Electronic Supplementary Material (ESI) for Polymer Chemistry.

SUPPORTING INFORMATION

Thiol-Reactive Thiosulfonate Group Containing Copolymers: Facile Entry to Disulfide-Mediated Polymer Conjugation and Redox-Responsive Functionalizable Networks

Mehmet Arslan,[*a] Rana Sanyal [b,c] and Amitav Sanyal [*b,c]

[a] *Department of Polymer Engineering, Faculty of Engineering, Yalova University, Yalova, 77200, Turkey. E-mail: mehmet.arslan@yalova.edu.tr; Tel: +90-226-811-5959.*
[b] *Department of Chemistry, Bogazici University, Bebek, Istanbul, 34342, Turkey*
[c] *Center for Life Sciences and Technologies, Bogazici University, Bebek, Istanbul, 34342, Turkey. E-mail: amitav.sanyal@boun.edu.tr; Tel: +90-212-359-7613; Fax: +90-212-287-2467.*

Contents:

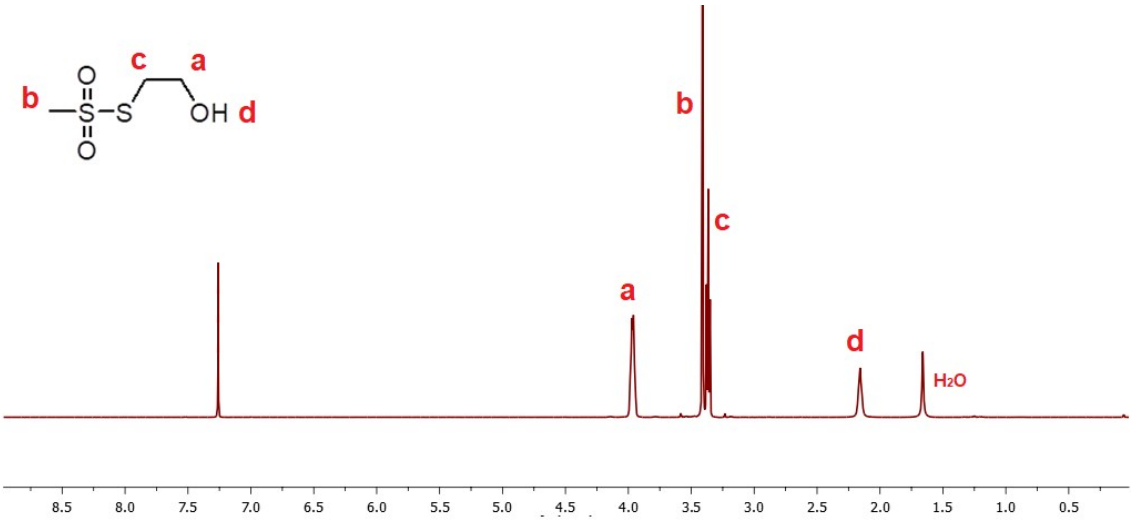

Figure S1. ^{1}H NMR spectrum of MTOH.

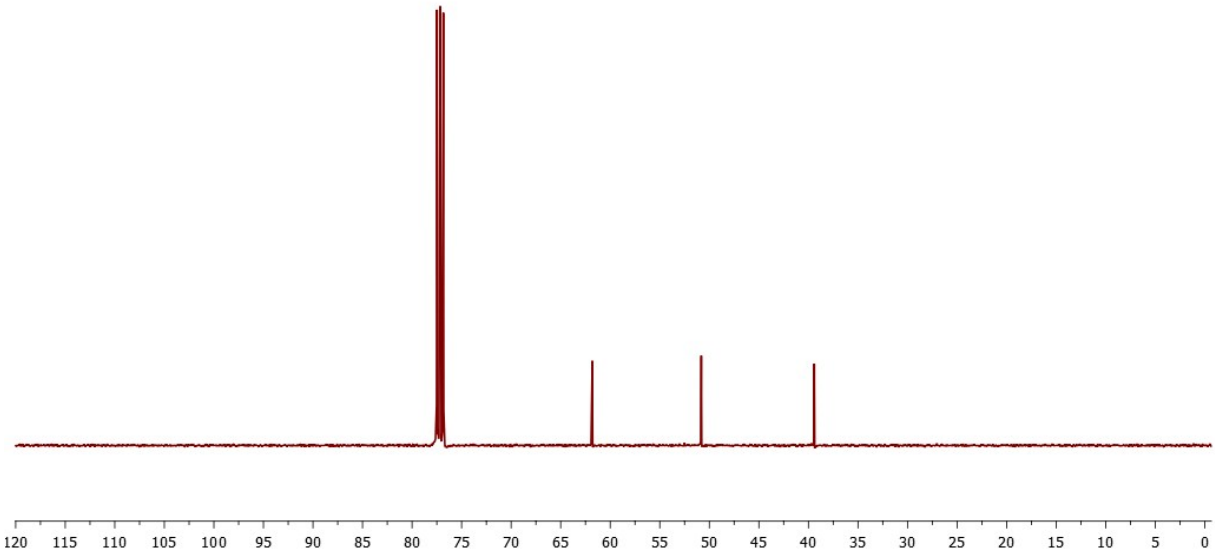

Figure S2. ^{13}C NMR spectrum of MTOH.

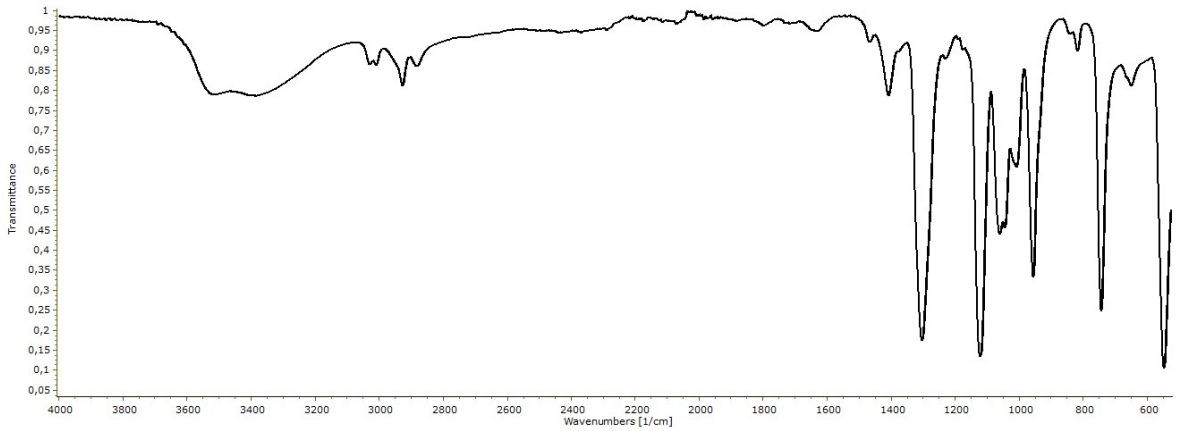

Figure S3. FT-IR spectrum of MTOH.

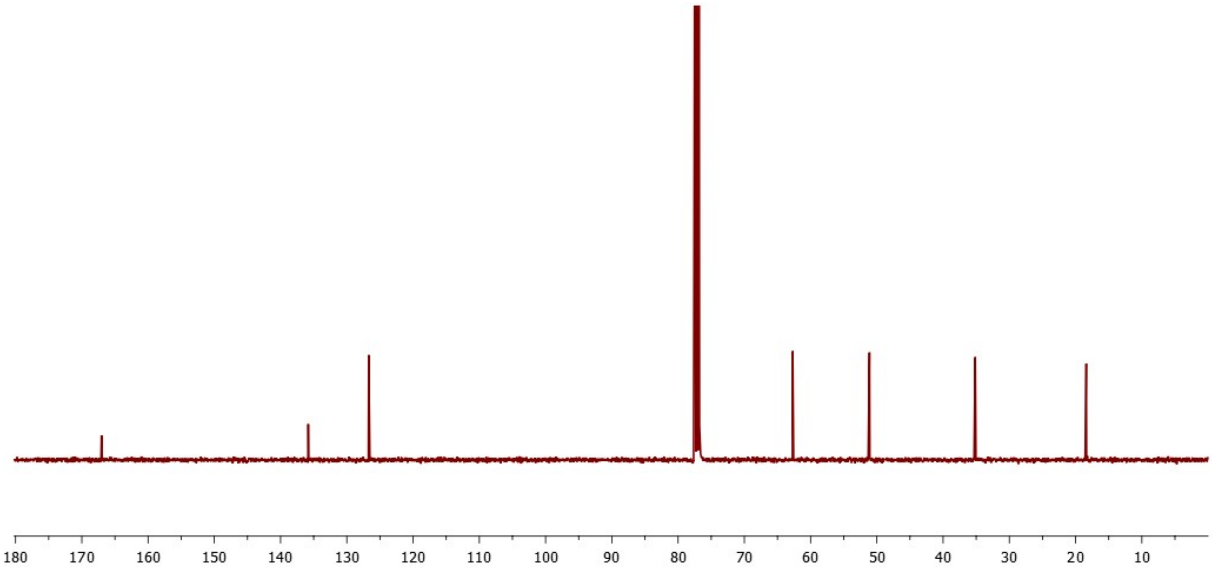

Figure S4. ^{13}C NMR spectrum of MTMA monomer.

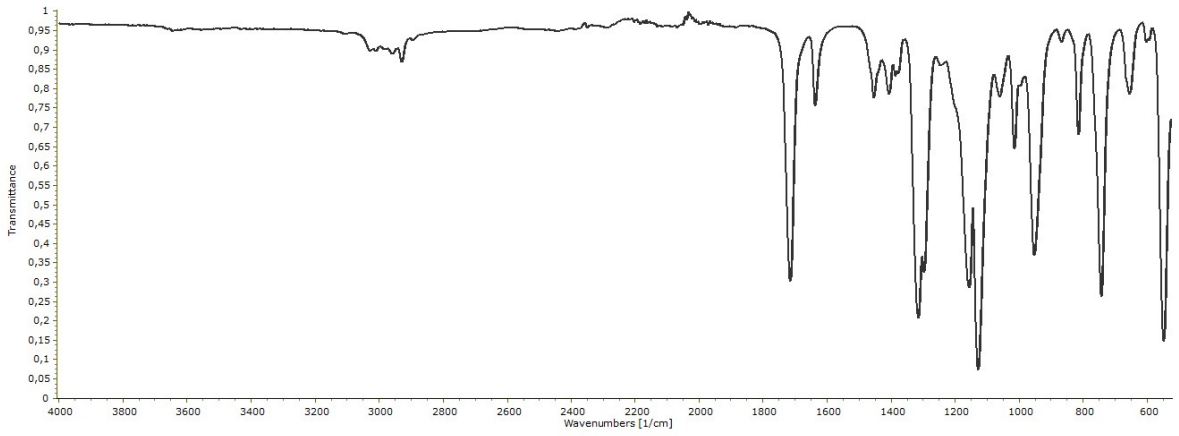

Figure S5. FT-IR spectrum of MTMA.

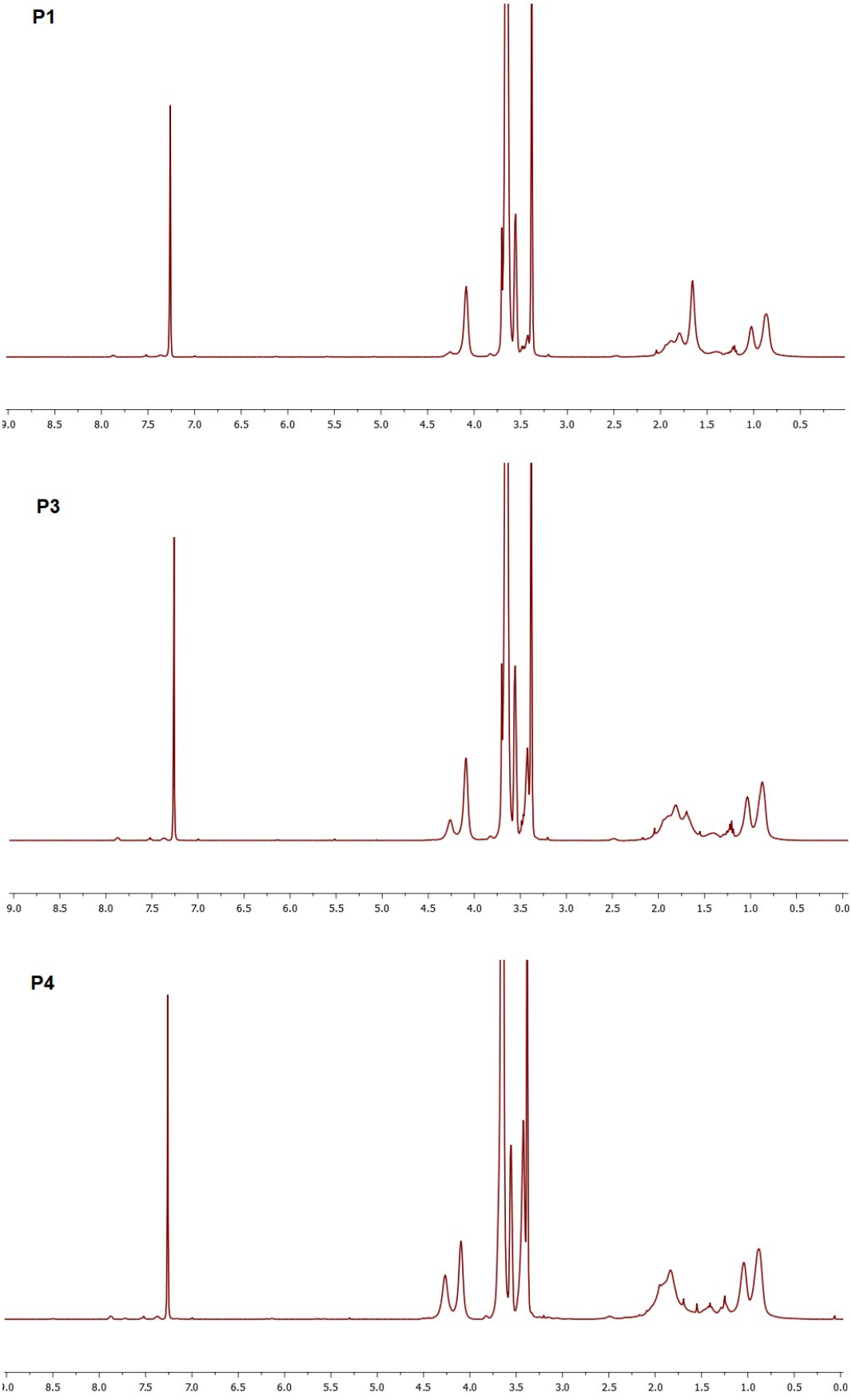

Figure S6. ^{1}H NMR spectra of copolymers P1, P3 and P4 (in $CDCl_3$).

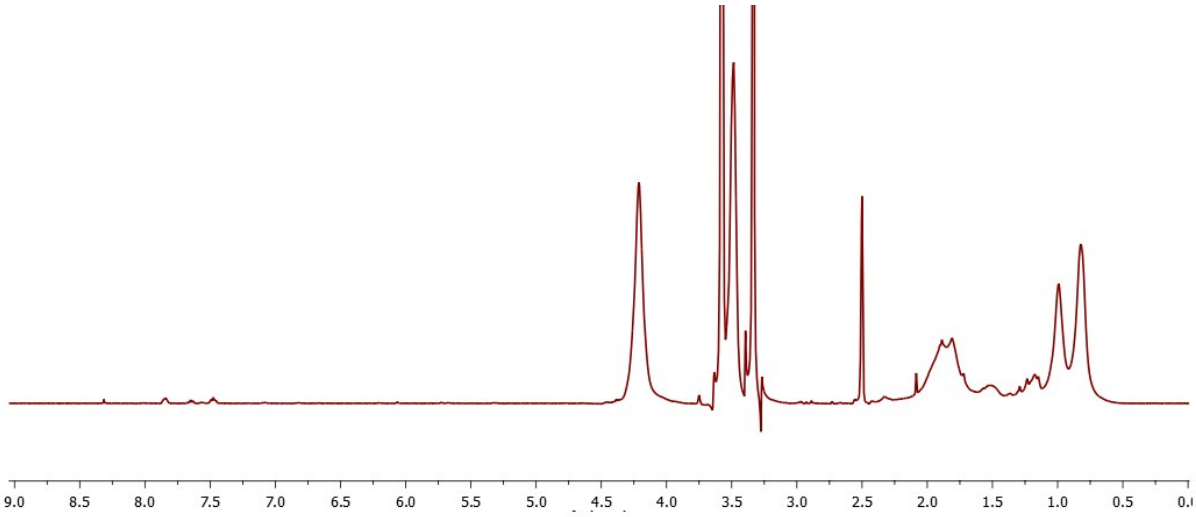

Figure S7. ^{1}H NMR spectrum of homopolymer P5 (in DMSO-*d6*).

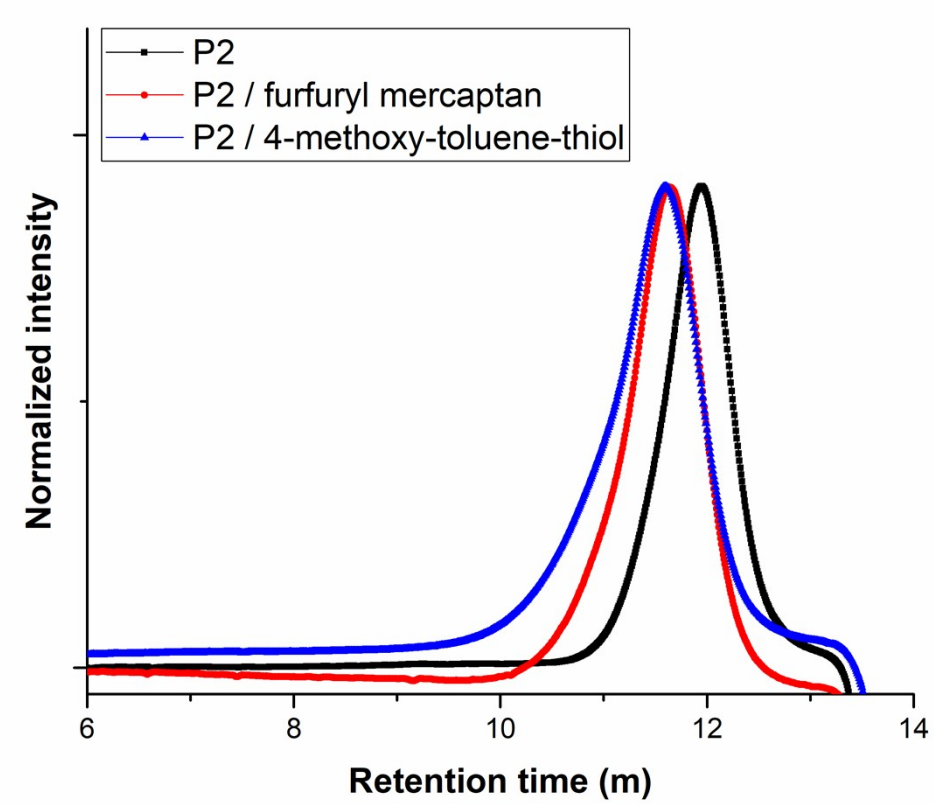

Figure S8. SEC traces of P2 and thiol-modified copolymers.

Table S1. M_n and PDI values of P2 and thiol-modified copolymers.

Entry	Polymer[a]	$M_{n,SEC}$[a] (g/mol)	M_w/M_n[a]
1	P2	12150	1.28
2	P2 / 4-methoxy-α-toluene-thiol	14800	1.30
3	P2 / furfuryl mercaptan	15000	1.31

[a] Using SEC eluted with DMAC, using PMMA standards.

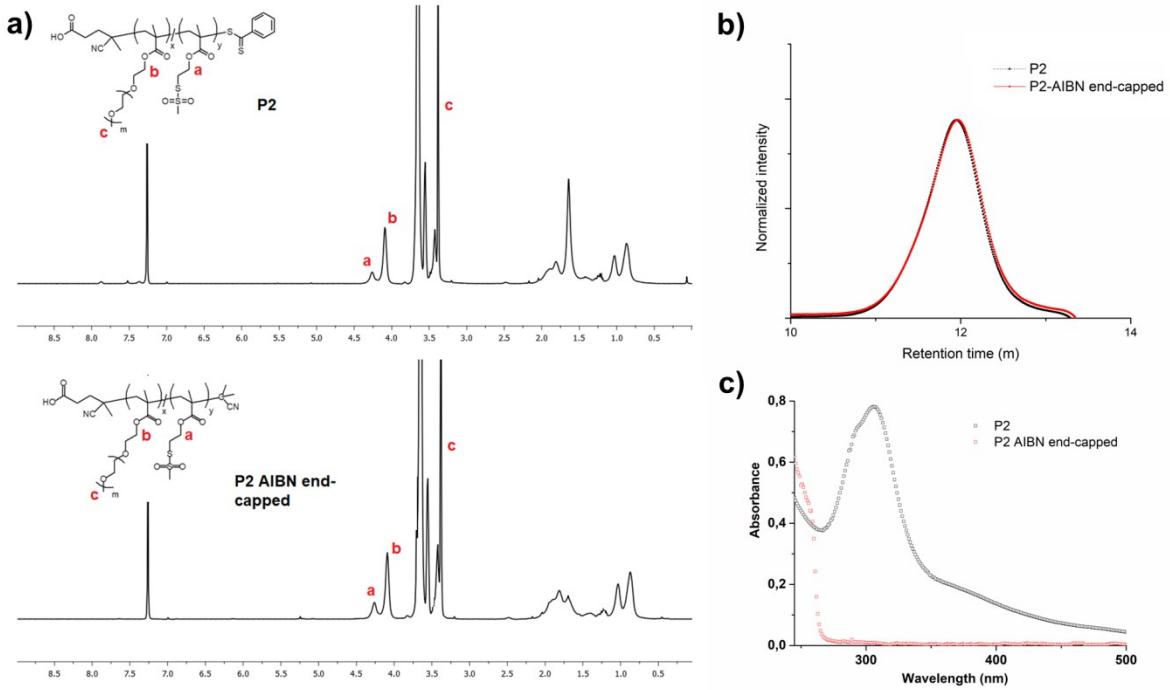

Figure S9. a) ^{1}H NMR, b) SEC and c) UV characterization of AIBN end-capped copolymer P2. (UV-Vis data in chloroform)