

Supplementary Information

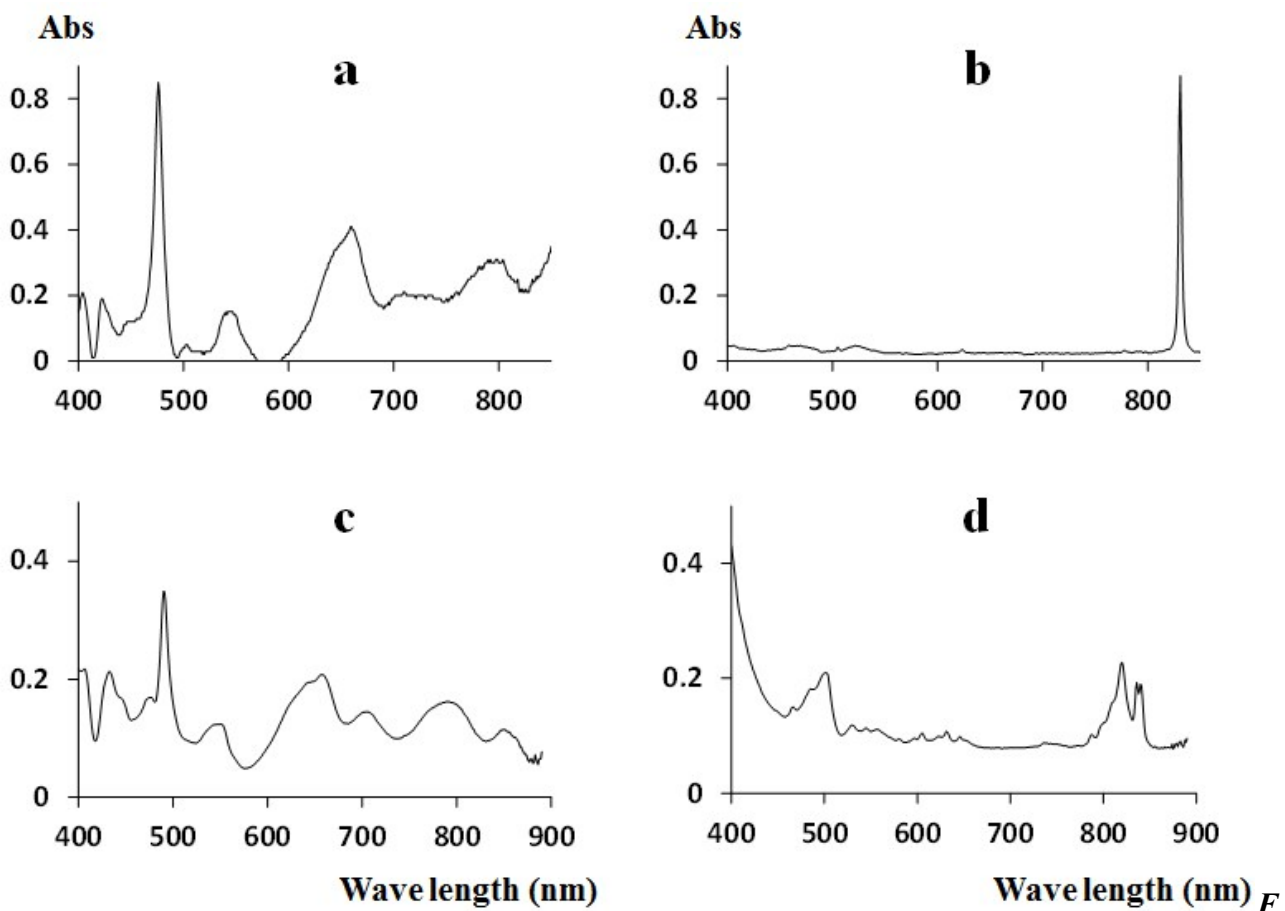


figure S1. Visible absorption spectra: **a, b:** Pu(IV) and Pu(VI) (both 6.2 mmol.L^{-1}) in HNO_3 5 mol.L^{-1} . **c, d:** Pu(IV) and Pu(VI) in TBP- HNO_3 equilibrated with HNO_3 5 mol.L^{-1} .

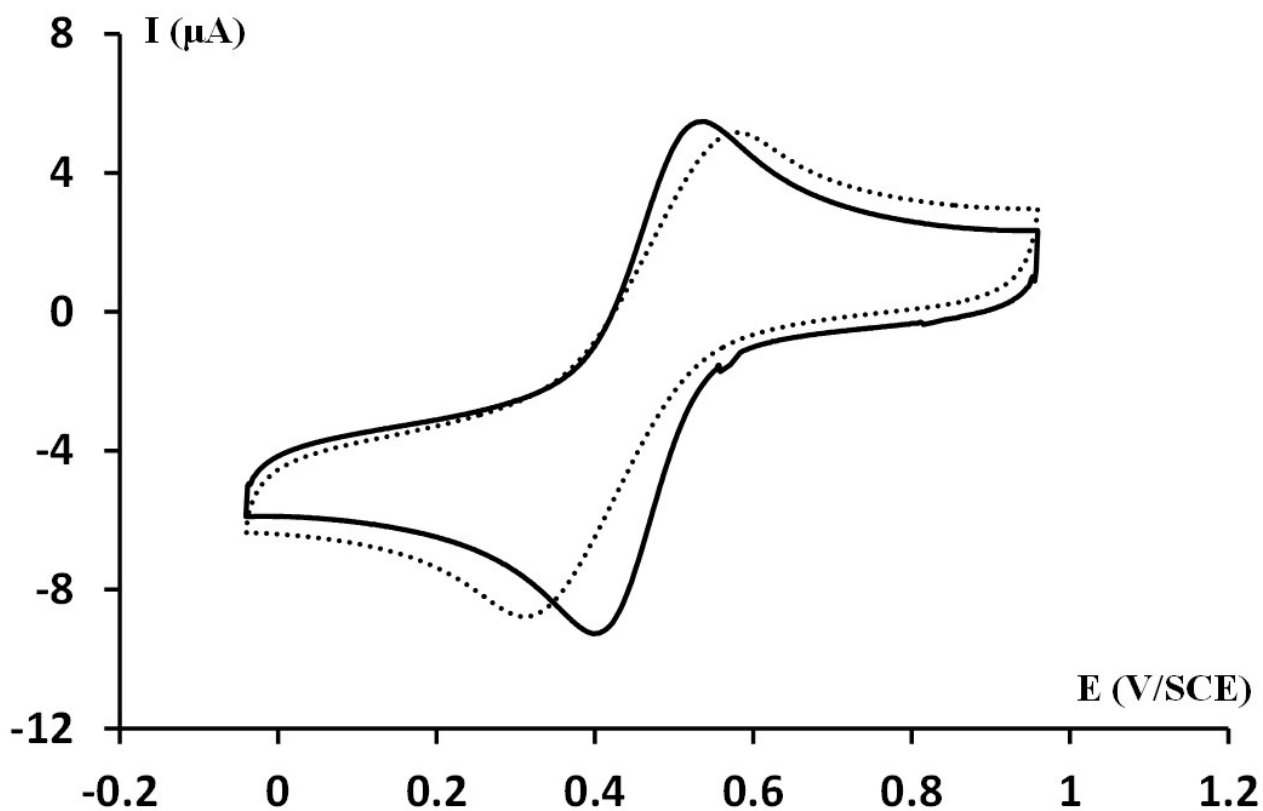


Figure S2. CVs of Pu(IV) 6.11 mmol.L^{-1} in TBP equilibrated with HNO_3 (5 mol.L^{-1}) aqueous solution at a GCE electrode (area 0.007 cm^2). Scan rate $\nu = 750 \text{ mV.s}^{-1}$. Dotted line: uncompensated from ohmic drop. Solid line: $10 \text{ k}\Omega$ positive feedback compensation (corresponding to 85% of total resistance).

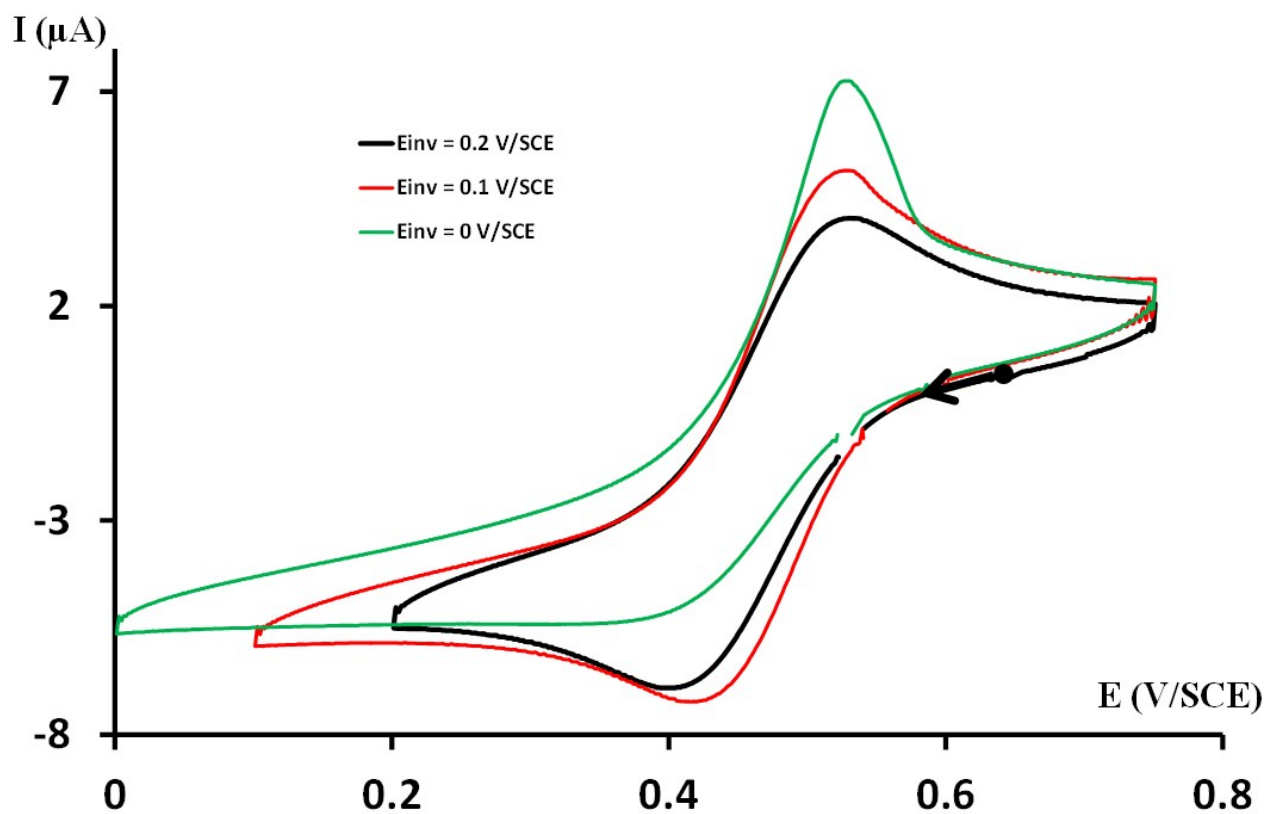


Figure S3. CVs with different cathodic potential limit of Pu(VI) $5.72 \text{ mmol}\cdot\text{L}^{-1}$ in TBP equilibrated with HNO_3 ($3 \text{ mol}\cdot\text{L}^{-1}$) aqueous solution at a GCE electrode (area 0.007 cm^2). Ohmic drop correction. Scan rate $\nu = 500 \text{ mV}\cdot\text{s}^{-1}$.