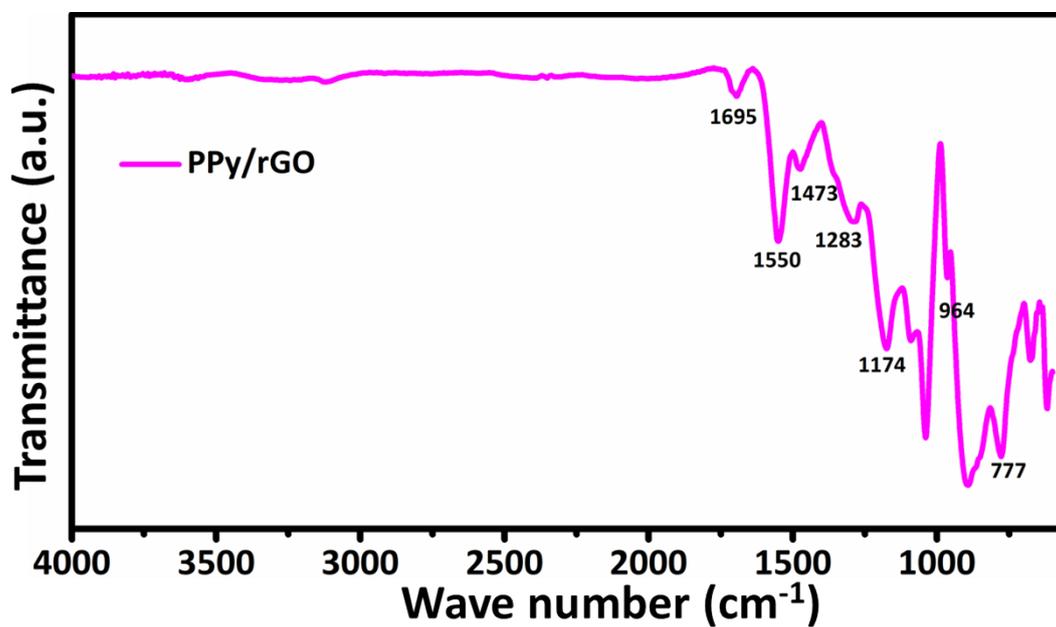


Figure S1. FT-IR spectrum of PPy/rGO microelectrodes.

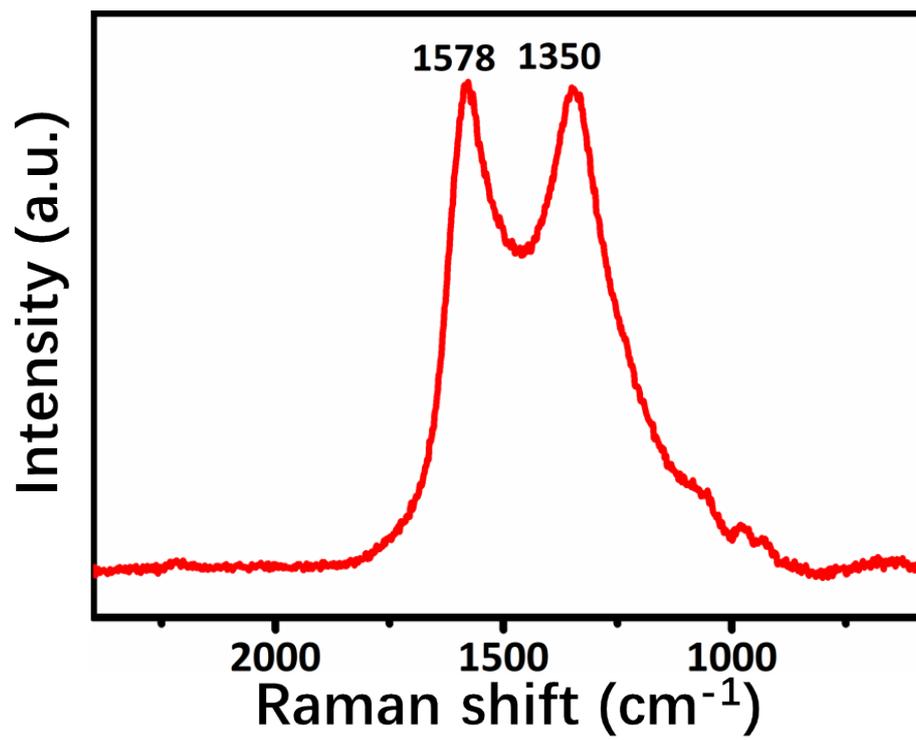


Figure S2. Raman spectrum of PPy/rGO electrodes.

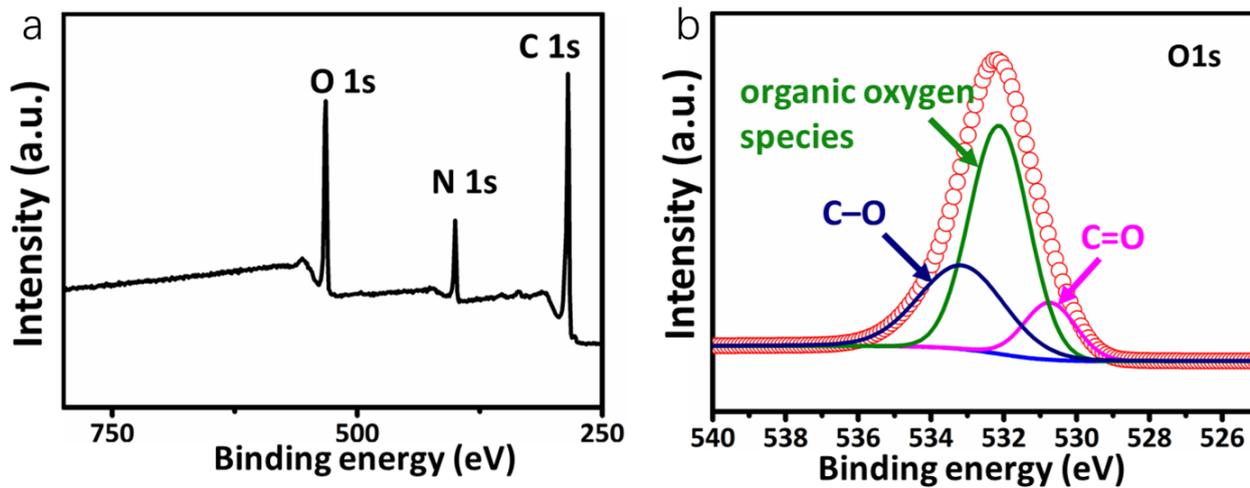


Figure S3. (a) Full XPS spectra of rGO/PPy hybrids. (b) XPS spectrum corresponding to O1s states.

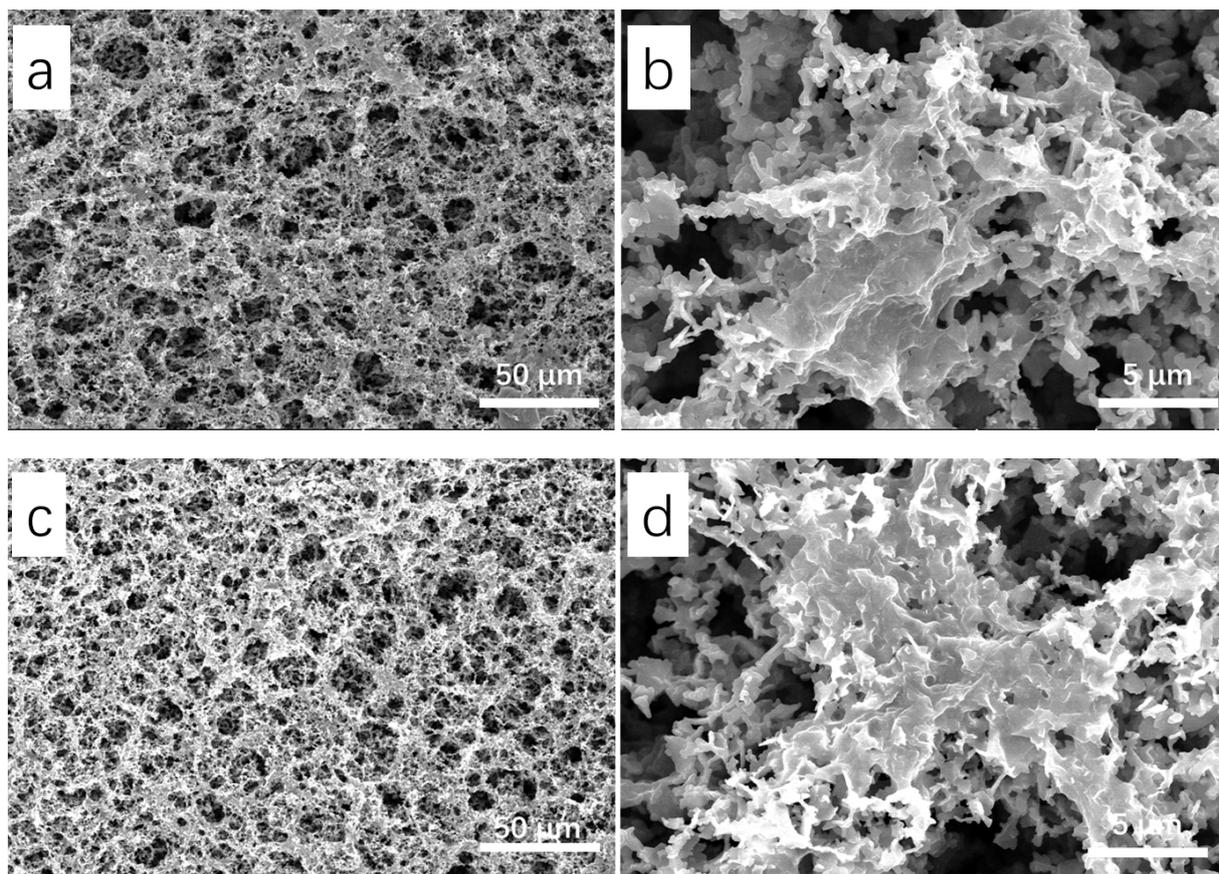


Figure S4. (a,b) SEM images of PPy/rGO electrodes fabricated at a polymerization time of 900 s.
(c,d) SEM images of PPy/rGO electrodes fabricated at a polymerization time of 2100 s.

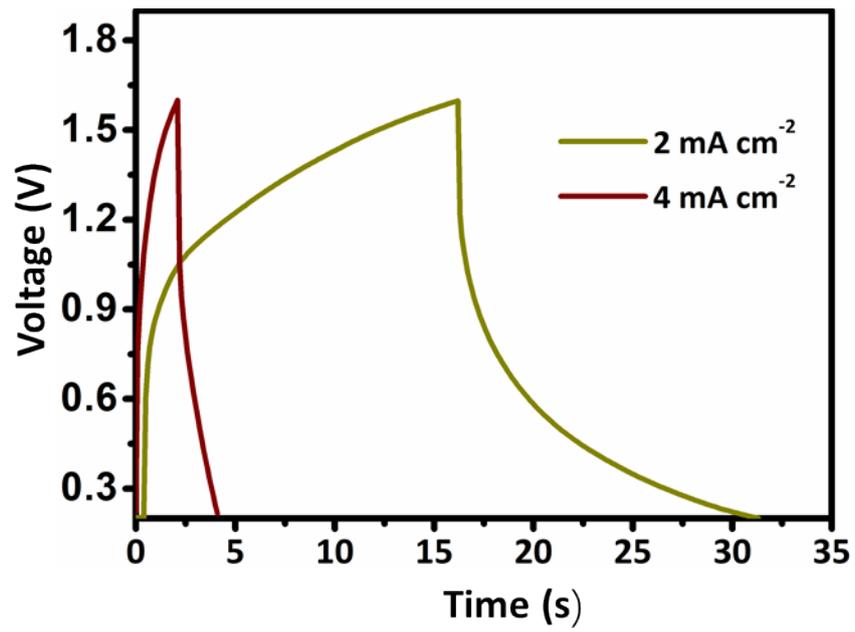


Figure S5. GCD curves of ZIHCs at current densities of 2 and 4 mA cm⁻².

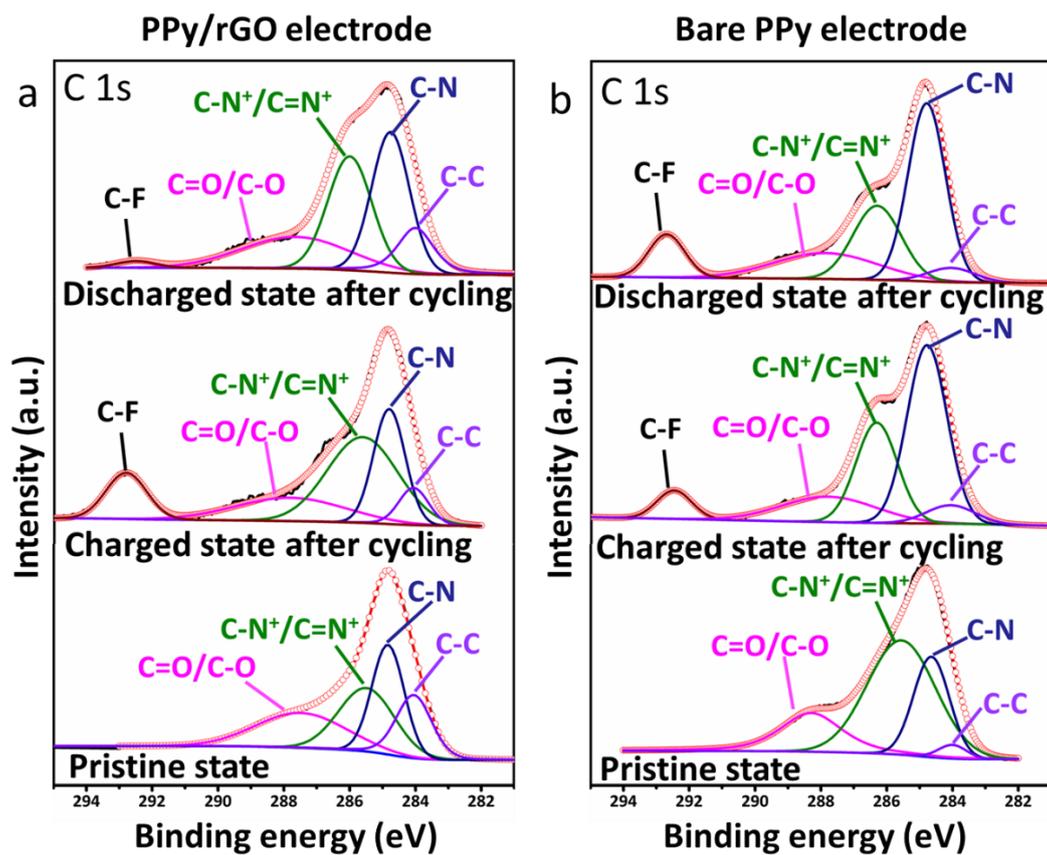


Figure S6. XPS spectra corresponding to C1s states for (a) PPy/rGO and (b) bare PPy electrodes at different states after 3,000 charge/discharge cycles.

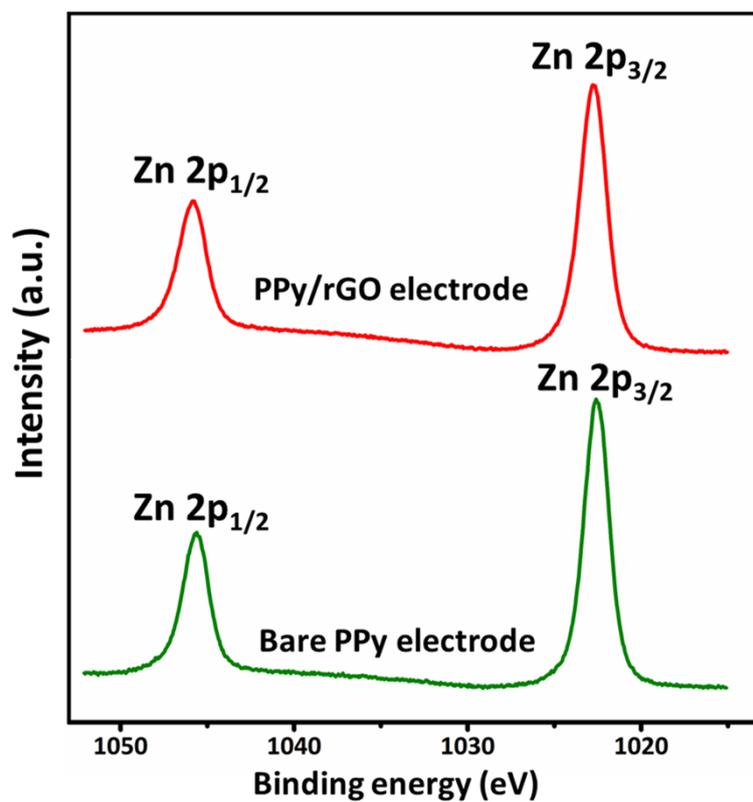


Figure S7. XPS spectra corresponding to Zn 2p states for (a) PPy/rGO and (b) bare PPy electrodes after 3,000 charge/discharge cycles.

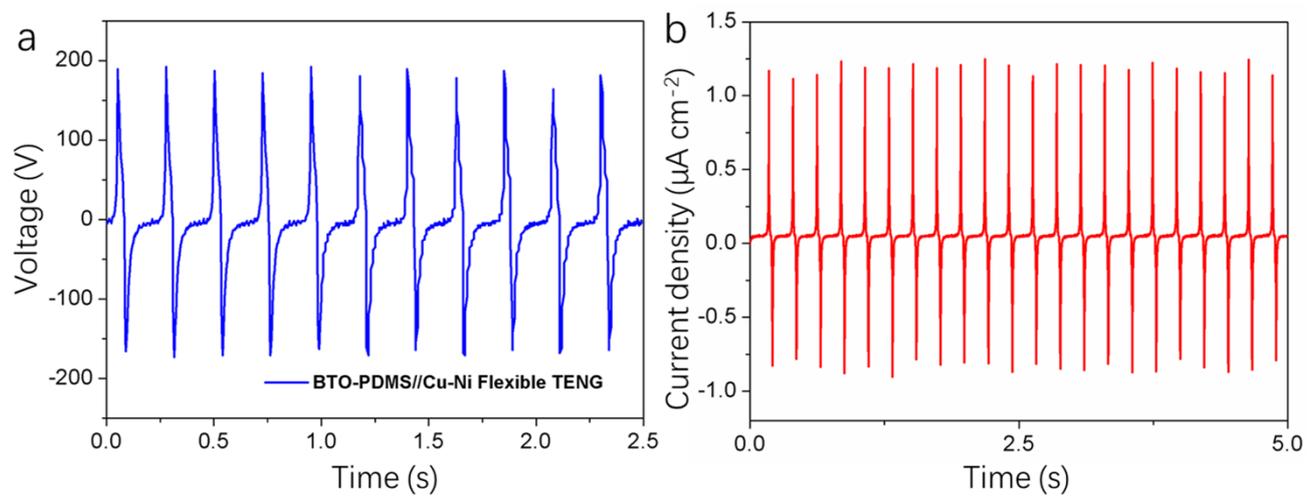


Figure S8. (a) Voltage and (b) current output of flexible Cu-Ni//PDMS/BTO TENGs.