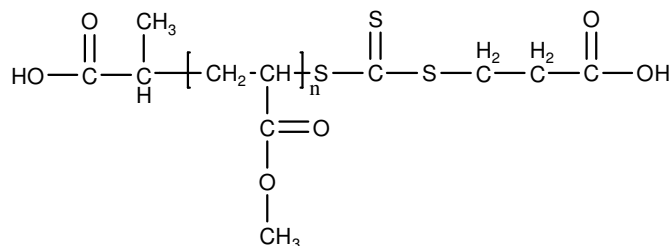


Sample Name: Poly(methyl acrylate), RAFT-agent terminated

Sample #: P16024B-MA-RAFT macroinitiator

Structure:



Composition:

Mn x 10 ³	PDI
13.5	1.24

Synthesis Procedure:

The poly(methyl acrylate) was prepared by RAFT controlled process of methyl acrylate monomer in 1,4-dioxane.

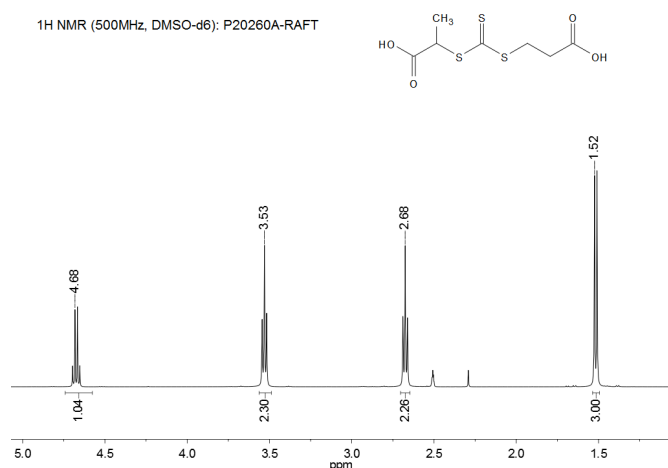
Characterization:

The molecular weight and polydispersity index (PDI) are obtained by size exclusion chromatography (SEC) in DMF. SEC analysis was performed on a Varian liquid chromatograph equipped with refractive and light scattering detectors.

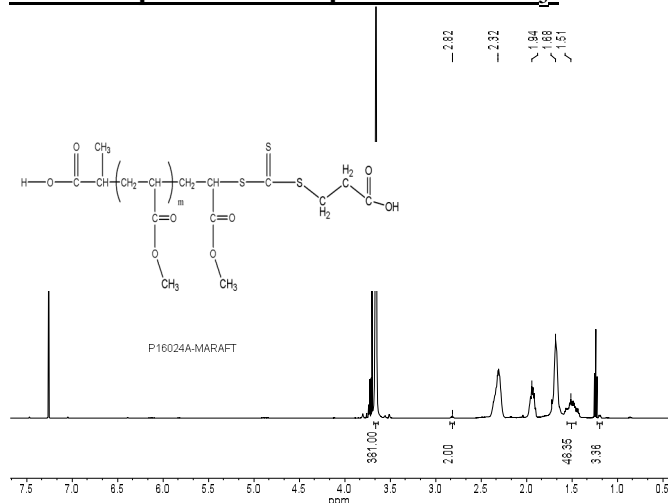
Solubility:

Poly(methyl acrylate) is soluble in THF and DMF. This polymer precipitates from methanol containing 10-50% water.

¹H NMR spectrum of RAFT agent in DMSO-d₆:



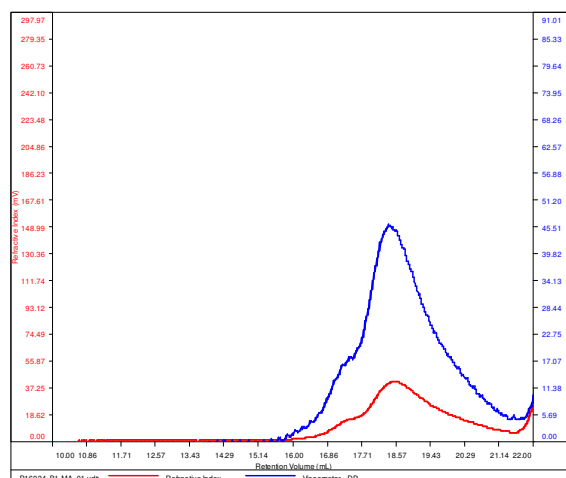
¹H NMR spectrum of the product in CDCl₃:



SEC elugram of the polymer:

P16024B-MA-RAFT

Conc (mg/mL)	5.0185
dn/dc (mL/g)	0.0680
Method	PS80K-May-25-2016-0000.vcm
Solvent	DMF w 0.023M LiBr
Column	PSS



Sample	Mn	Mw	Mp	Mw/Mn	IV
P16024-B1-MA_01.vdt	13,687	17,018	15,222	1.243	0.2227

References:

- Ph. Teyssie, Ph. Bayard, R. Jerome, **S. K. Varshney**, and J. S. Wang, *35th IUPAC International Union of Pure & Applied Chemistry International Symposium on Macromolecules* 1994, 67.
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- R. Jerome, R. Forte, **S. K. Varshney**, R. Fayt, and Ph. Teyssie, "The Anionic Polymerization of Alkylacrylates: A Challenge" in the *Recent Advances in Mechanistic and Synthetic Aspects of Polymerization*: M. Fontanille and A. Guyot Ed., NATO ASI Series C 215, 101 (1987), CA Vol. 108, 12, 094992.
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