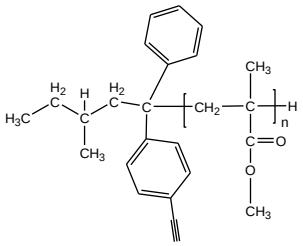
Sample Name: **Alkyne-terminated poly(methyl methacrylate)**

Sample #: **P18369-MMA-Alkyne**

Structure:



Composition:

Mn x 10^3	PDI
10.0	1.05

Alkyne functionality:	>90%

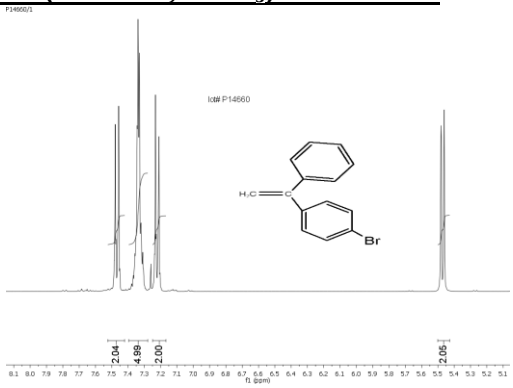
Synthetic Procedure:
The polymer was prepared by anionic polymerization.

Characterization:
The product was characterized by ^{1}H NMR and FTIR. The molecular weight and polydispersity index (PDI) were obtained by size exclusion chromatography (SEC) in DMF on a Malven liquid chromatograph equipped with refractive and light scattering detectors.

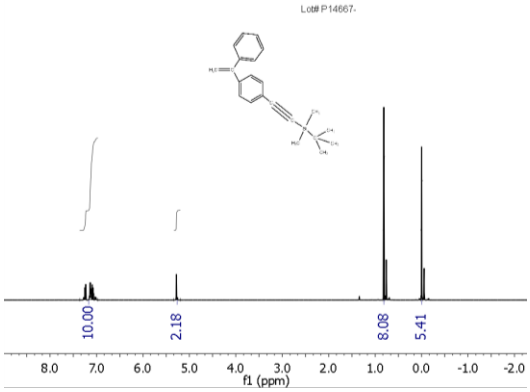
Functionality:
Degree of functionality was determined by ^{1}H NMR.

Solubility:
Vinyl terminated PMMA is soluble in DMF, THF, toluene, and $CHCl_3$. It precipitates from methanol, hexane, water.

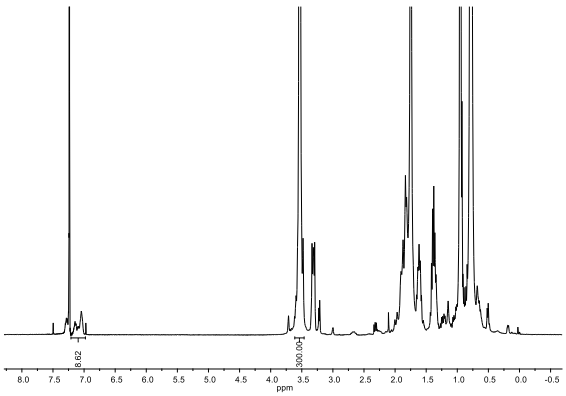
^{1}H NMR (500 MHz, $CDCl_3$) of 4Br-DPE:



^{1}H-NMR of acetylene-DPE linker:



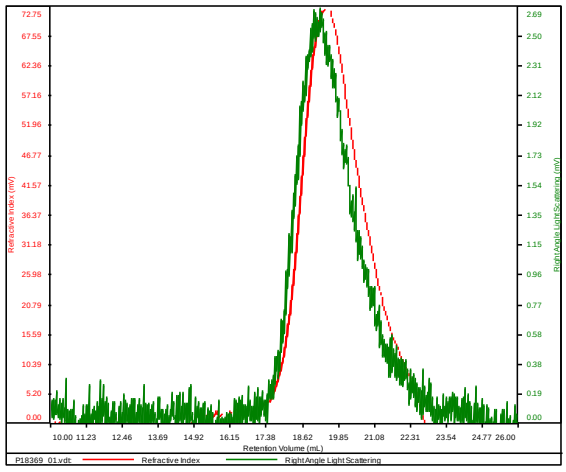
^{1}H NMR of the polymer:



SEC elugram of the polymer:

P18369

Conc	10.8170
dn/dc	0.0650
Solvent	DMF w 0.023M LiBr
Flow Rate	0.7000
Method	PS-80k_2018-04-02-0000.vcm



Sample	Mn	Mw	Mp	Mw/Mn	IV
P18369_01.vdt	10,186	10,627	10,419	1.043	0.0820