Electronic Supplementary Material (ESI) for Journal of Materials Chemistry C.

Supporting Information for "Heterobimetallic conducting polymers based on salophen complexes via electrosynthesis"

Francesca Bia, Isacco Gualandi, Jan Griebel, Leon Rasmussen, Bassam Hallak, Domenica Tonelli and Berthold Kersting

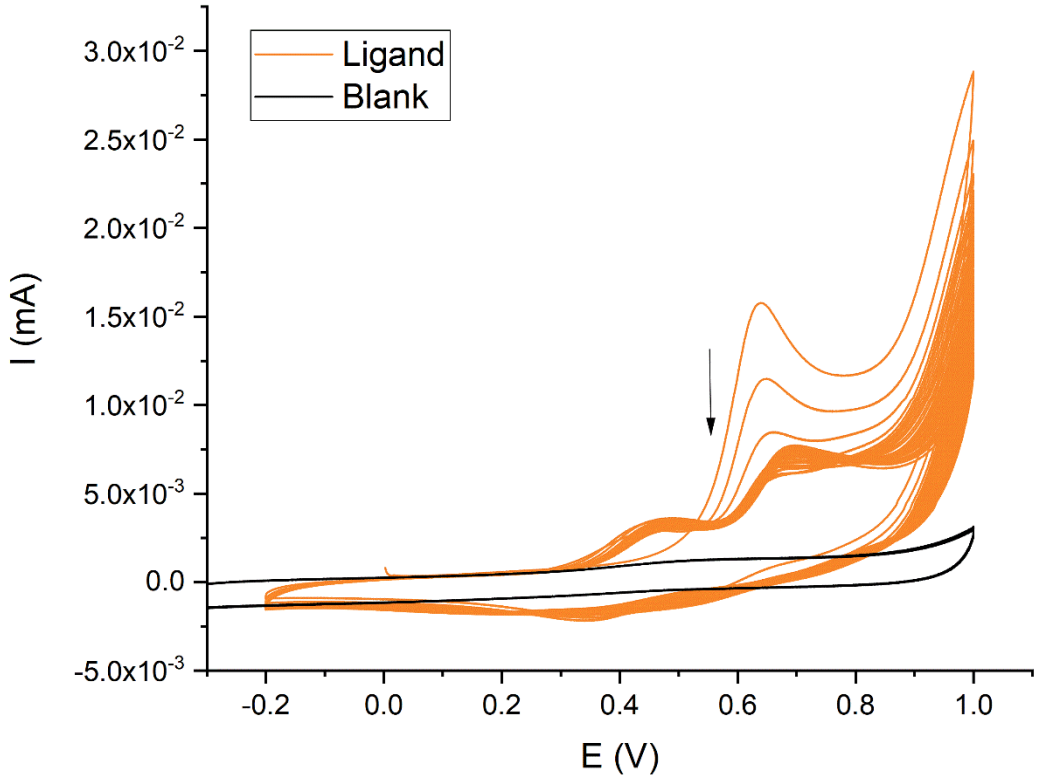

Figure S1. *CV of 0.5 mM 3(OMe)salophen recorded at 100 mV/s between -0.2 V and 1.0 V (30 cycles) in 0.1 M TBAHFP/MeCN*

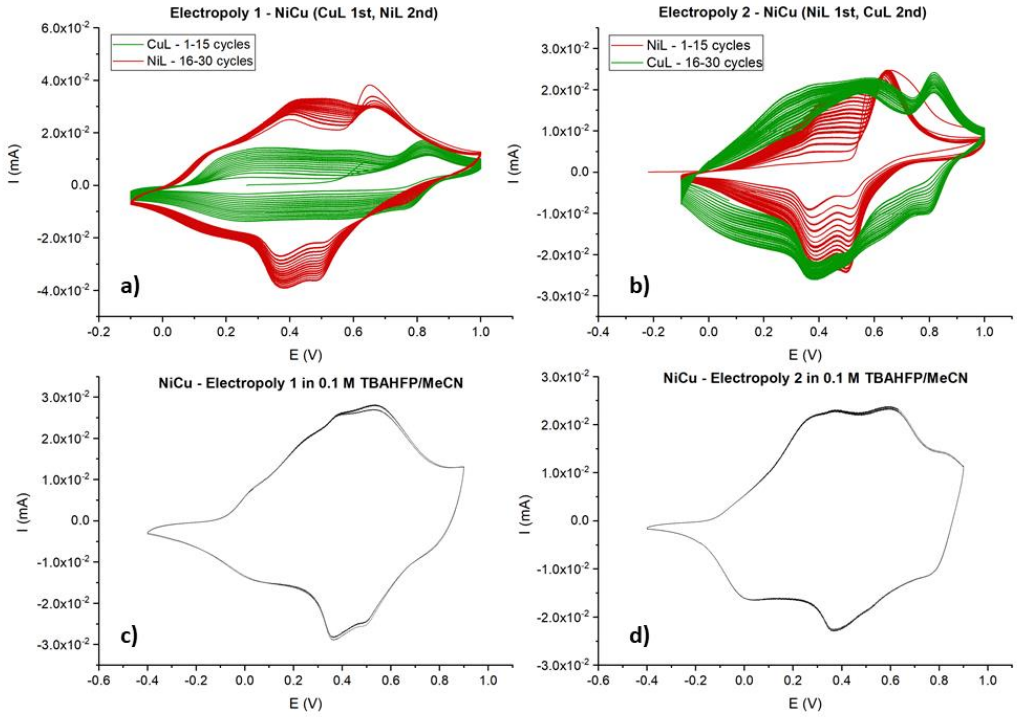

Figure S2 *Electropolymerization voltammograms of a bilayer made of poly-CuL (first) and poly-NiL (second) (a) and of poly-NiL (first) and poly-CuL (second) (b). Characterization CVs of the corresponding polyCuL/polyNiL (c) and polyNiL/polyCu (d) in 0.1 M TBAHFP/MeCN recorded at 100 mV/s*

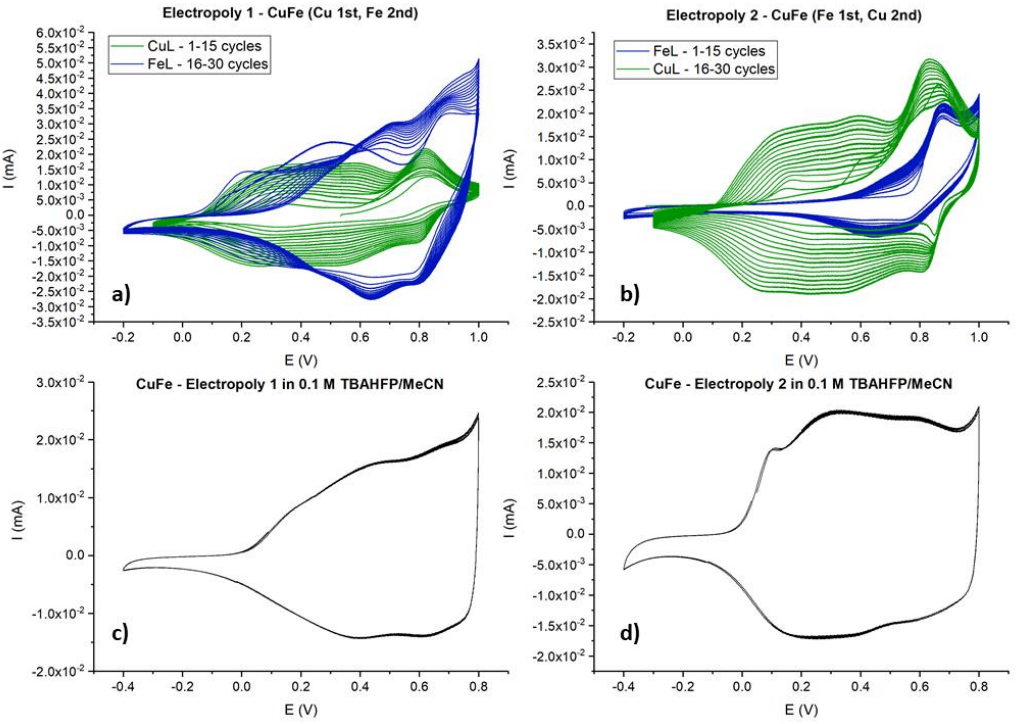

Figure S3. *Electropolymerization voltammograms of a bilayer made of poly-CuL (first) and poly-FeL (second) (a) and of poly-FeL (first) and poly-CuL (second) (b). Characterization CVs of the*

corresponding polyCuL/polyFeL (c) and polyFeL/polyCu (d) in 0.1 M TBAHFP/MeCN recorded at 100 mV/s

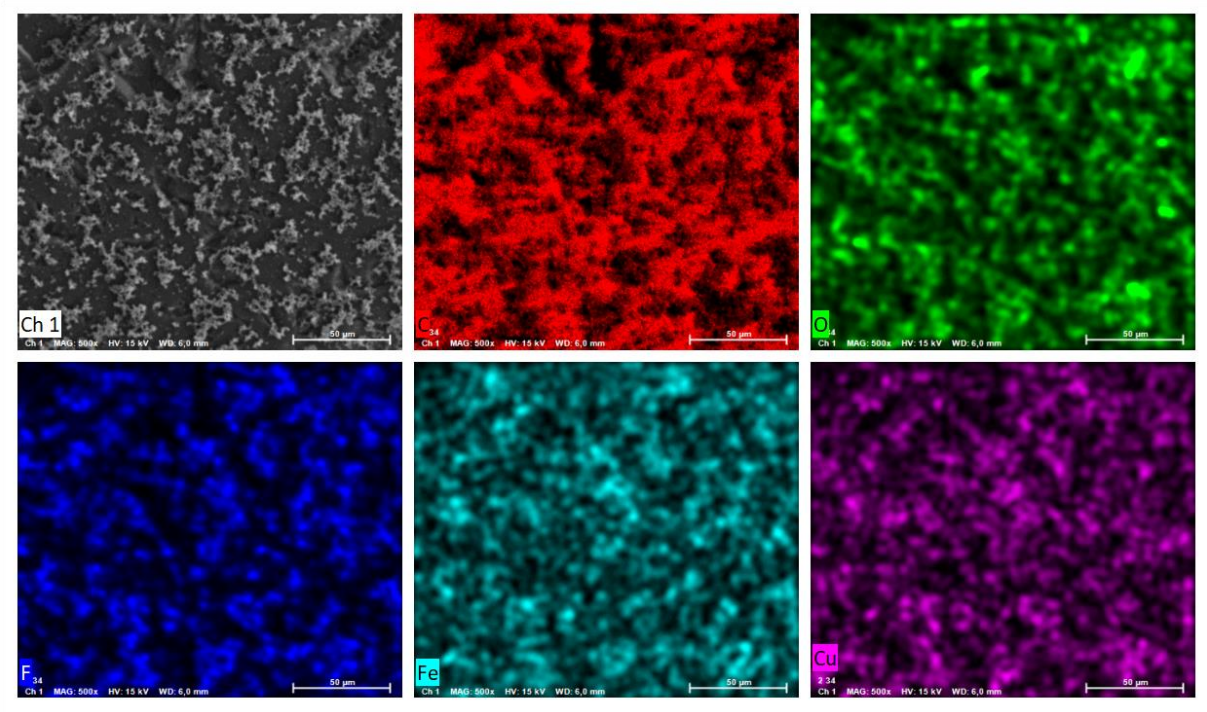

***Figure S4a**. Elemental mapping by backscattered electrons for poly-CuFe*

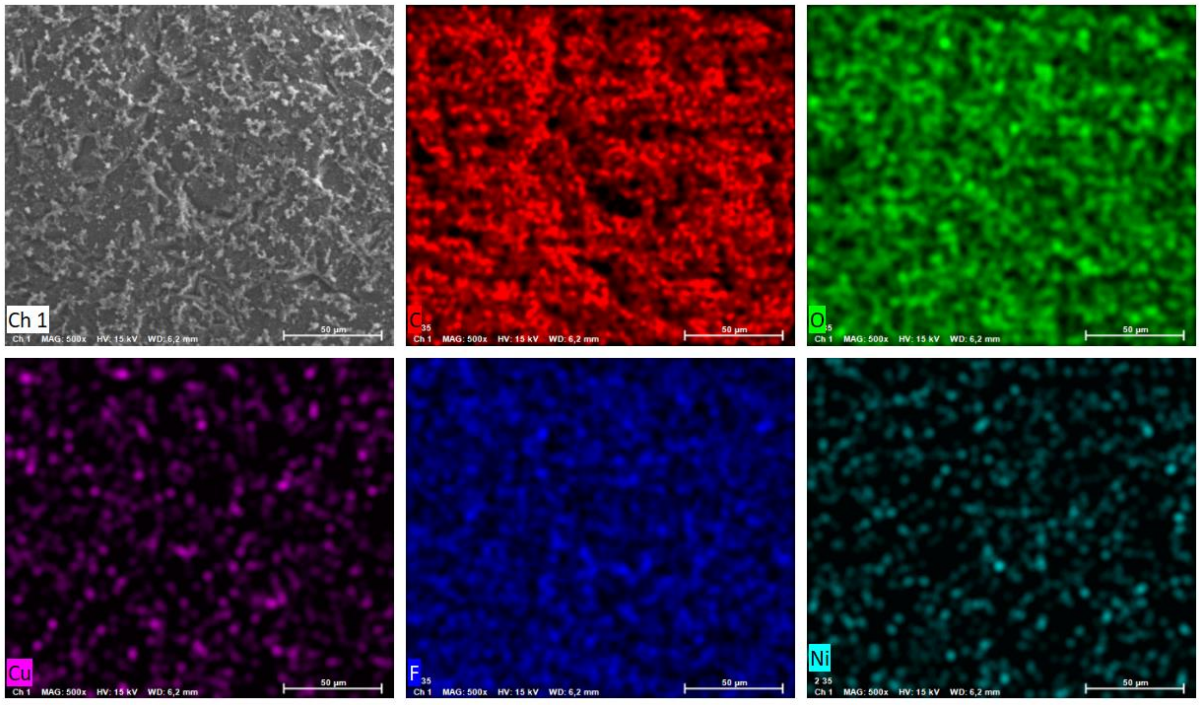

***Figure S4b.** Elemental mapping by backscattered electrons for poly-NiCu*

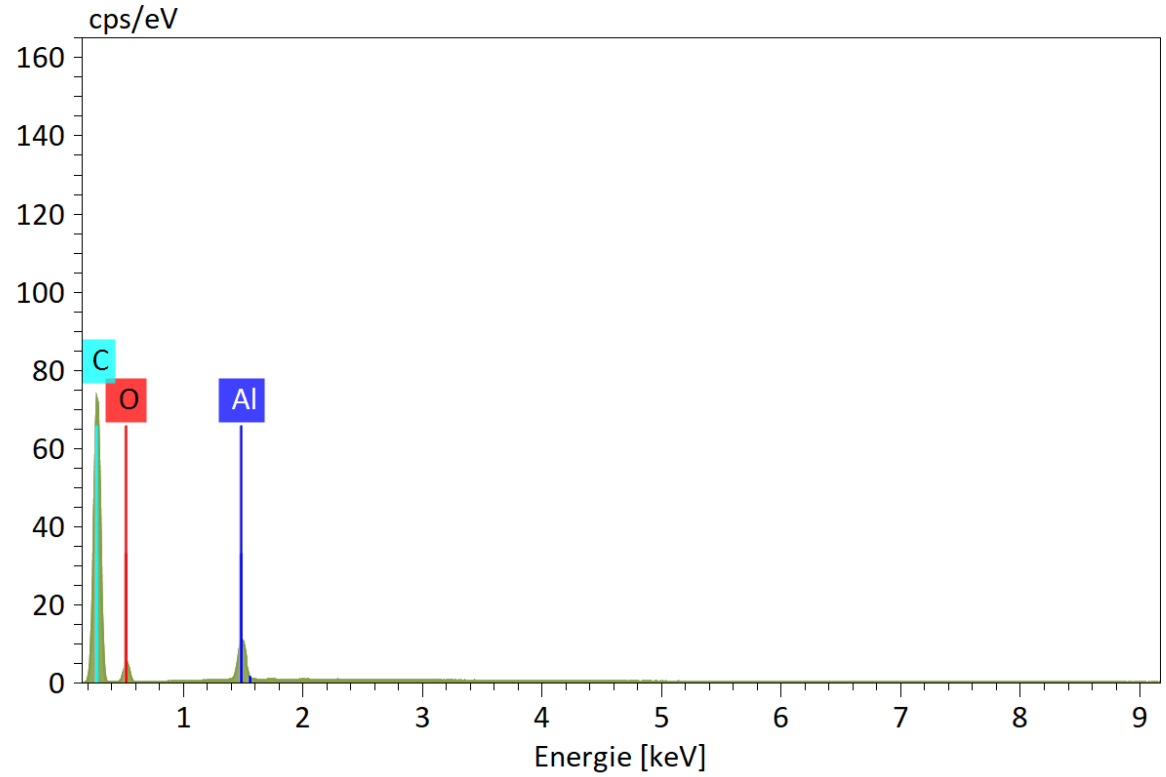

Figure S5a. *EDX spectra for unmodified GC electrode*

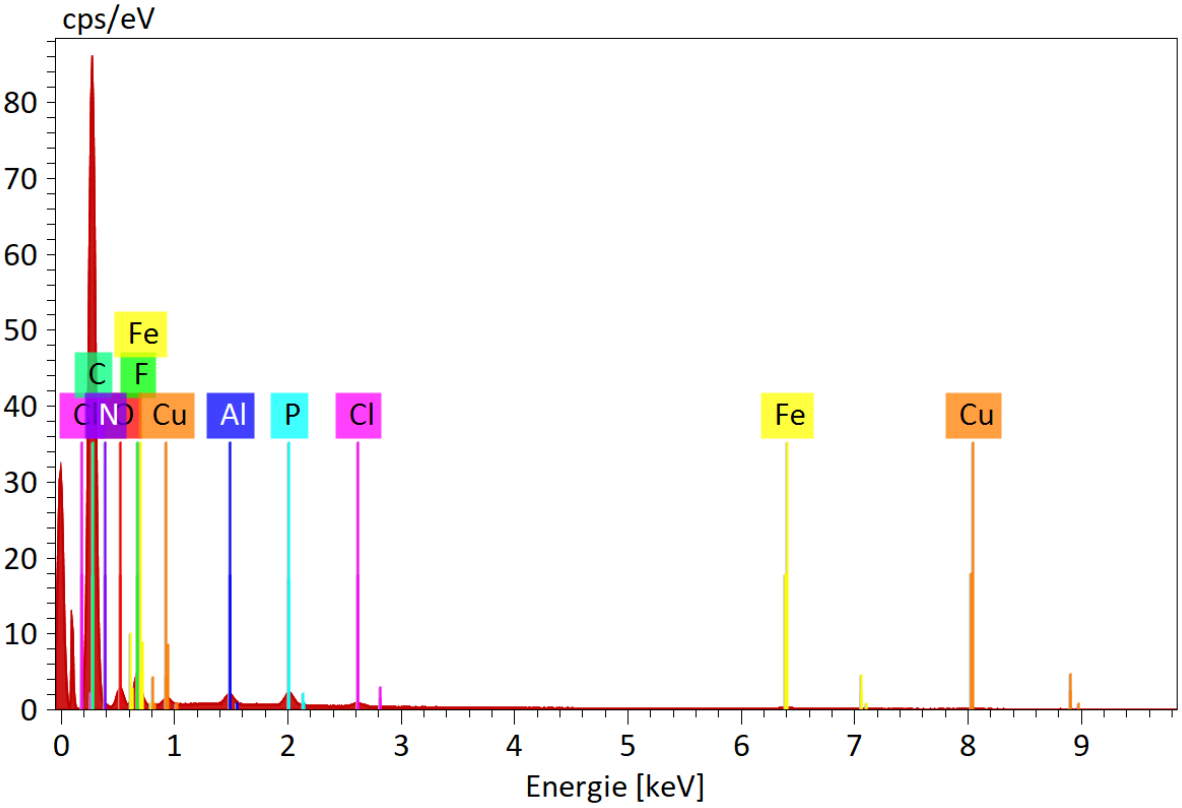

Figure S5b. *EDX spectra for poly-CuFe*

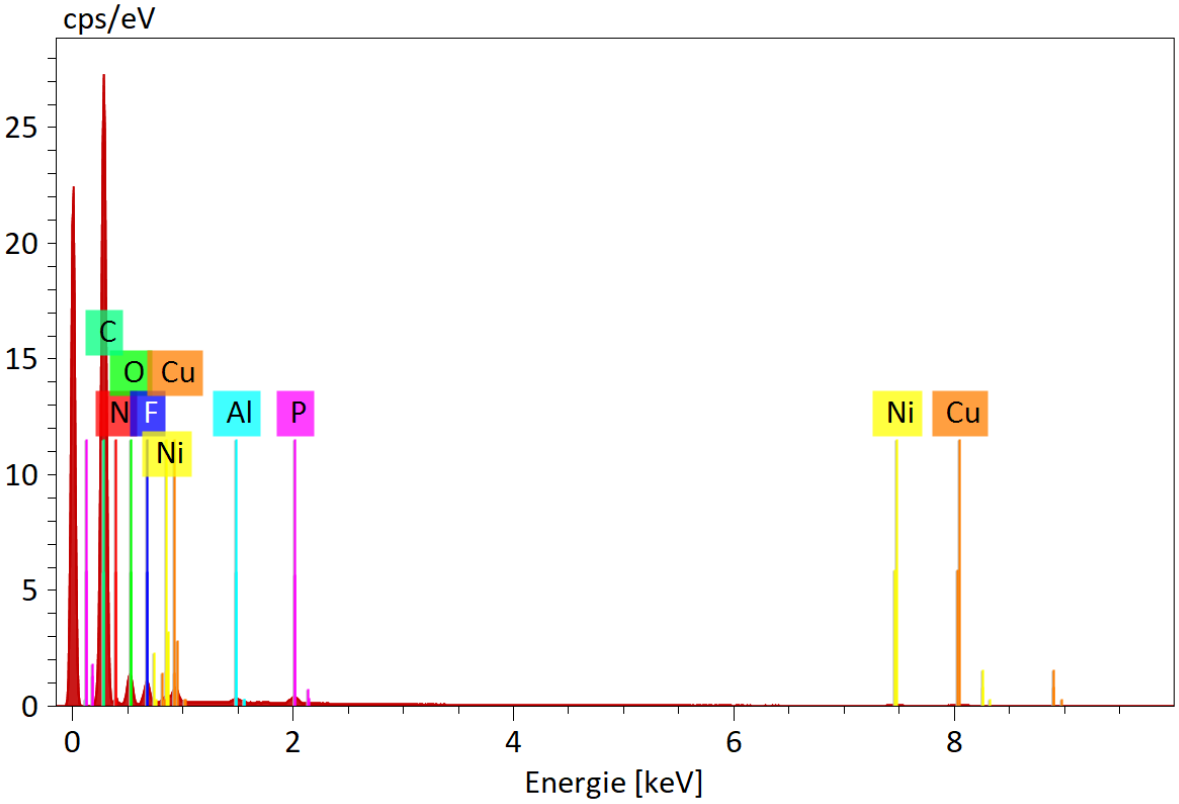

***Figure S5c**. EDX spectra for poly-NiCu*

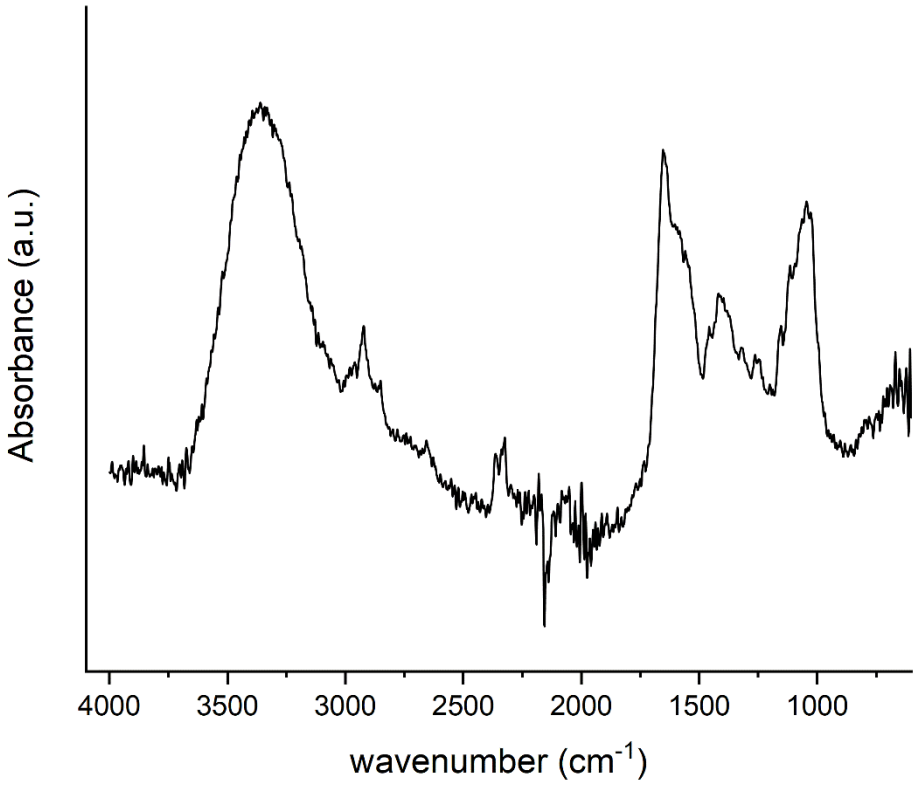

***Figure S6.** FT-ATR spectrum of unmodified GC electrode*

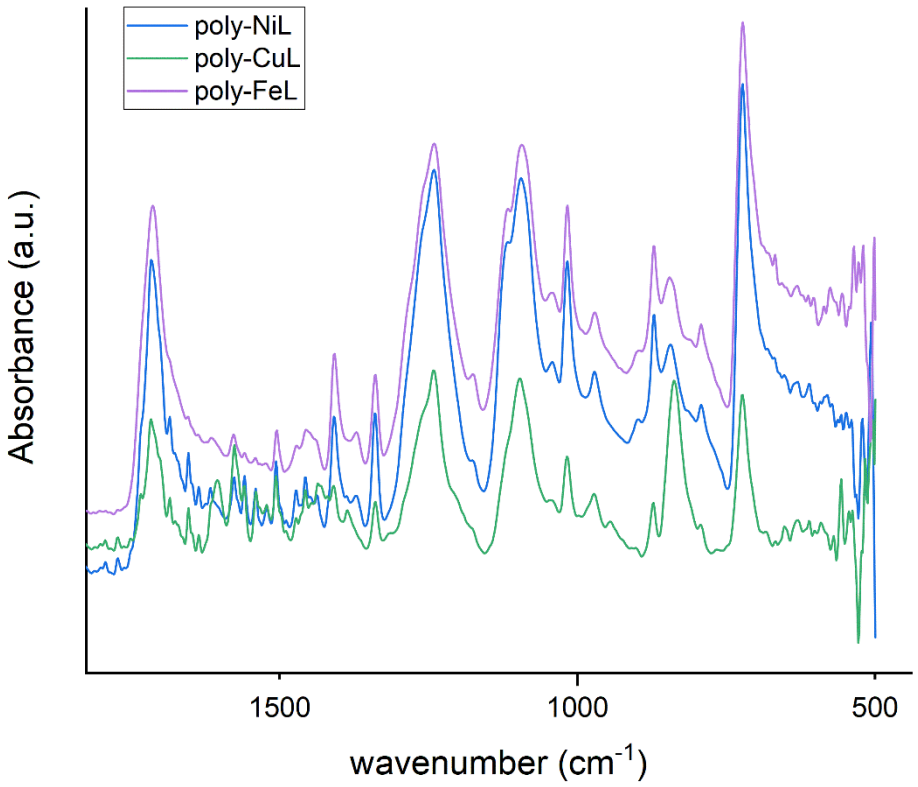

Figure S7. *FT-ATR spectra of films formed by electropolymerization of single complexes*

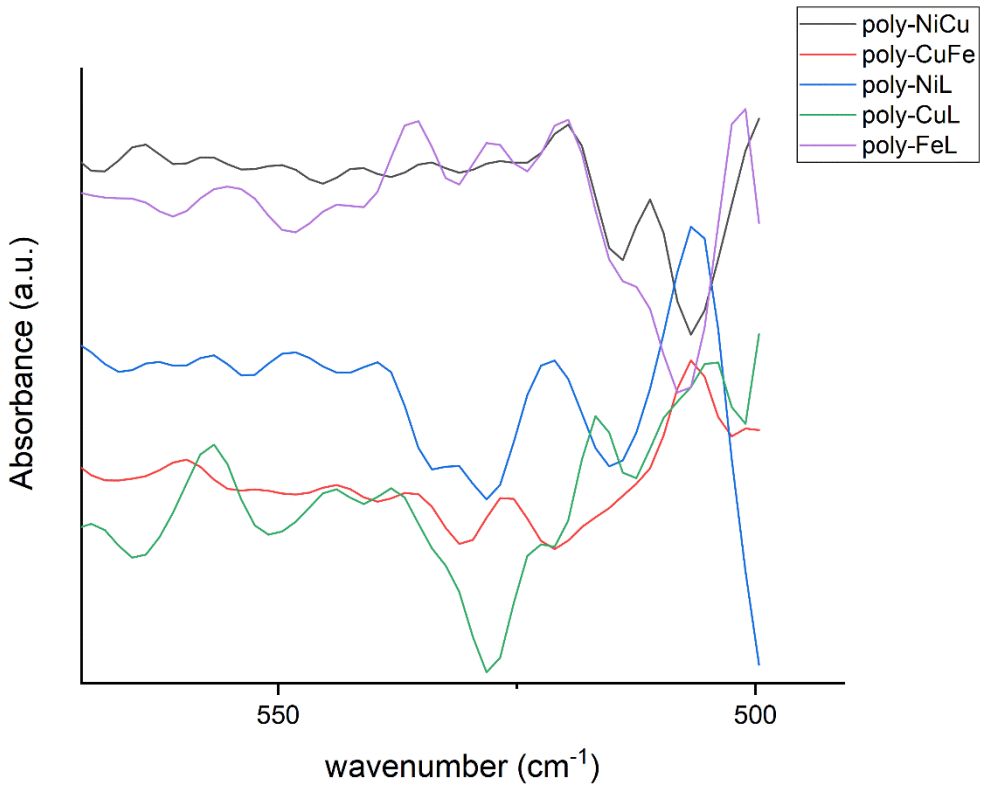

Figure S8*. FT-ATR spectra of all films in the 570 cm^{-1} – 500 cm^{-1} range*

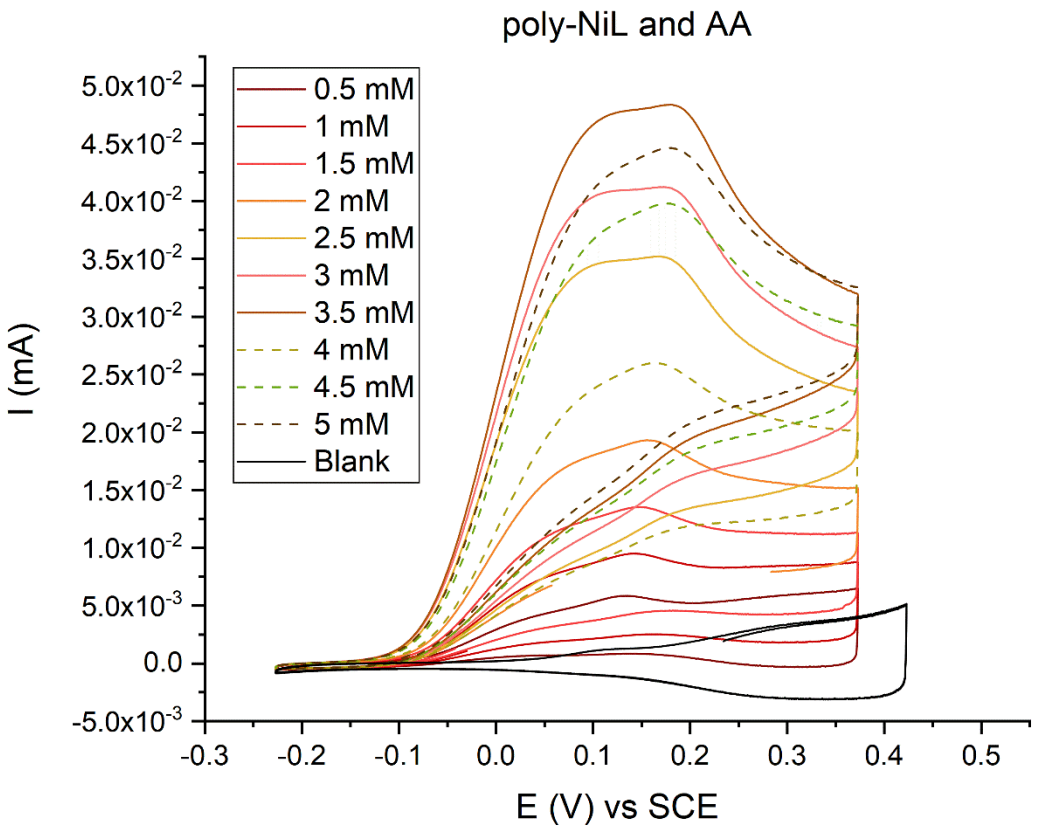

Figure S9. *CVs recorded for poly-NiL by adding increasing amounts of ascorbic acid (50 mV/s scan rate)*

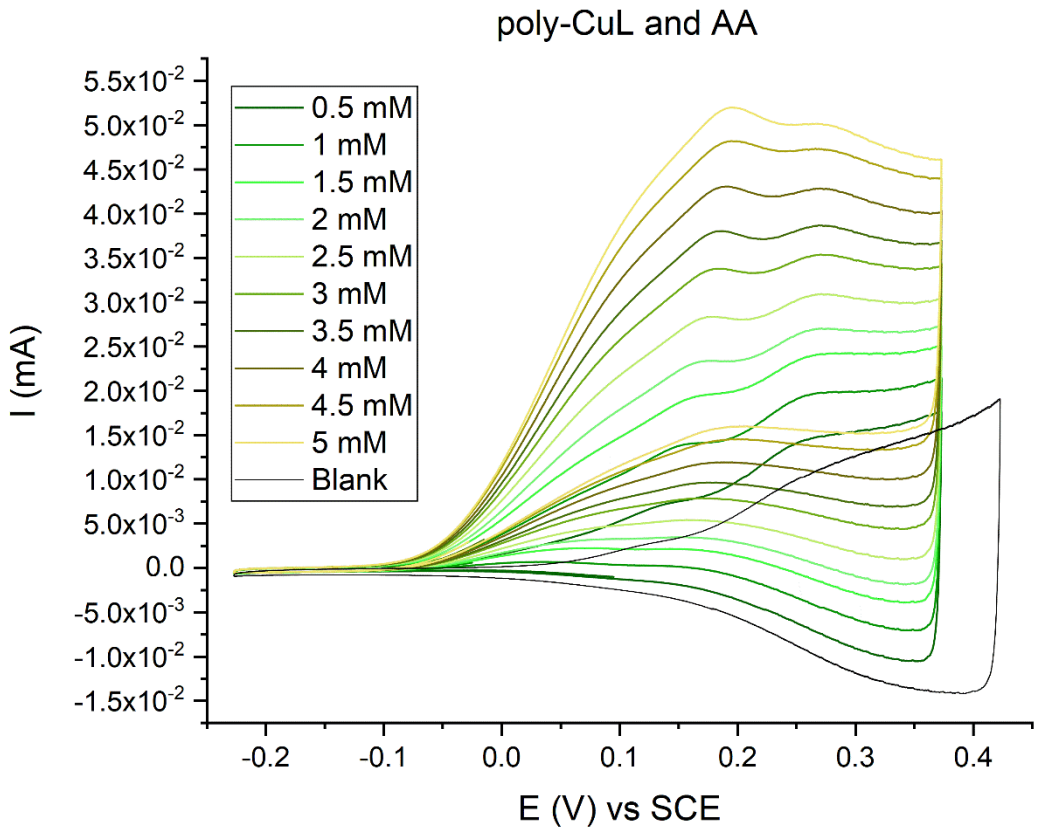

Figure S10. *CVs recorded for poly-CuL by adding increasing amounts of ascorbic acid (50 mV/s scan rate)*

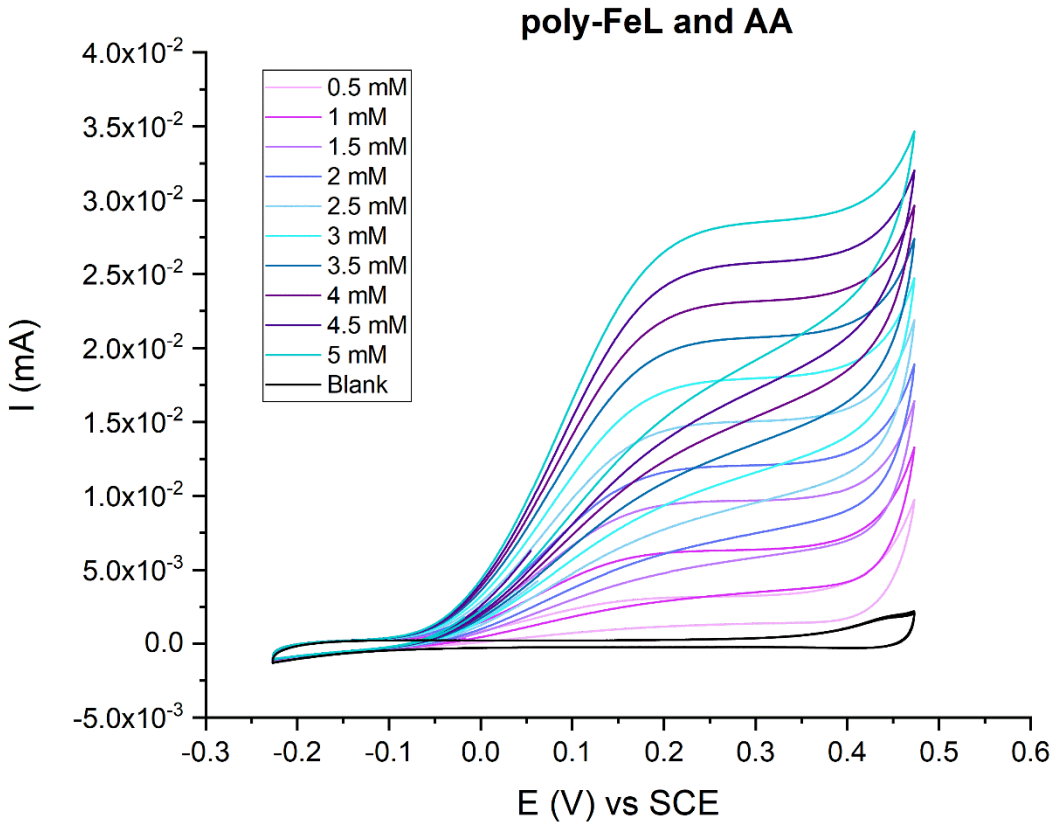

Figure S11. *CVs recorded for poly-FeL by adding increasing amounts of ascorbic acid (50 mV/s scan rate)*

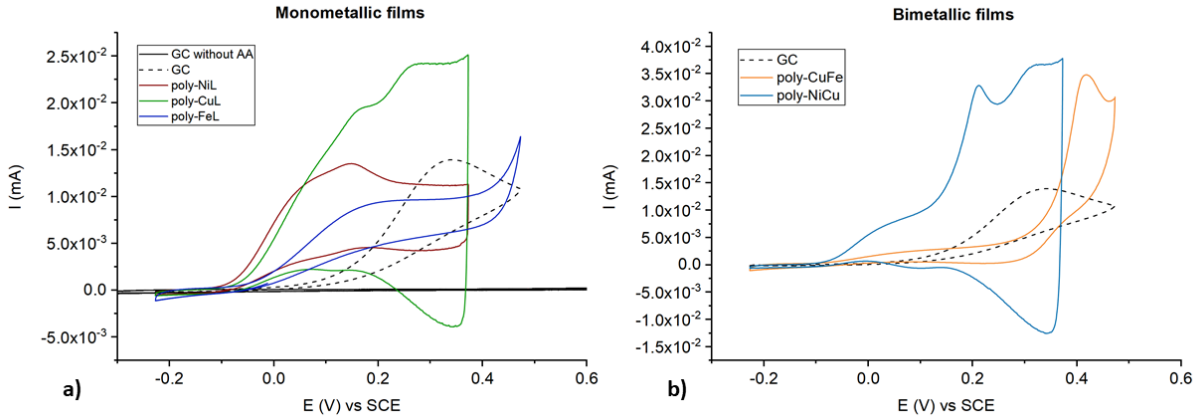

Figure S12. *AA (C=1.5 mM) oxidation profile recorded at 50 mV/s for monometallic (a) and bimetallic (b) films*