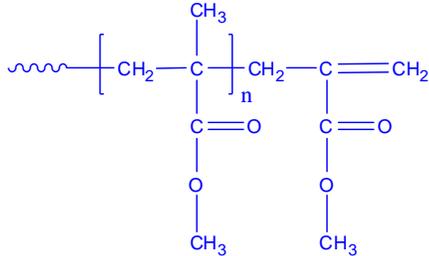


## Sample Name: Vinyl Terminated

### Poly(methyl methacrylate)

Sample #: P6456B-MMAVinyl

Structure:

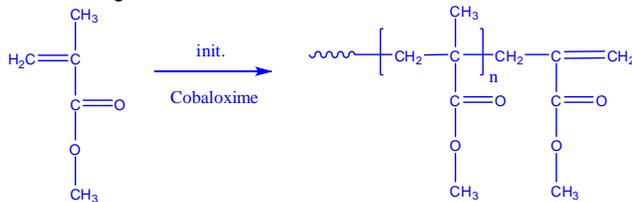


Composition:

Mn x 10 <sup>3</sup>	PDI
2.9	1.61

#### 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 Viscotec Co.

#### Functionality:

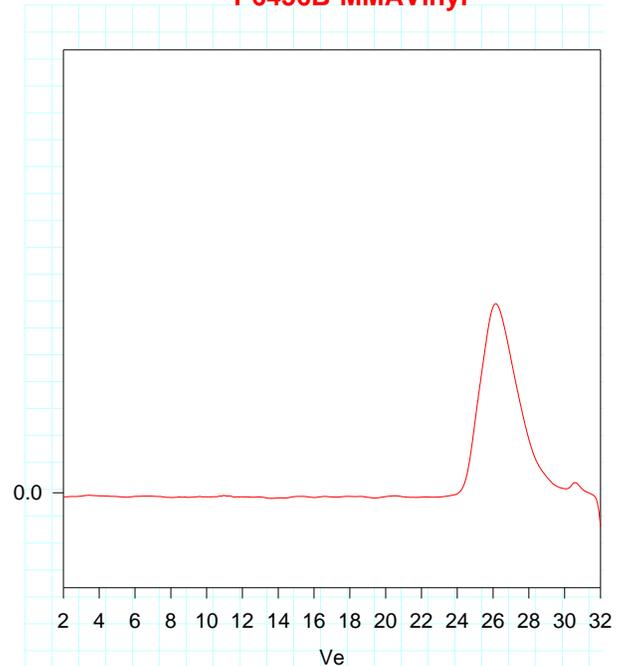
functionality of the obtained polymer was determined by proton NMR.

#### Solubility:

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

#### SEC of Sample:

P6456B-MMAVinyl



Size Exclusion Chromatography of Poly(methyl methacrylate):

$$M_n = 2900, M_w = 4700, M_w/M_n = 1.61$$

#### NMR spectrum of Polymer:

