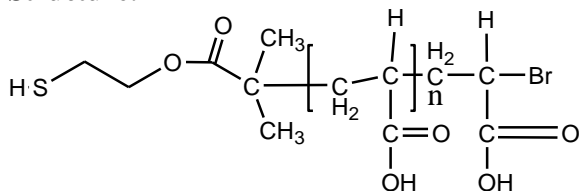


Sample Name: Thiol terminated Poly (acrylic acid)

Sample #: P41183-AASH

Structure:

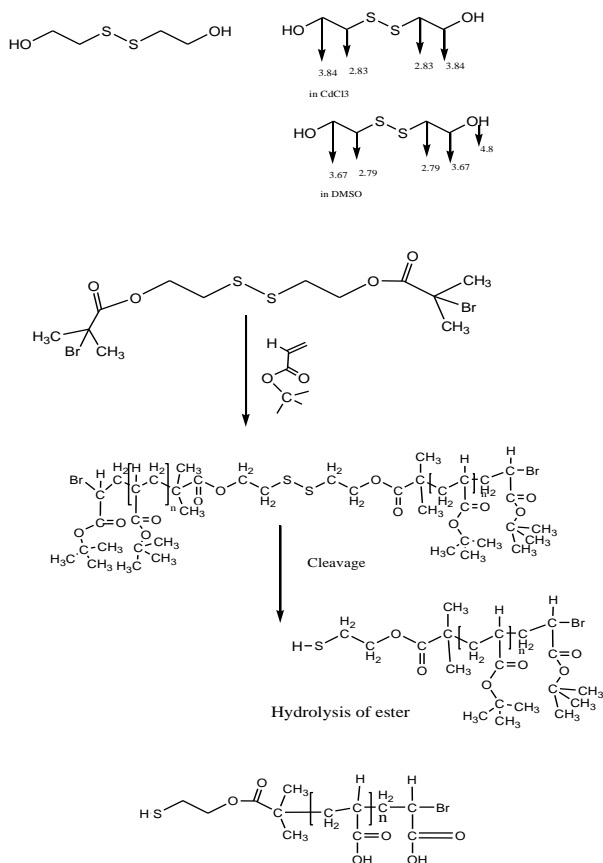


Composition:

Mn x10 ³	Mw x10 ³	PDI
30.0	54.0	1.8

Synthesis Procedure:

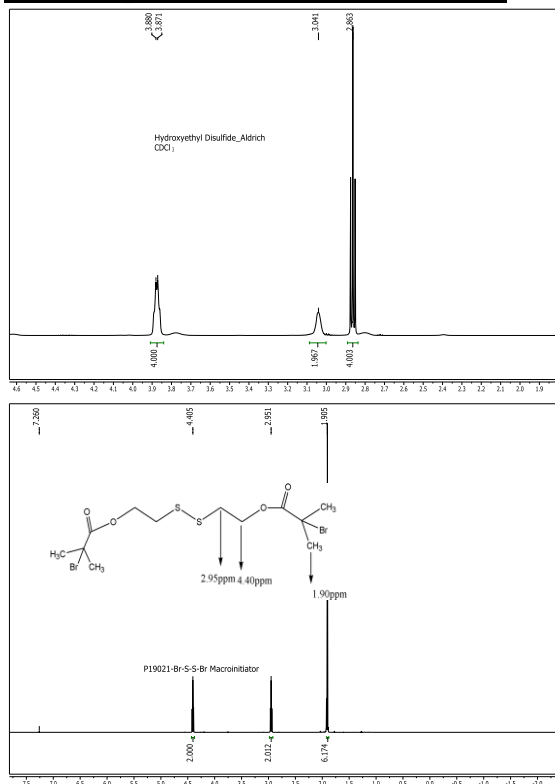
The polymer was synthesized by ATRP polymerization process. The following reaction scheme shows how the product was prepared:



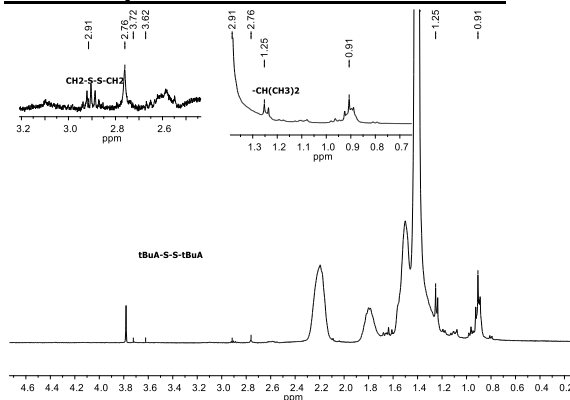
Characterization:

The product was characterized by size exclusion chromatography (SEC) and ¹H NMR.

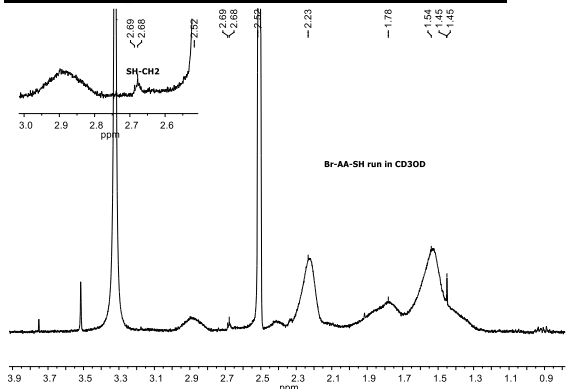
H NMR spectrum of the macroinitiator:



H NMR spectrum of the Disulfide form:



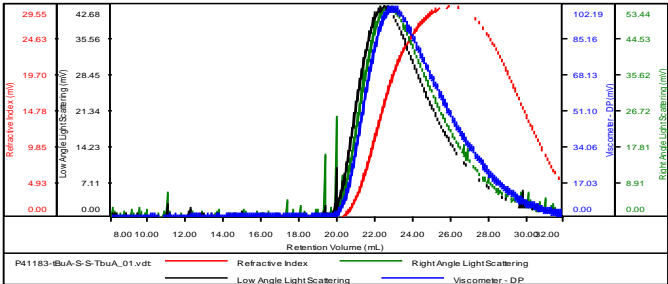
H NMR spectrum of the free thiol form:



SEC elugram of the PtBuA-S-StBuA:

P41183-tBuA-S-S-tBuA

Concentration (mg/mL)	6.1843
Sample dn/dc (mL/g)	0.0840
Method File	PS99K-May-2018-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF

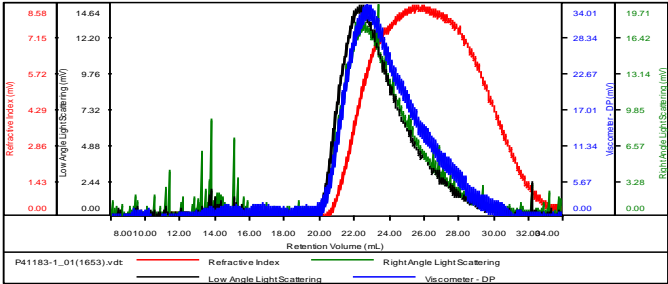


Sample	Mn (Da)	Mw (Da)	Mw/Mn	IV (dL/g)	Mp (Da)
P41183-tBuA-S-S-	72,628	203,379	2.800	1.8139	119,470

SEC elugram of the PtBuA-S-H:

P41183-tBuA-S-S-tBuA

Concentration (mg/mL)	1.8336
Sample dn/dc (mL/g)	0.0840
Method File	PS99K-May-2018-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF



Sample	Mn (Da)	Mw (Da)	Mw/Mn	IV (dL/g)	Mp (Da)
P41183-1_01(1653)	53,239	208,253	3.912	1.8271	126,004

After Hydrolysis of tert-butyl ester:
PAA-SH Mn: 30,000 Mw/Mn: 1.8