

Supporting information

for

**Exploring RAFT Polymerization for the Synthesis
of Bipolar Diblock Copolymers and their
Supramolecular Self-Assembly**

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Rachel K. O'Reilly^{b,}*

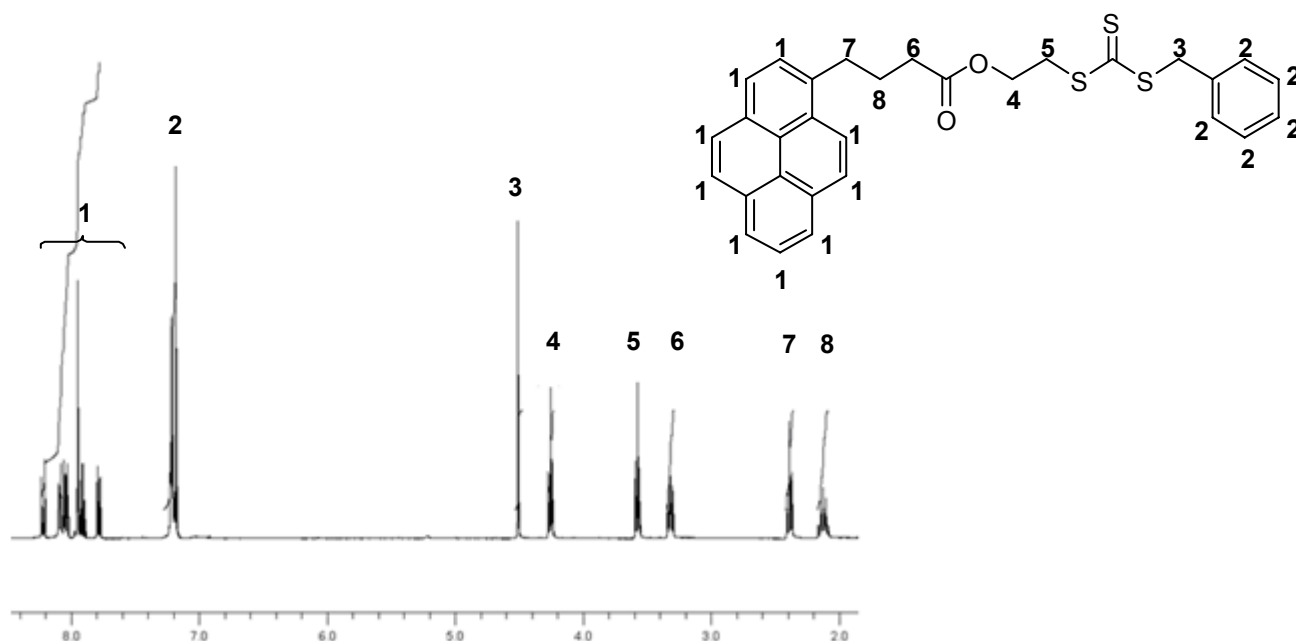
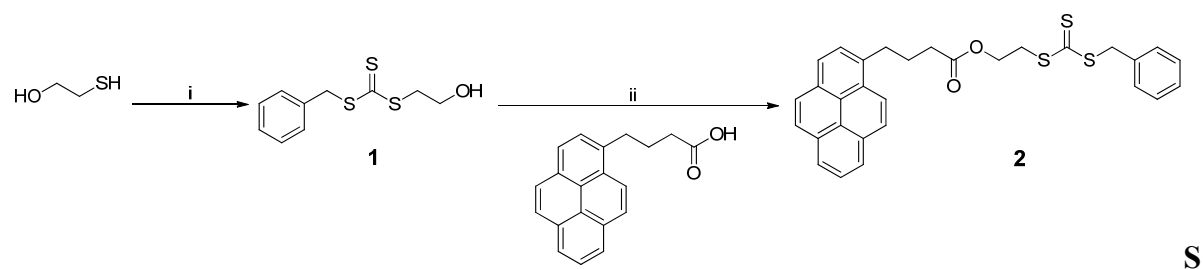
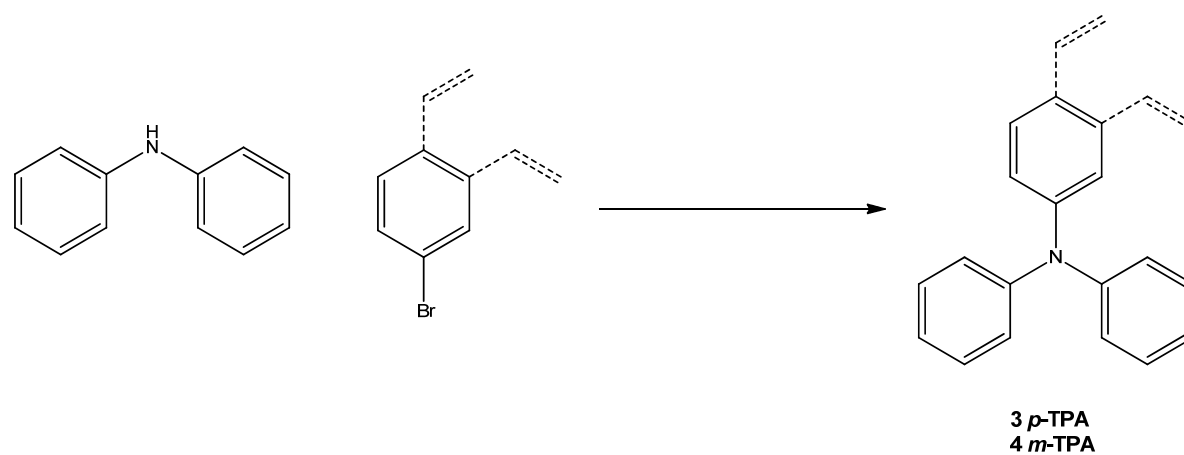


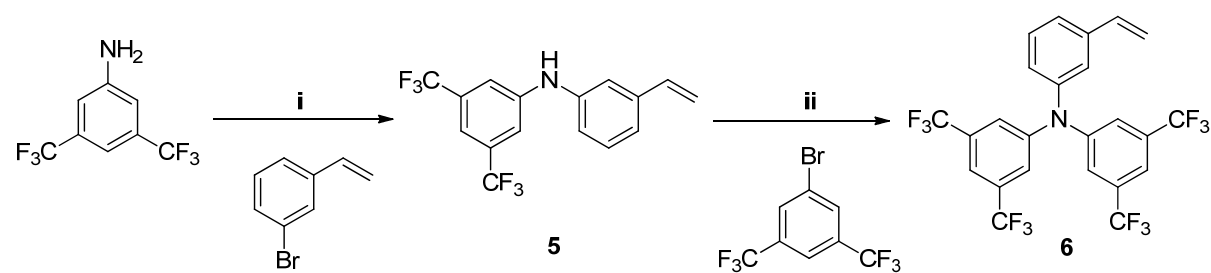
Figure S1 - ¹H NMR spectrum of **2** in CDCl₃.



Scheme S1 – Synthesis of CTA **2**. Conditions: (i) K_3PO_4 , CS_2 , $BzBr$, THF, room temperature; (ii) $EDCl.HCl$, DMAP, dichloromethane, room temperature



Scheme S2 - Conditions: $Pd_2(dba)_3$, $P(t-Bu)_3$, NaO^tBu , toluene, room temperature.



Scheme S3 - Conditions: i and ii: $Pd_2(dba)_3$, $P(t-Bu)_3$, NaO^tBu , 1,4-dioxane, room temperature.

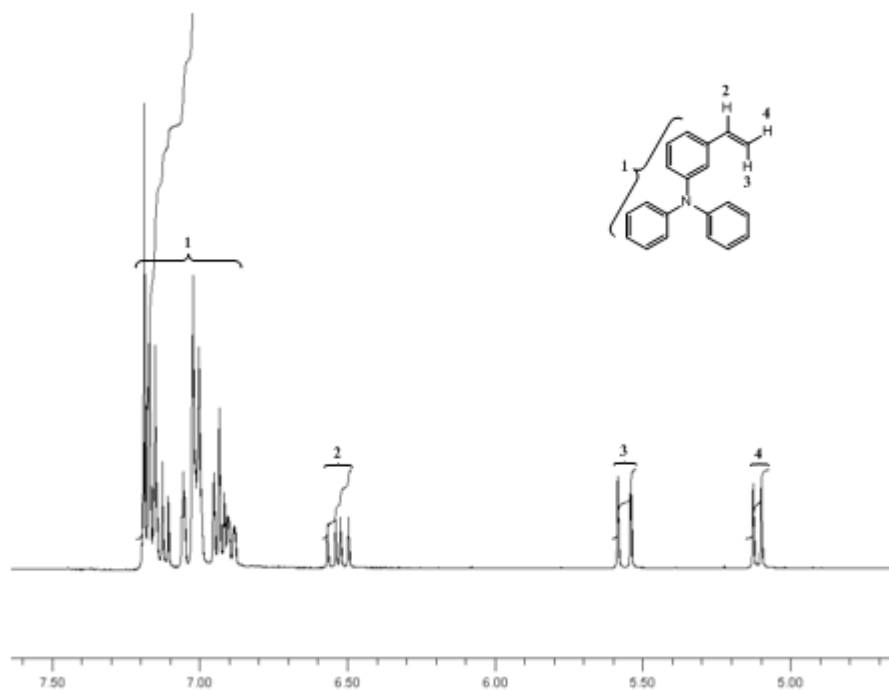


Figure S2 – ^1H NMR spectrum of **4** in CDCl_3 .

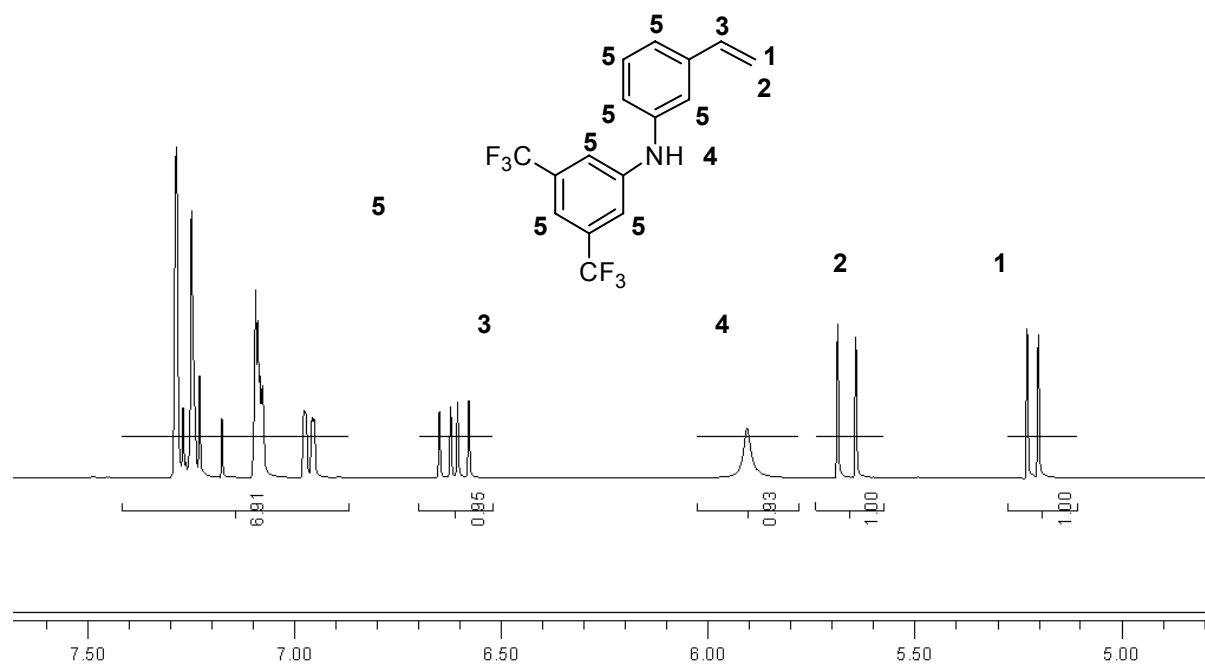


Figure S3 - ^1H NMR spectrum of **5** in CDCl_3 .

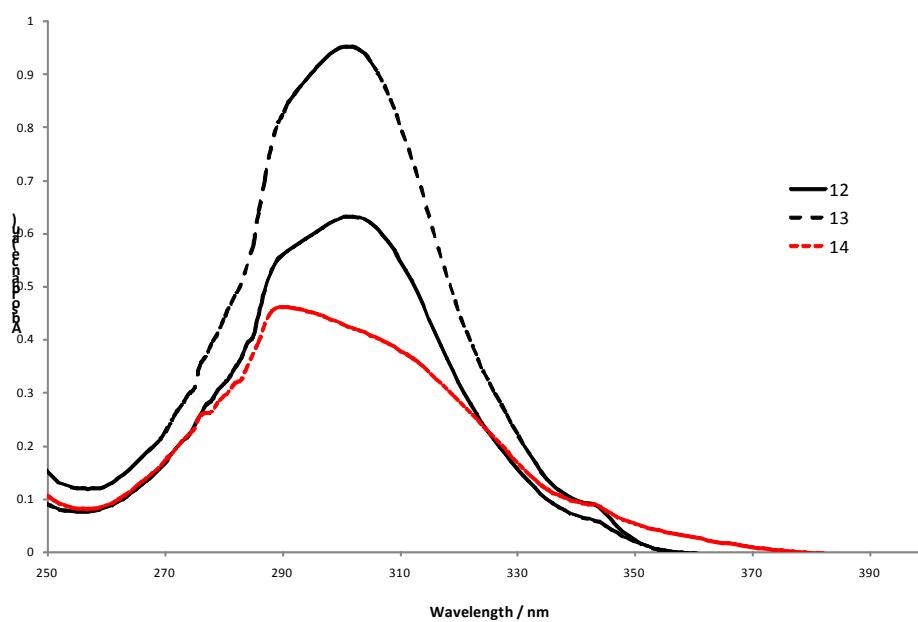


Figure S4 – UV-vis trace of polymers **12**, **13** and **14** in THF (all at *ca.* 0.01 mg/mL).

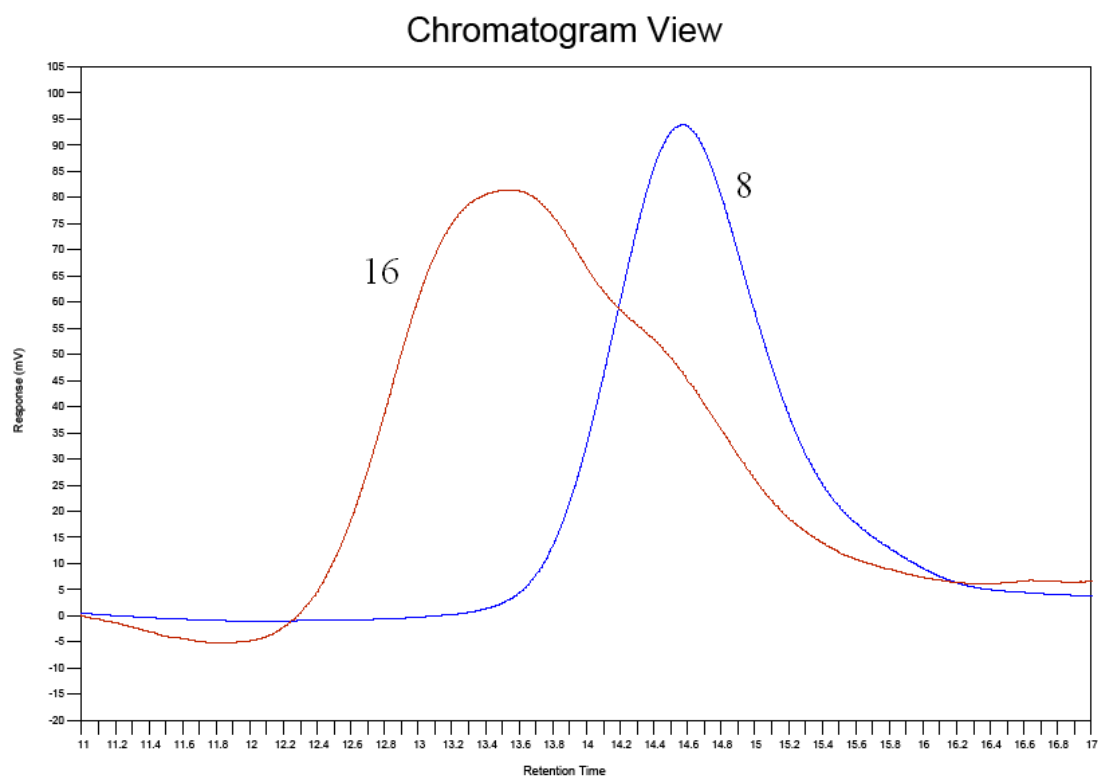


Figure S5 – RI detector GPC (THF) overlay of polymer **8** and **16**.

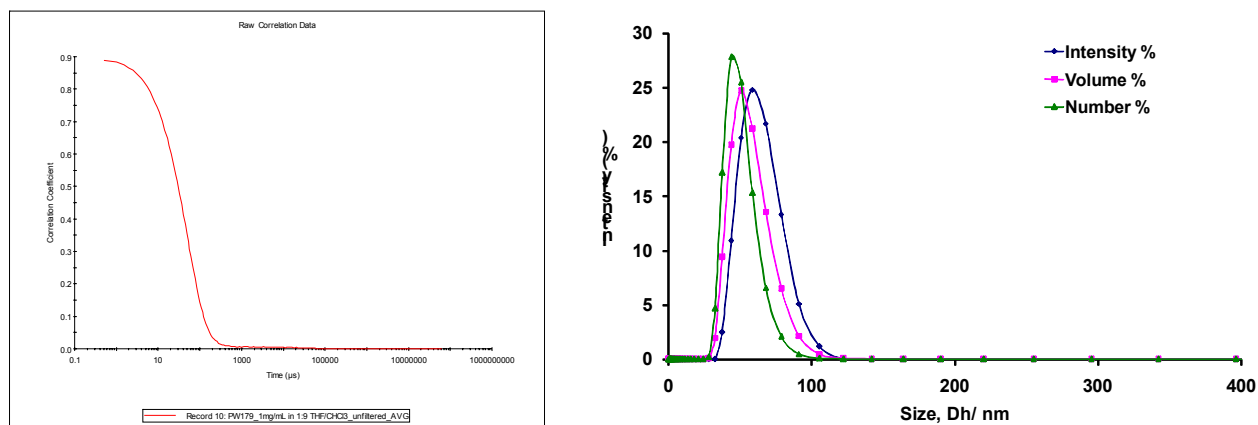


Figure S6 – DLS traces and correlation function for **22**.

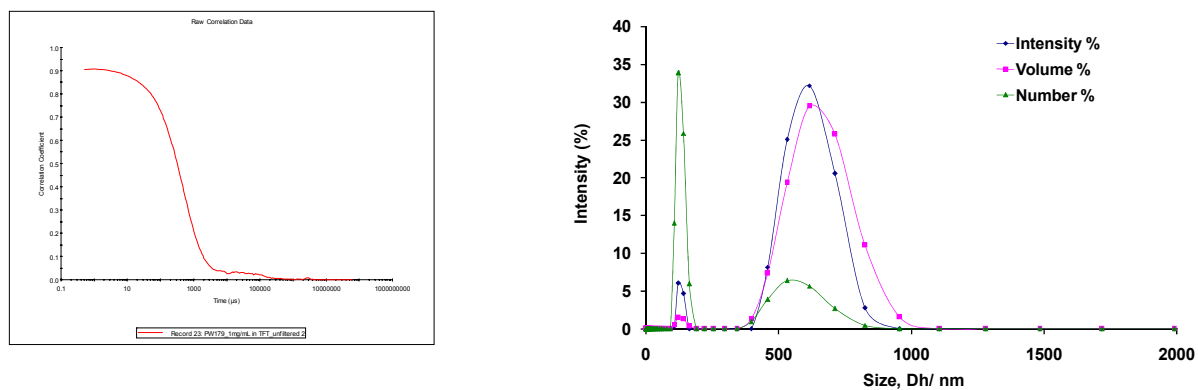


Figure S7 – DLS traces and correlation function for **23**.

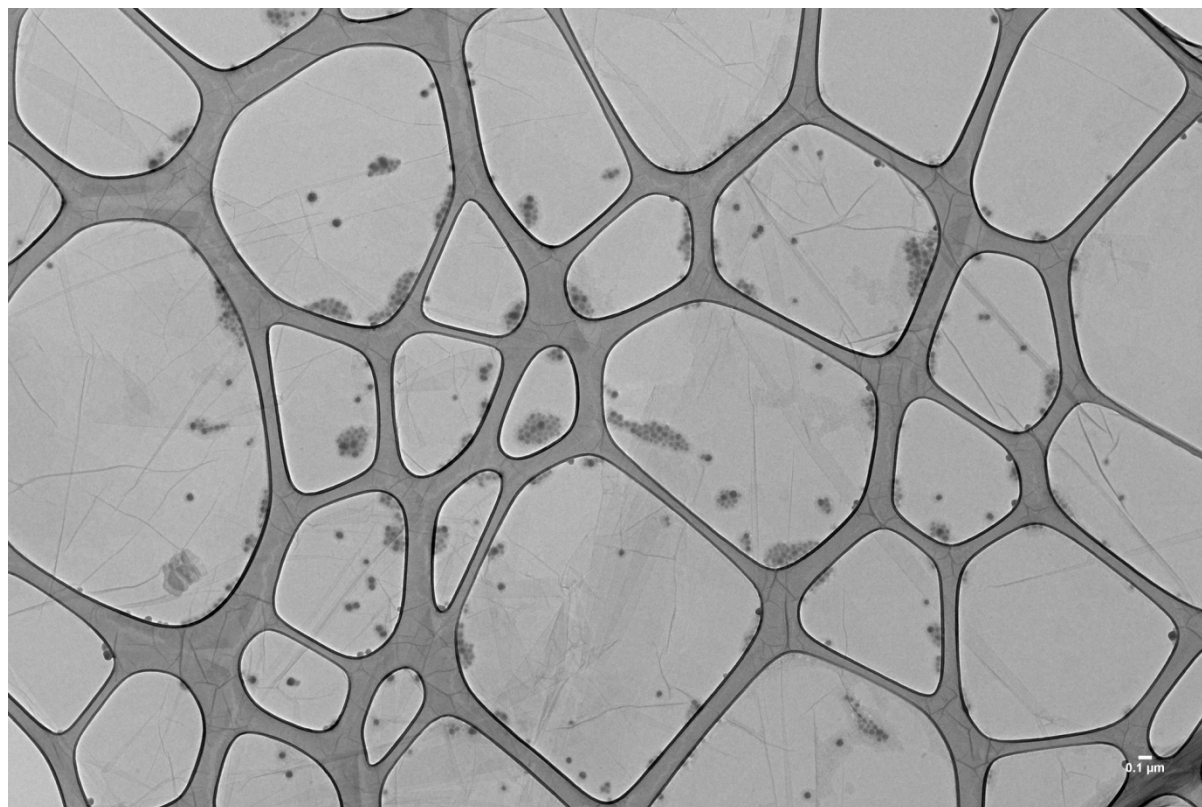


Figure S8 – Unstained TEM image for **22** using a graphene oxide support.

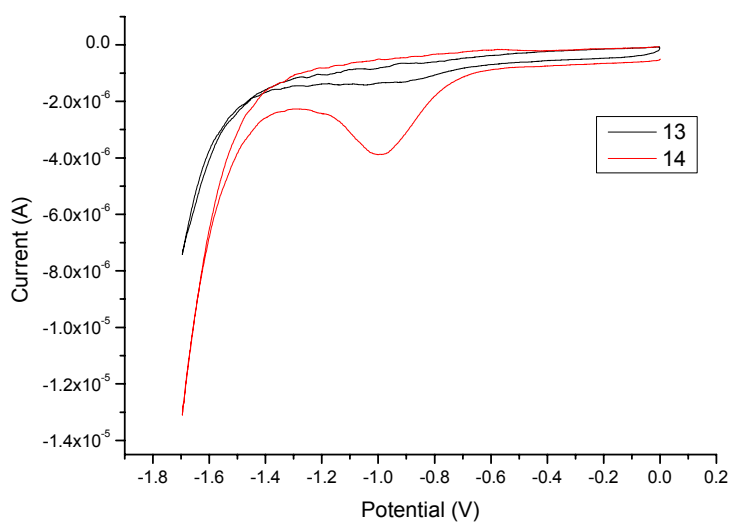


Figure S9 – CV trace of thin films of polymer **13** and **14** (reductive sweep)

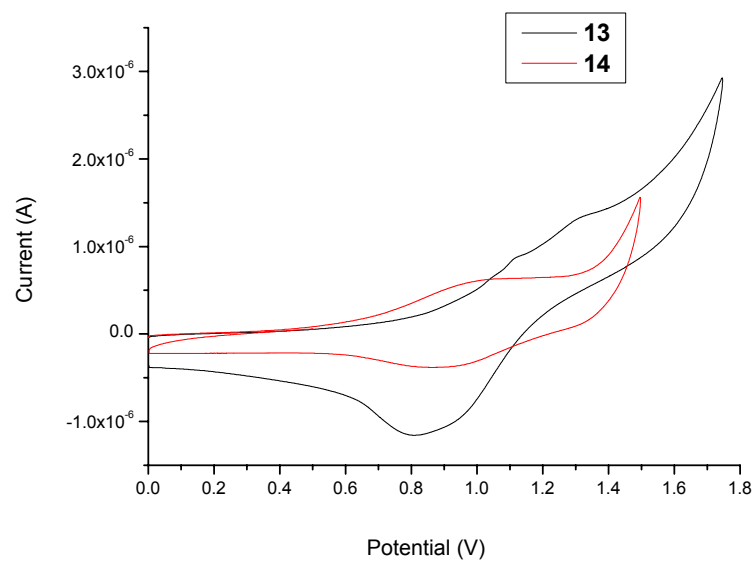


Figure S10 – CV trace of thin films of polymer **13** and **14** (oxidative sweep).