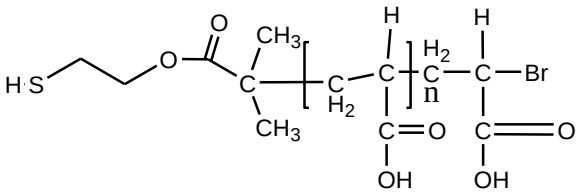
Sample Name: **Thiol terminated Poly (acrylic acid)**

Sample #: **P41184-AASH**

Structure:

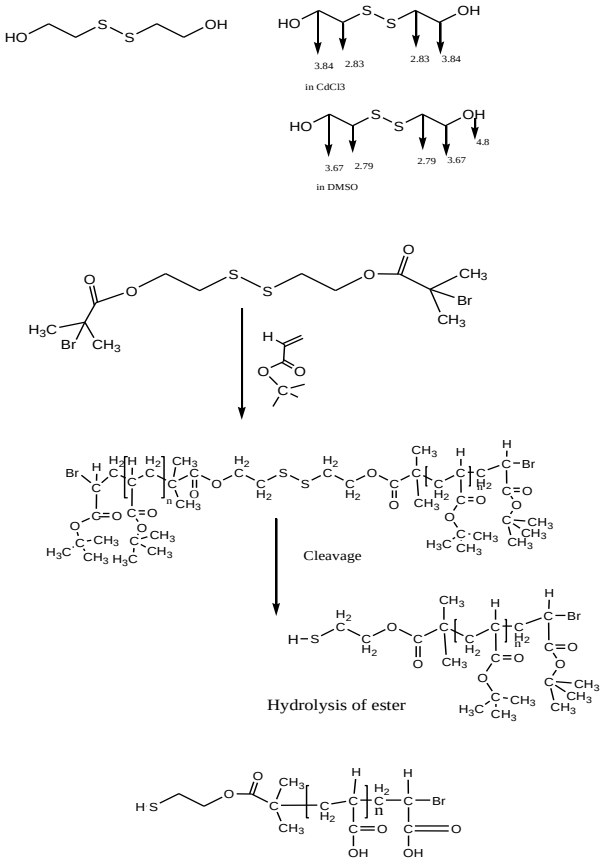


Composition:

Mw x10^3	Mn x10^3	PDI
13.0	7.5	1.7

Synthesis Procedure:

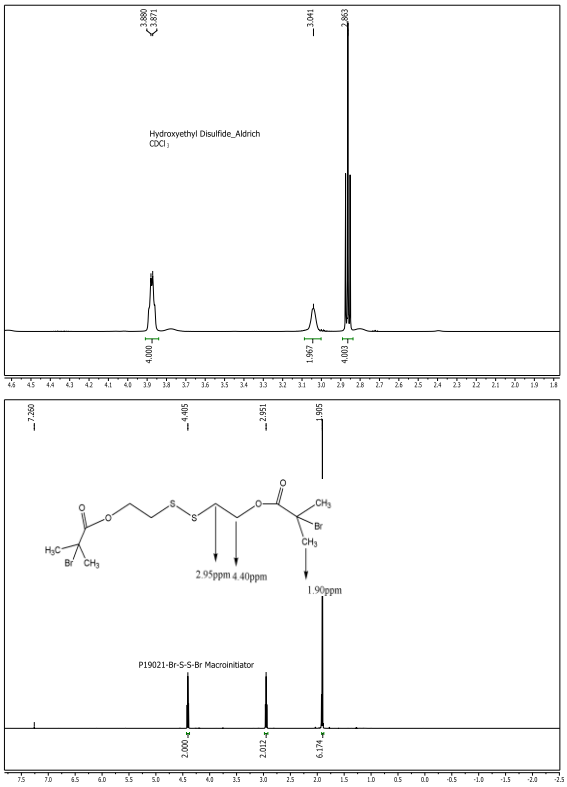
The polymer was synthesized by ATRP polymerization process. The following reaction scheme shows how the product was prepared:



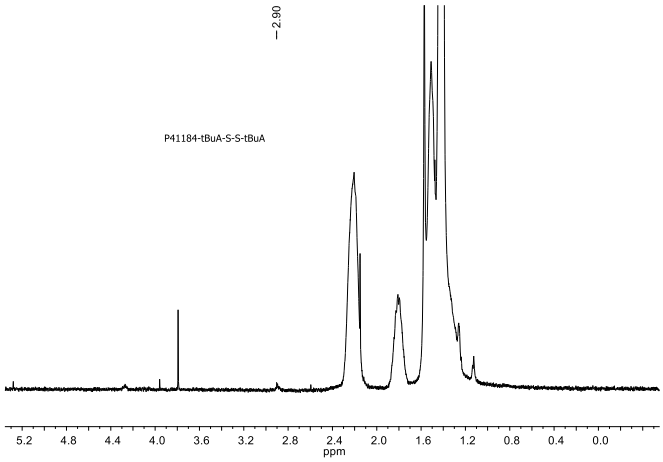
Characterization:

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

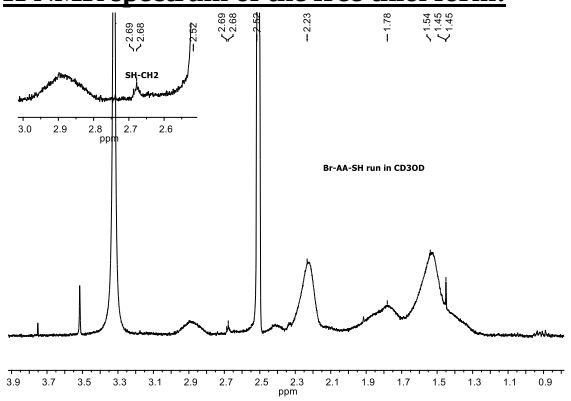
H NMR spectrum of the macroinitiator:



H NMR spectrum of the Disulfide form:



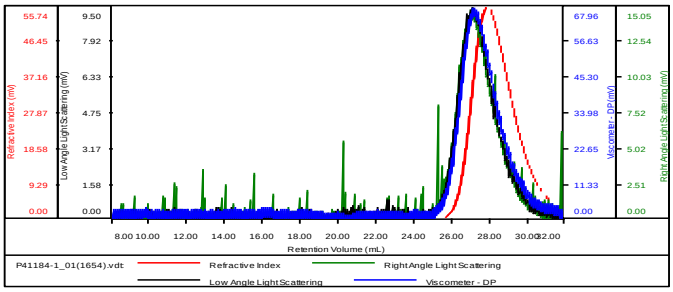
H NMR spectrum of the free thiol form:



SEC elugram of the PtBuA-S-StBuA:

P41184-tBuA-S-S-tBuA

Concentration (mg/mL)	4.0003
Sample dn/dc (mL/g)	0.0840
Method File	PS99K-May-2018-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF

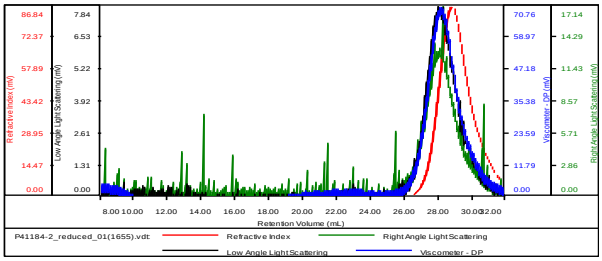


Sample	Mn (Da)	Mw (Da)	Mw/Mn	IV (dL/g)	Mp (Da)
P41184-1_01(1654)	20,950	36,974	1.765	0.6803	28,784

SEC elugram of the PtBuA-S-H:

P41184-tBuA-S-H

Concentration (mg/mL)	5.4254
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)
P41184-2_reduced	13,279	22,383	1.686	0.4639	14,841

After Hydrolysis of tert-butyl ester:
PAA-SH Mn: 7,500 Mw/Mn: 1.7