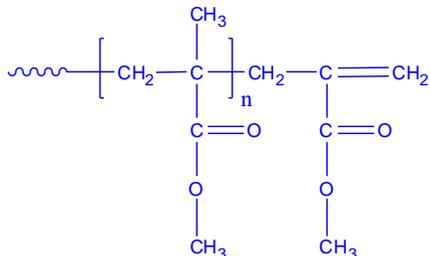


## Sample Name: Vinyl Terminated

### Poly(methyl methacrylate)

Sample #: P6432A-MMAVinyl

Structure:

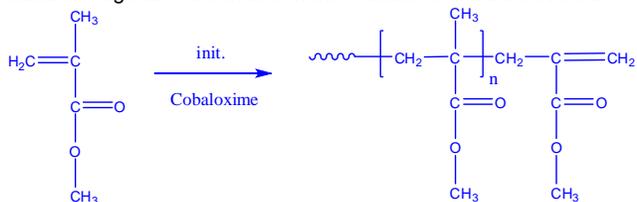


Composition:

Mn x 10 <sup>3</sup>	PDI
3.80	1.49

#### 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.

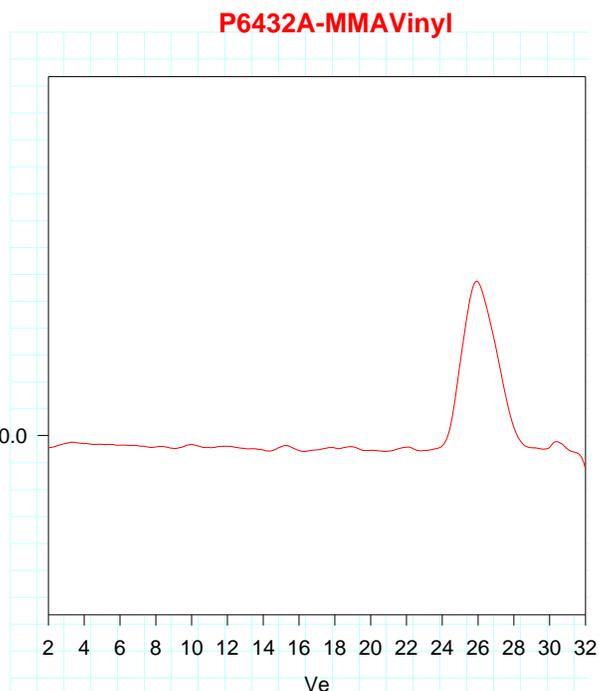
#### Functionality:

functionality of the obtained polymer was determined by proton NMR.

#### Solubility:

Vinyl terminated PMMA is soluble in DMF, THF, toluene, and CHCl<sub>3</sub>. It precipitates from methanol, hexane, water.

#### SEC of Sample:



Size Exclusion Chromatography of Poly(methyl methacrylate):

$$M_n = 3800, M_w = 5600, M_w/M_n = 1.49$$

#### NMR spectrum of Polymer:

