

Supplementary Information

Figures

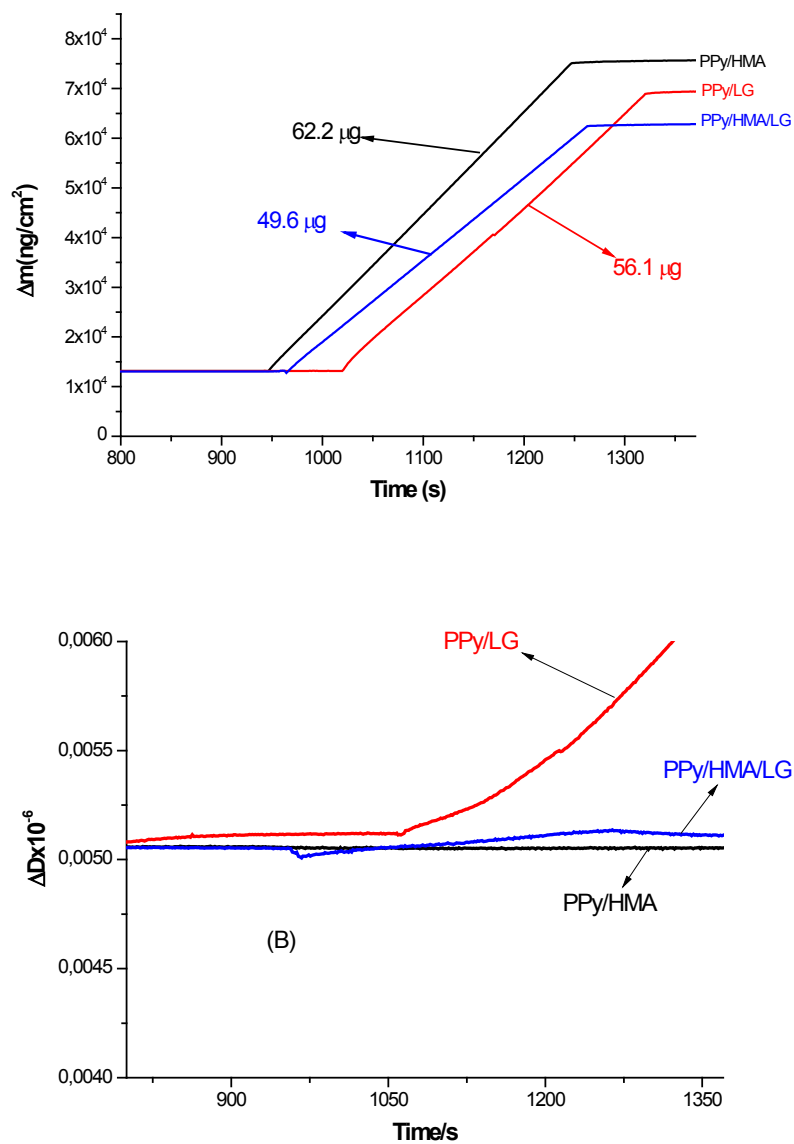


Figure S1. Mass changes (A) and dissipation curves (B) obtained for the binary and ternary systems.

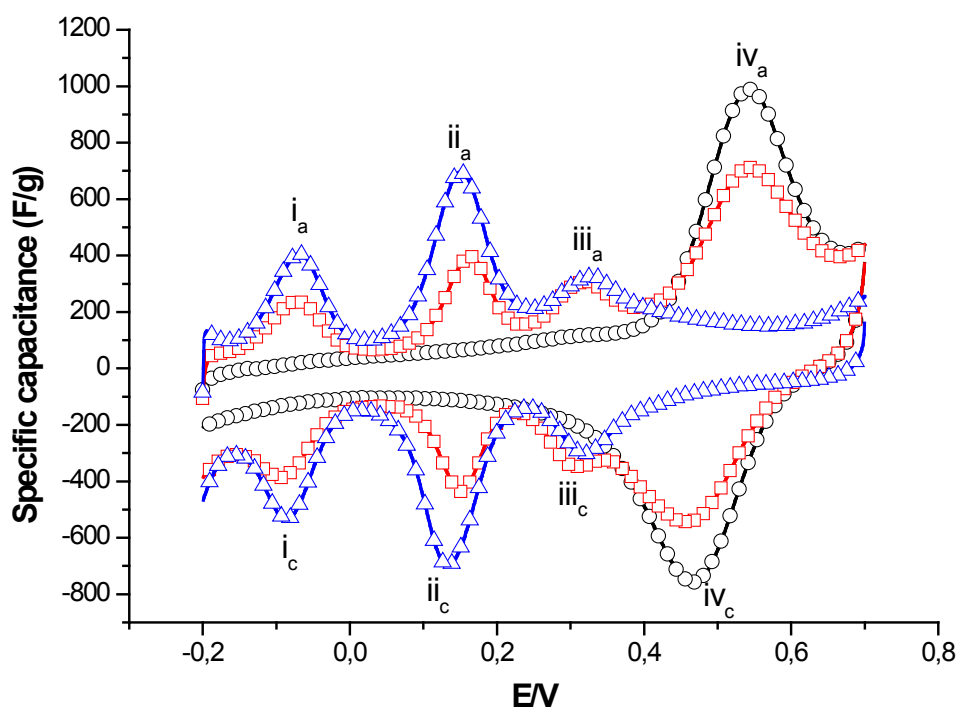
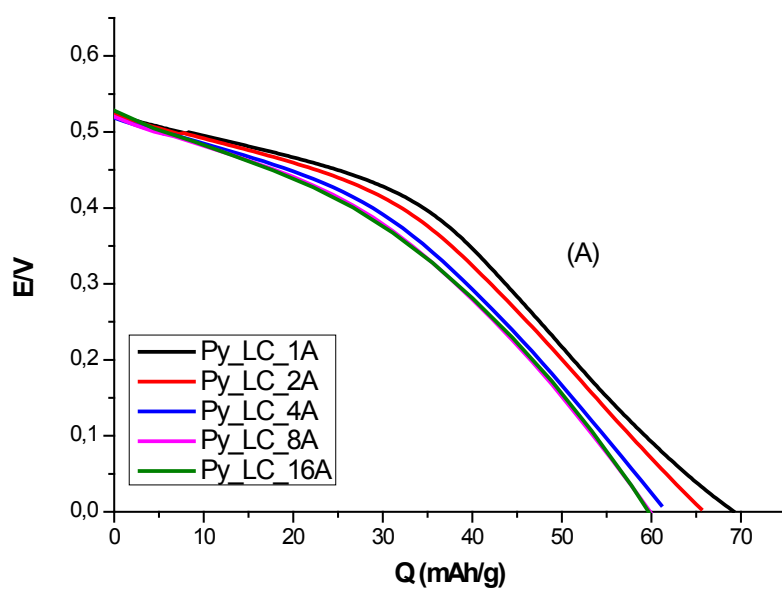


Figure S2. Specific capacitances of (O) PPy/LG, (Δ) PPy/HMA) and (\square) PPy/HMA/LG on gold electrode in 0.1 M HClO₄ at a scan rate of 20 mV/s.



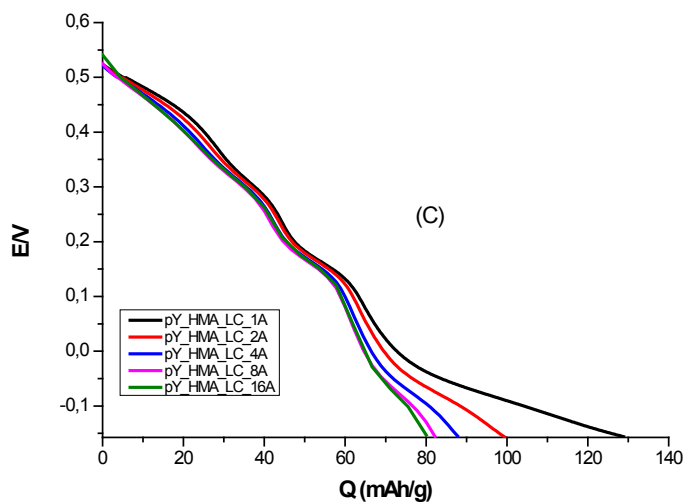
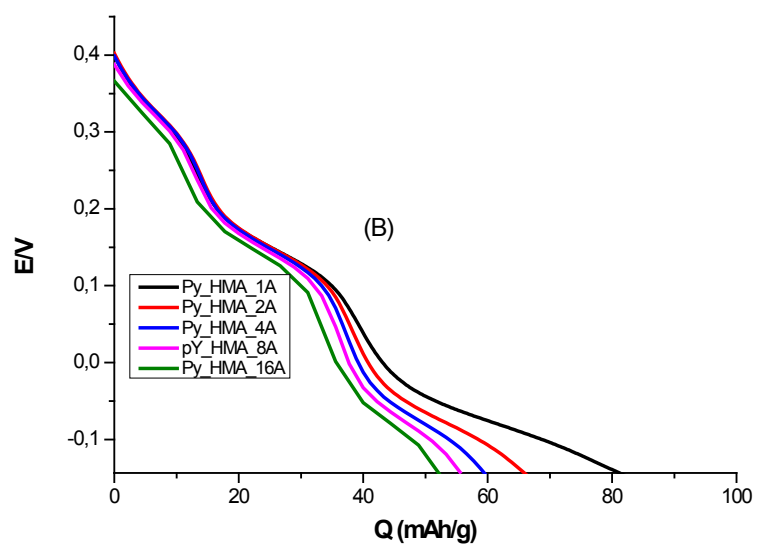


Figure S3. Discharge curves (A) PPY/LG, (B) PPY/HMA and (C) PPY/HMA/LG at different currents.

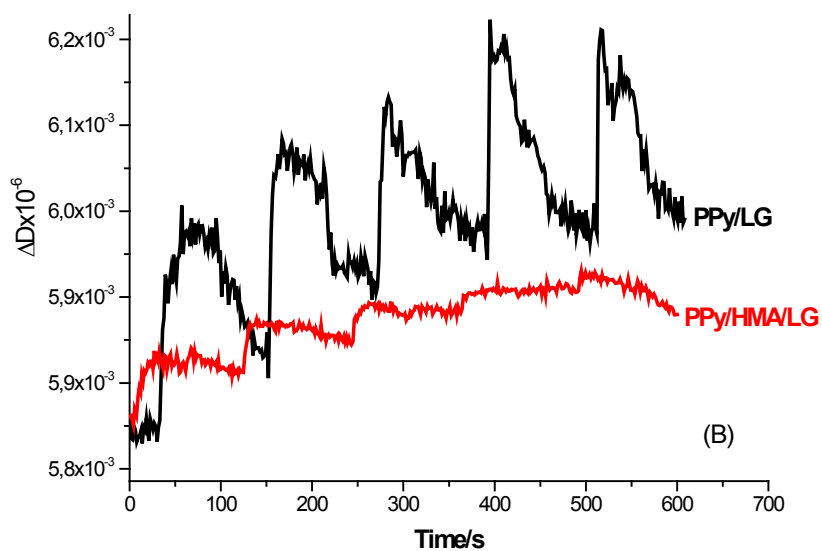
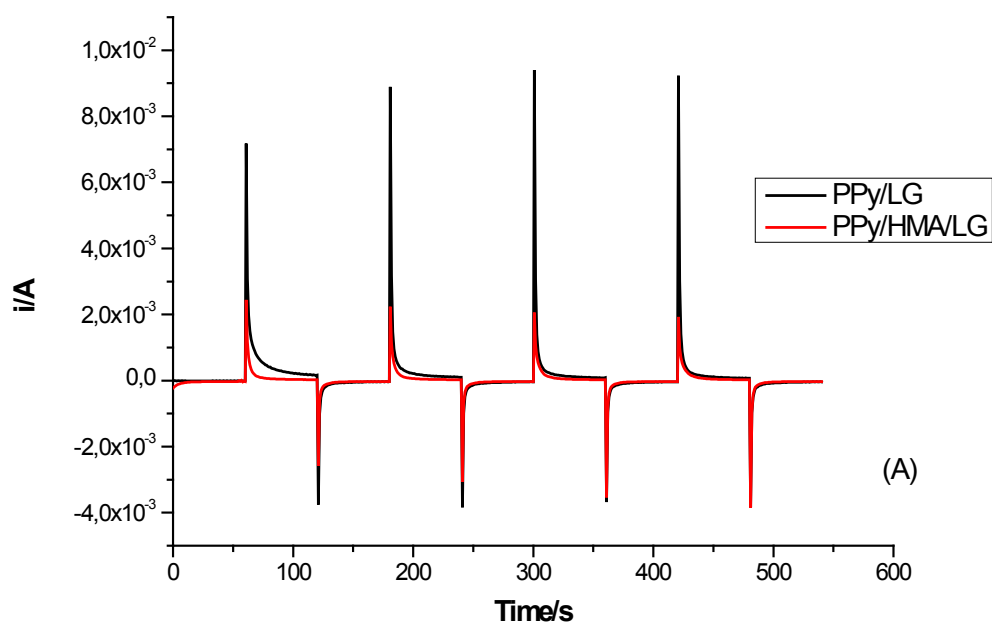


Figure S4. Changes in dissipation and the corresponding chronoamperograms for PPy/LG and PPy/HMA/LG as the potential is switched between 0.0 and 0.7 V.

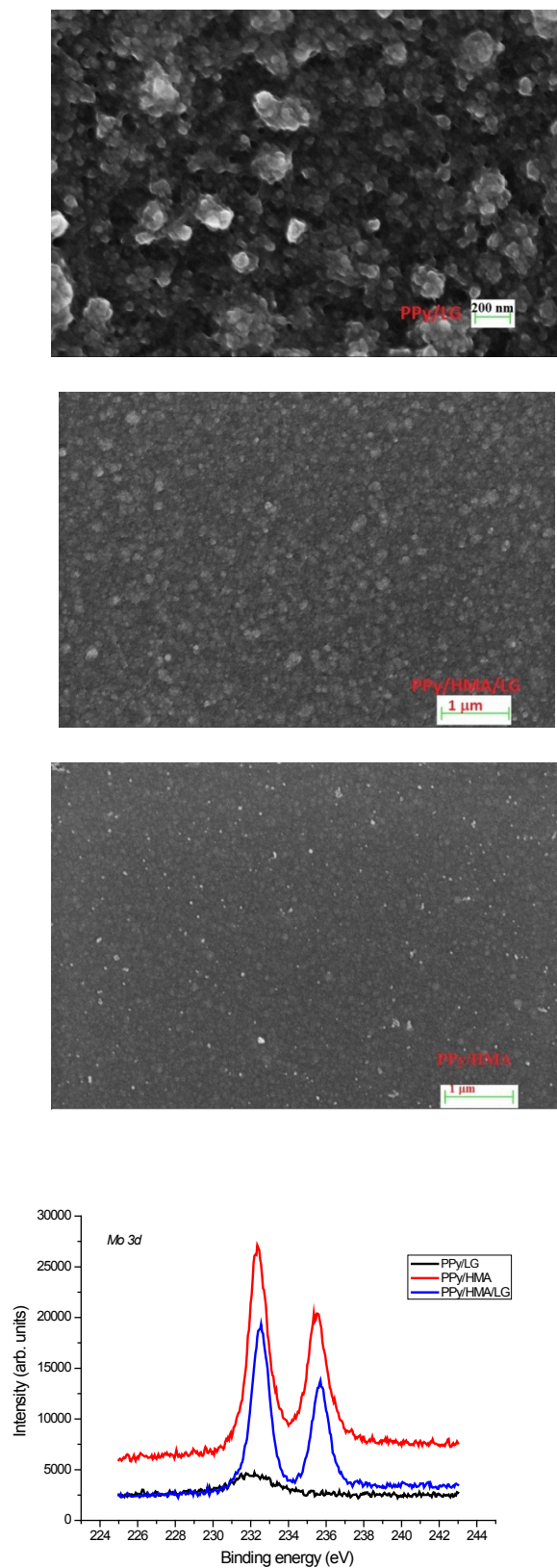


Figure S5. Scanning Electron Microscopy images and X-ray Photoelectron Spectra of the binary and ternary systems investigated.

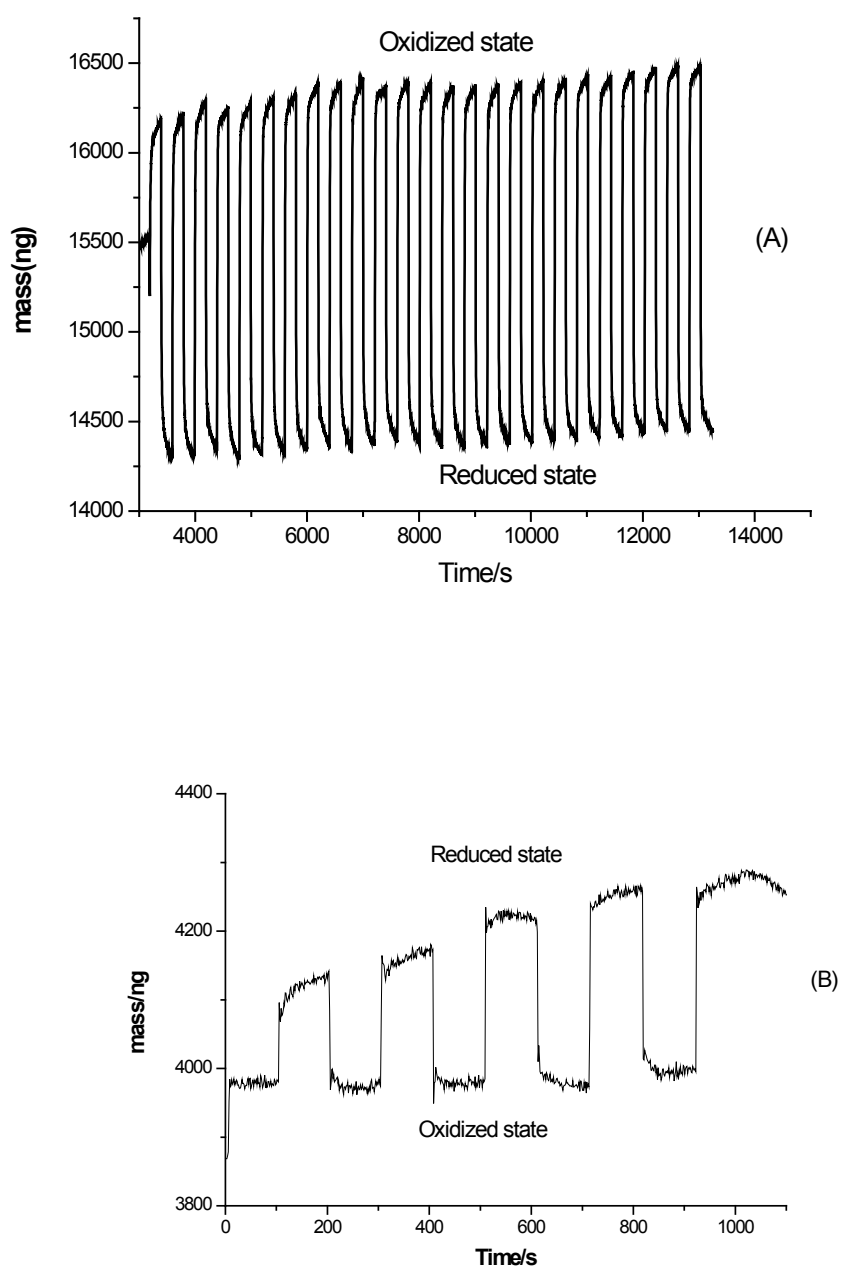


Figure S6. Massograms for (A) PPy doped with ClO_4^- and (B) PPy doped with HMA.

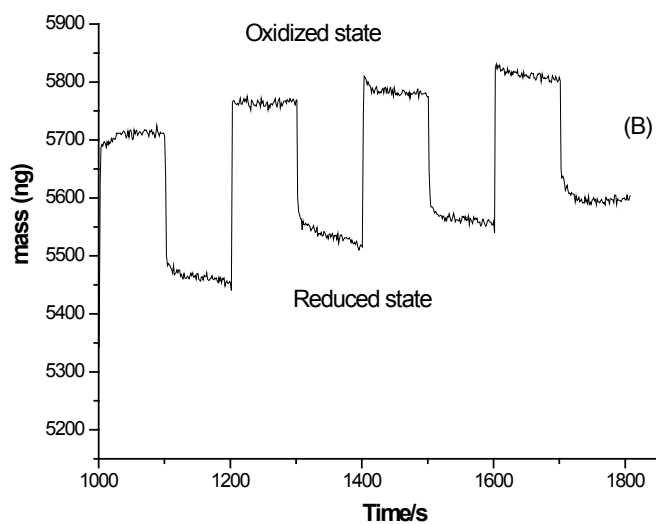
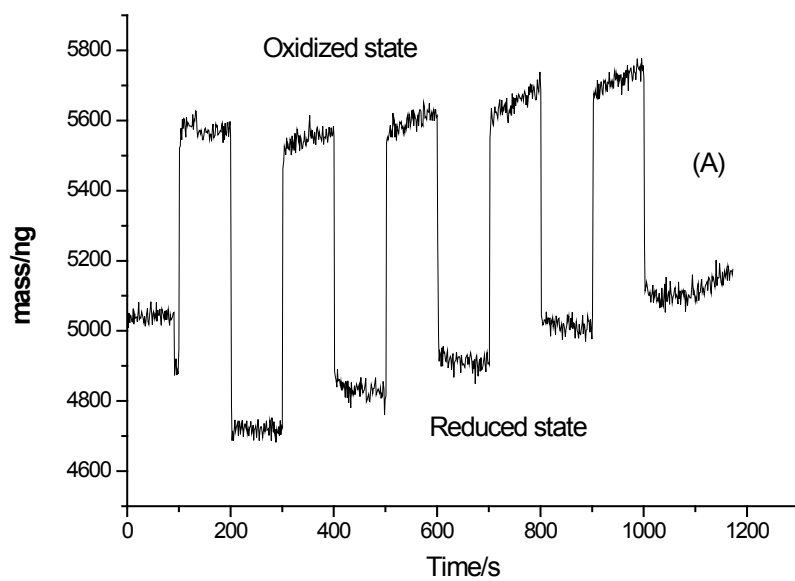


Figure S7. Massograms for (A) PPy doped with LG and (B) PPy doped with HMA/LG.

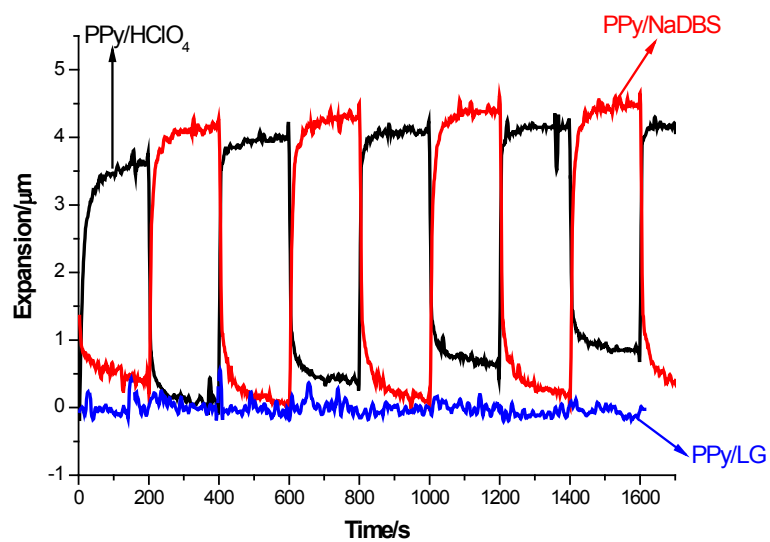


Figure S8. Comparison of the actuation (radial expansion) for PPy/LG, PPy/ClO₄⁻ and PPy/NaDBS systems.