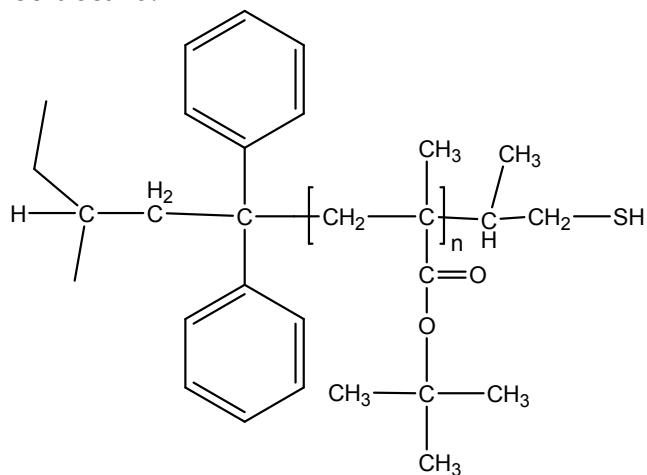


Sample Name:
Thiol Terminated Poly(t-butyl methacrylate)

Sample #: **P8385-tBuMASH**

Structure:

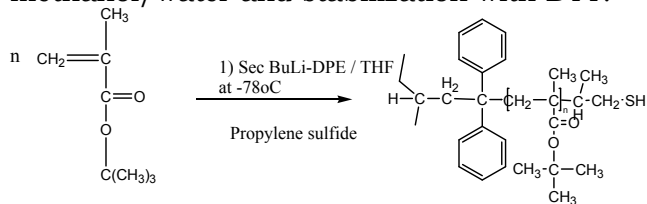


Composition:

$M_n \times 10^3$	PDI
1.8	1.35
C:H:O:S	SH functionality From HNMR: 70%

Synthesis Procedure:

Thiol Terminated Poly(t-butyl methacrylate) is synthesized by living anionic polymerization of tert-butyl methacrylate followed by termination with dry propylene sulfides followed by quenching in acidic methanol/water and stabilization with DTT.



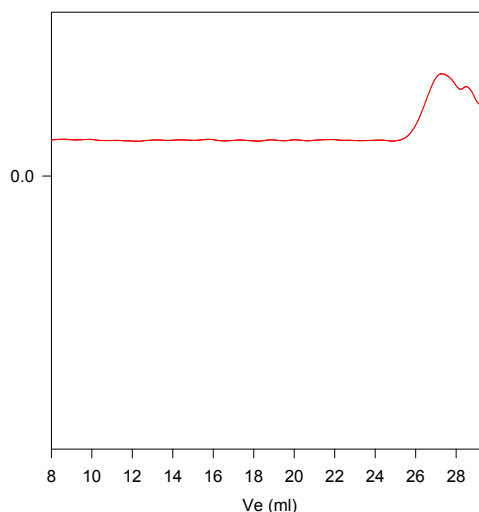
Characterization:

The molecular weight and polydispersity index of this polymer were determined by size exclusion chromatography (SEC) before inclusion of the CO₂H function using a Varian liquid chromatograph equipped with a UV and refractive index detector. The functionality of polymer was determined by the titration with NaOH, using phenolphthalein as the indicator.

Solubility:

Polymer is soluble in THF, CHCl₃, Toluene, dioxin and precipitated out from methanol/water or in cold hexane.

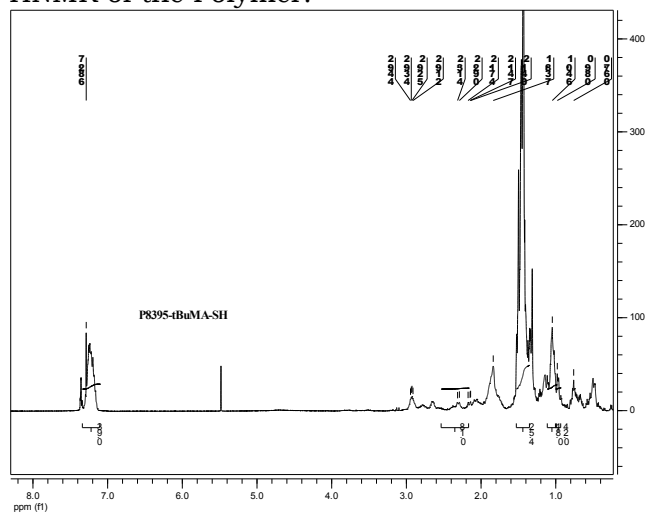
SEC of Sample:
P8385-tBuMASH



Size exclusion chromatography in DMF at 40 °C:

— $M_n=1800$, $M_w=2500$ PI=1.35 From HNMR: SH Functionality about 70%

HNMR of the Polymer:



References for further information:

1. Varshney, S. K.; Song, Z.; Zhang, Jian-Xin.; Jerome, Robert. Rapid Communication; J. Polym. Sci. Part A, 2006, 44, 3400.
2. S. K. Varshney, Ph. Bayard, C. Jacobs, R. Jerome, R. Fayt and Ph. Teyssie "Anionic Polymerization of Meth(acrylic) Monomers-8; Synthesis and Characterization of (Meth)acrylic end-functionalized Polymers: Macromonomers and Telechelics" CA 117, 18, 172243. Macromolecules, 1992, 25, 5578-5584.