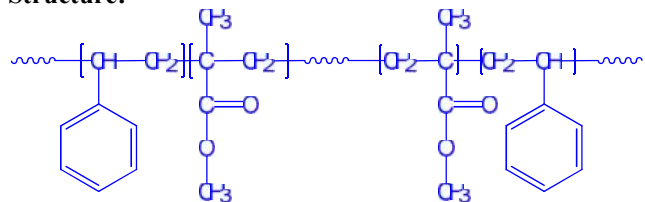


Sample Name:

**Poly(styrene-b-methyl methacrylate-b-styrene)**

**Sample #: P14504A-SMMAS**

**Structure:**

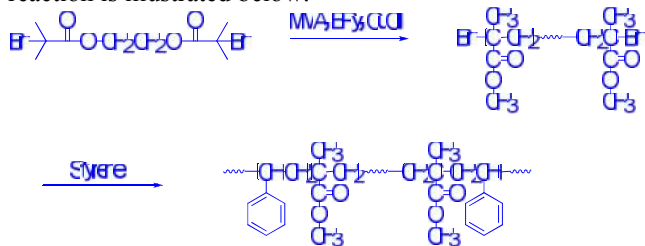


**Composition:**

Mn x 10 <sup>3</sup> (S-b-MMA-S)	PDI
19.0-b-148.0-b-19.0	1.25
Microstructure of PMMA BLOCK S:h:I contents 63: 33: 4	

**Synthesis Procedure:**

Poly(styrene-b-methyl methacrylate-b-styrene) is prepared by ATRP using difunctional initiator. The scheme of the reaction is illustrated below:



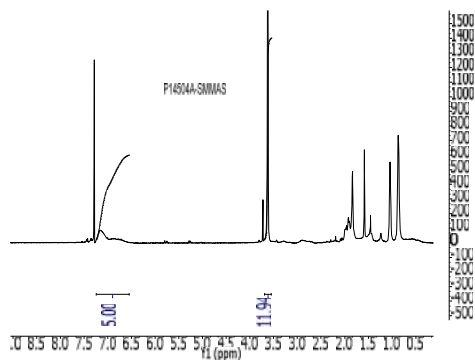
**Characterization:**

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.

**Solubility:**

Polymer is soluble in THF, toluene and CHCl<sub>3</sub>. It precipitates from methanol, ethanol, water and hexanes.

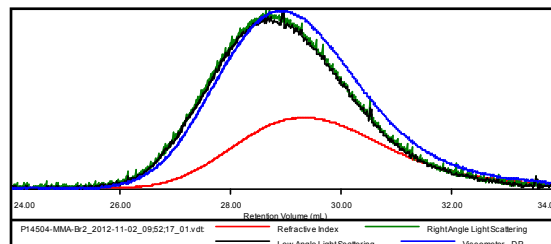
**Proton NMR of Sample:**



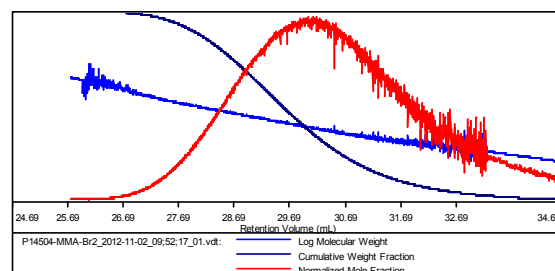
**SEC of Sample: od -BrPMMA-Br Macroinitiator**

**Sample ID: P14504-MMABr2**

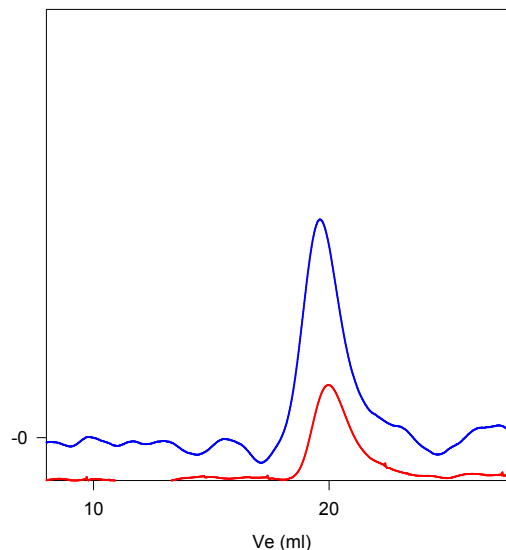
Concentration (mg/mL)	5.4516
Sample dn/dc (mL/g)	0.0840
Method File	PS80K-Oct-2012-0002.v cm
Column Set	3x PL 1113-6300
System	Sy stem 1



Sample	Mn (Da)	Mw (Da)	Mp (Da)	Mw/Mn	IV (dL/g)
P14504-MMA-Br2_2012-11-02_09:52:17	147,897	191,707	188,960	1.296	0.6367



**P14504A-SMMAS**



Size exclusion chromatography of triblock copolymer:

- Poly(methyl methacrylate) center block:  
 $M_n=148,000$ ,  $M_w=191,000$ ,  $M_w/M_n=1.29$
- Triblock Copolymer Poly(styrene-MMA-styrene)  
S(19,000)-b-MMA(148,000)-b-S(19,000),  $M_w/M_n=1.25$