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Extracting metal ions from water with redox active biopolymer electrodes

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Figures 1S depicts the effect of scan rates on the peak currents for the major oxidation and reduction peaks of the composite films.

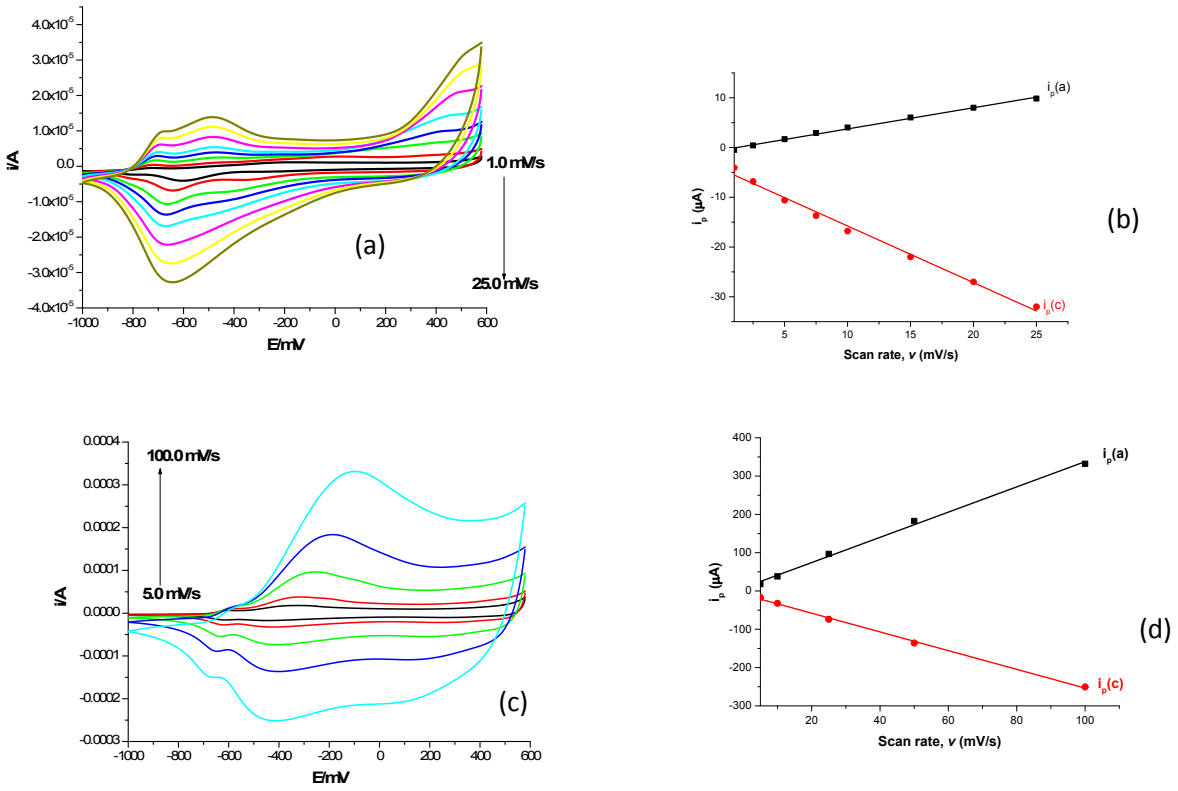

Figure 1S. Effect of scan rate on peak currents for (a, b) PPy/AQS, and (c, d) PPy/AQS/LG films in a monomer free 0.1 M NaCl solution.

The mass recorded at the various frequencies for polypyrrole/AQS/LG electrode is depicted in Figure 2S.

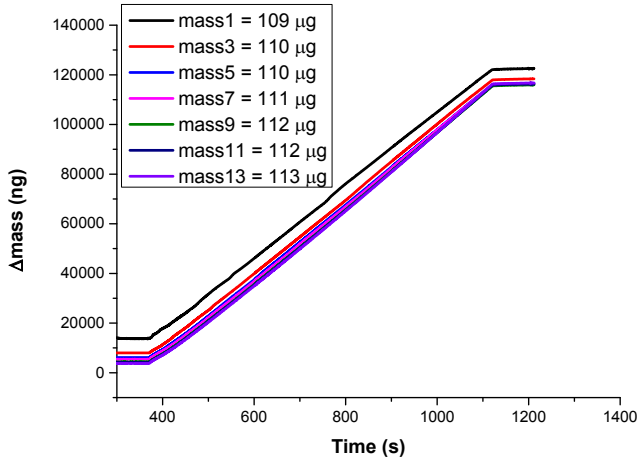

Figure 2S. Mass changes recorded at various frequencies during growth of a PPy/AQS/LG electrode with polymerization charge density of 187.5 mC/cm^2.

The mass changes for different concentrations of lead ions are shown in Figure 3S.

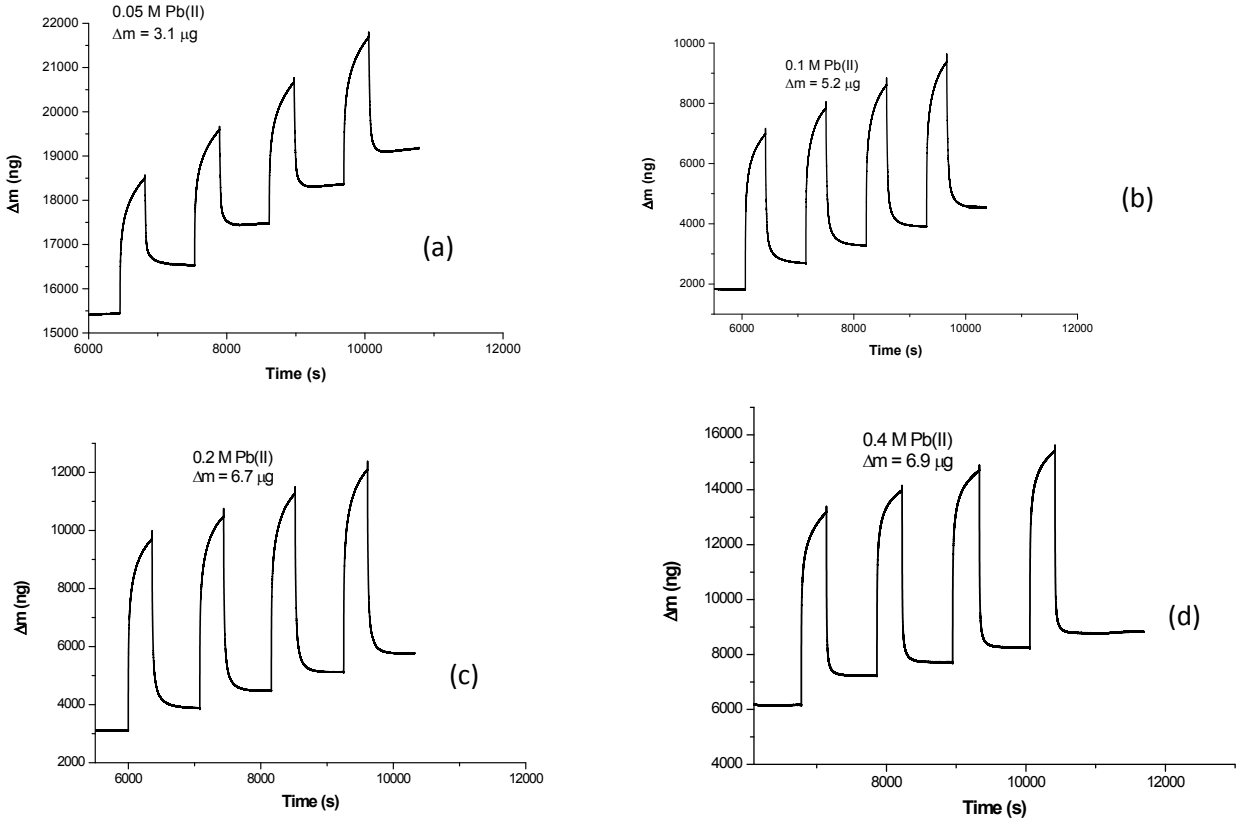

Figure 3S. Changes in amount of lead ions that are being incorporated and released from a Pb(II) concentrations of (a) 0.05 M, (b) 0,.1 M, (c) 0.2 M and (d) 0.4 M of Pb(II) at PPy/AQS/LG film as potential is switched between +0.4 and -0.4 V.