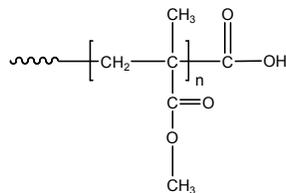


**Sample Name:**  
Carboxy Terminated Poly(methyl methacrylate)

**Sample #:** P1761-MMACOOH

**Structure:**

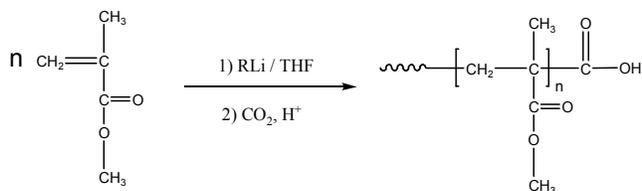


**Composition:**

Mn x 10 <sup>3</sup>	PDI
13.5	1.14
COOH functionality	70%
T <sub>g</sub> for the functionalized polymer	124°C

**Synthesis Procedure:**

Carboxy Terminated Poly(methyl methacrylate) was prepared by anionic living polymerization of methyl methacrylate in THF and termination of the polymerization with dried CO<sub>2</sub>. The scheme of the reaction is illustrated below:



**Characterization:**

The molecular weight and polydispersity index of this polymer were determined by size exclusion chromatography (SEC) using a Varian liquid chromatograph equipped with a UV and refractive index detector before the addition of the CO<sub>2</sub>H function.

**Thermal analysis:**

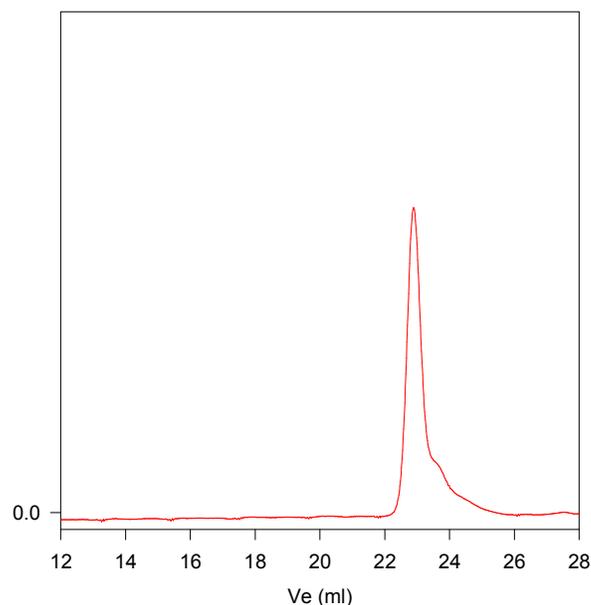
Thermal analysis of the samples was carried out using a differential scanning calorimeter (TA Q100) at a heating rate of 10°C/min. The inflection glass transition temperature (T<sub>g</sub>) has been considered.

**Solubility:**

The polymer is soluble in THF, Toluene, chloroform and acetone.

**SEC for the polymer:**

**P1761MMACOOH**



Size exclusion chromatography of poly(methyl methacrylate) (before terminating reaction with CO<sub>2</sub>).

M<sub>n</sub>=13500, M<sub>w</sub>=15400 PI=1.14, functionality=0.70

**DSC thermogram for the sample:**

