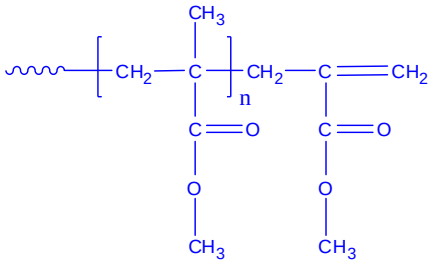
Sample Name: **Vinyl Terminated**

Poly(methyl methacrylate)

Sample #: **P6456A-MMAVinyl**

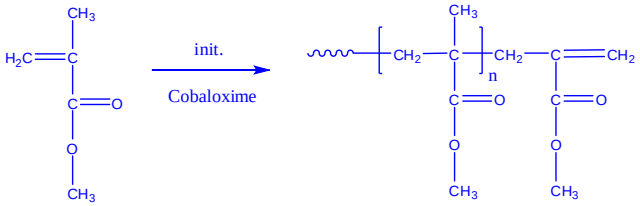
Structure:



Composition:

Mn x 10^3	PDI
2.3	1.56

Synthesis Procedure:
Vinyl terminated poly(methyl methacrylate) macromonomer was prepared by free-radical polymerization with Cobaloxime as chain transfer reagent. The scheme of the reaction is illustrated below:

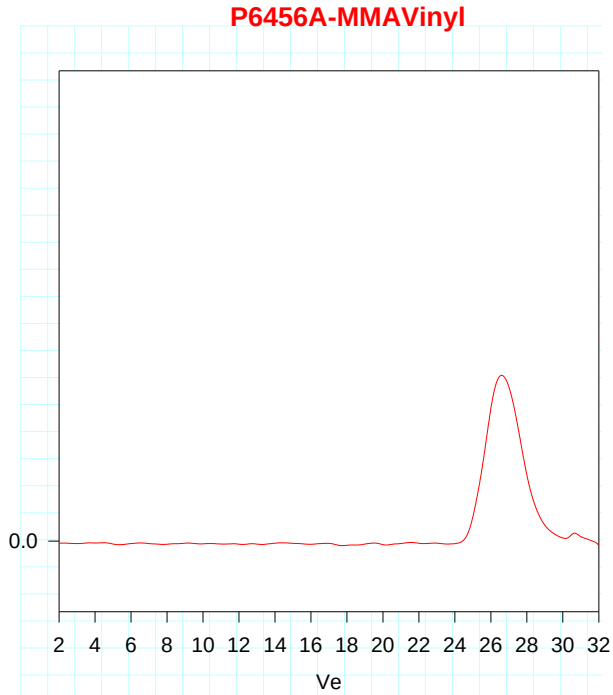


Characterization:
The molecular weight and polydispersity index (PDI) are obtained by size exclusion chromatography (SEC) in THF. SEC analysis was performed on a Varian liquid chromatograph equipped with refractive and UV light scattering detectors. Three SEC columns from Supelco (G6000-4000-2000 HXL) were used with triple detectors from Viscotek Co.

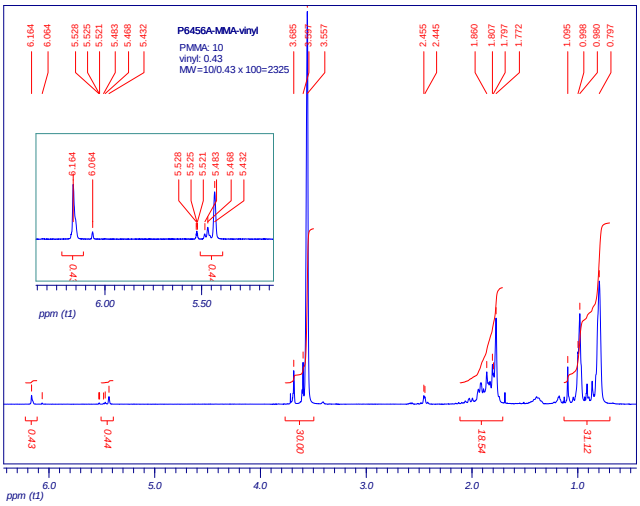
Functionality:
functionality of the obtained polymer was determined by proton NMR.

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

SEC of Sample:



Size Exclusion Chromatography of Poly(methyl methacrylate):

M_n= 2300, M_w= 3600, M_w/M_n =1.56

NMR spectrum of Polymer: