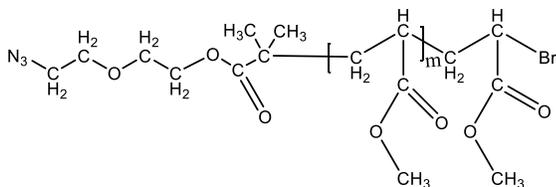


Sample Name:
Poly(methyl acrylate), α -azide-terminated

Sample #: P42088A-MA-N3

Structure:

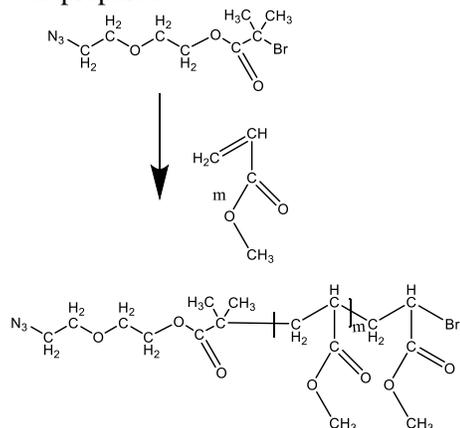


Composition:

Mn x 10 ³	PDI
2.6	1.4

Synthesis Procedure:

The following reaction scheme shows how the product was prepared:



Characterization:

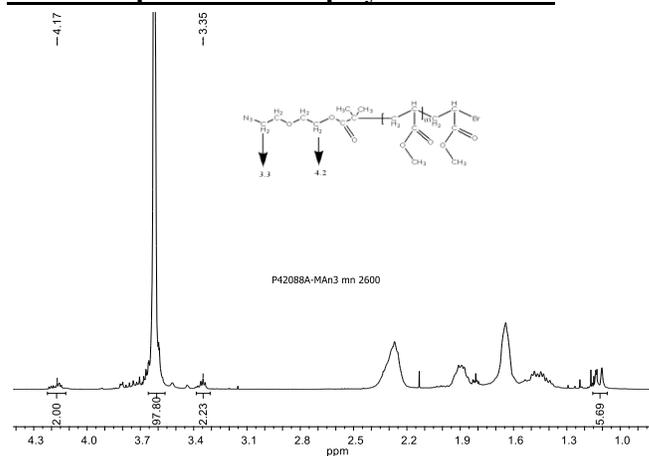
The product was characterized by size exclusion chromatography (SEC), ¹H NMR and FTIR.

FTIR : Presence of Azide end groups were observed by FTIR (Cm-1): 2118(s) and compare with Carbonyl 1735 (s).

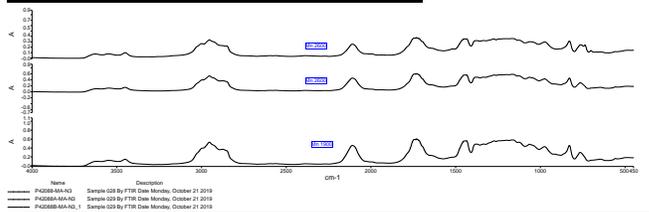
Calibration for FTIR:

Methyl 2- azidopropionate and Bromo end functionalized poly methyl acrylate were mixed in several ration in CHCl₃ and FTIR were made in CHCl₃ in a solution cell. The integration of the peak corresponding to the azide and carbonyl groups were compared. It gives you an approximate functionalization. The details are reported in our publication : Xing Fu. Zhong, S. K.Varshney, and A. Eisenberg "Critical Micellization Length for Polystyrene-b-Na-Acrylate Block Ionomers" CA Vol 117, 26, 252280 Macromolecules 1992, 25, 7160-7167.

¹H NMR spectrum of the polymer: PMA-Br



FTIR of the polymer cast on KBr

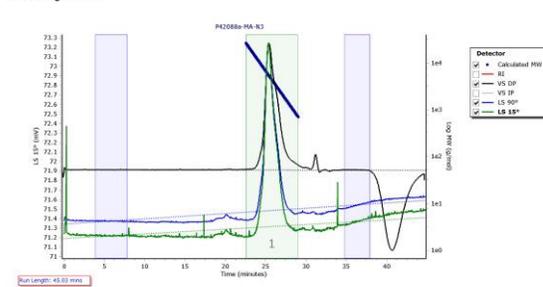


SEC elugram of the Polymer:

Agilent GPC/SEC Software

P42088a-MA-N3

Chromatogram Plot



Molecular Weight Averages

Peak	Mp (g/mol)	Mn (g/mol)	Mw (g/mol)	Mz (g/mol)	Mz+1 (g/mol)	Mv (g/mol)	PD
Peak 1	5116	2788	3683	4902	5623	4679	1.393