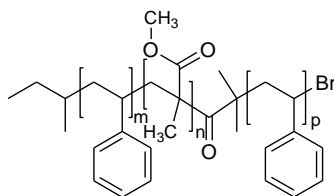


**Sample Name:** Poly(styrene–b–methyl methacrylate–b–styrene)

**Sample #:** P18725A–SMMAS

**Structure:**

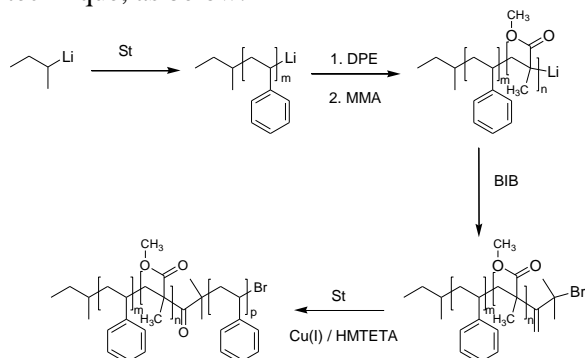


**Composition:**

$M_n \times 10^3$ St-b-MMA-b-St	PDI
6.2-b-13.0-b-1.5	1.10

**Synthesis Procedure:**

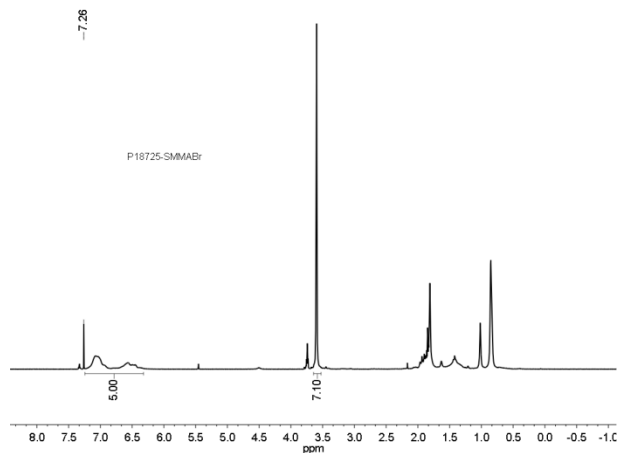
Bromo end functionalized poly[styrene–b–(methyl methacrylate)] diblock copolymer was firstly prepared by anionic polymerization followed by terminal group modification using 2–bromo isobutyryl bromide. Then the third polystyrene block was polymerized by ATRP technique, as below:



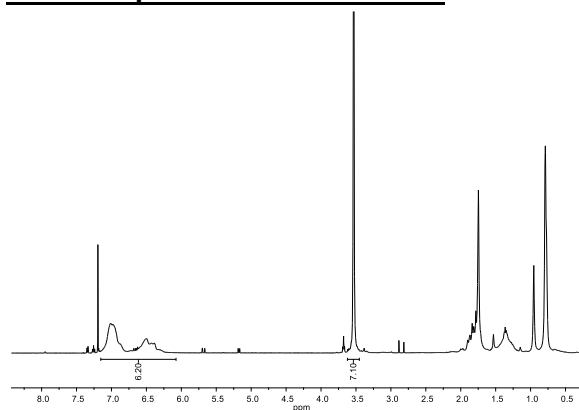
**Characterization:**

The Polymer is characterized by SEC and H-NMR.

**<sup>1</sup>H NMR of the SMMA-Br:**



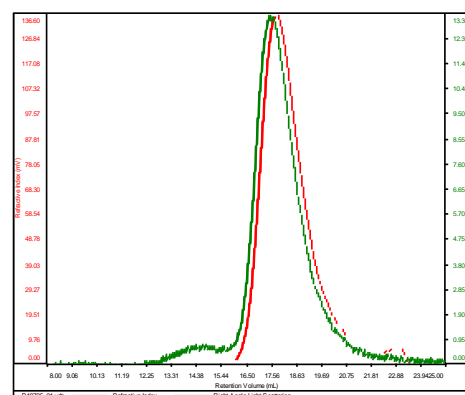
**<sup>1</sup>H NMR spectrum of the SMMAS:**



**SEC elugram of SMMA-Br:**

P18725-SMMA-Br

Conc	12.1780
dn/dc	0.0850
Solvent	DMF w 0.023M LiBr
Flow Rate	0.7000
Method	PS-80k_2018-04-02-0000.vcm

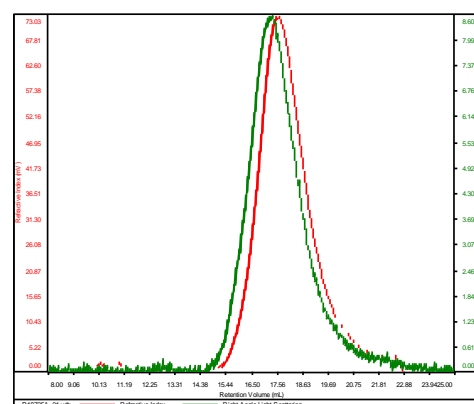


Sample	Mn	Mw	Mp	Mw/Mn	IV
P18725_01.vdt	19,225	20,814	19,594	1.083	0.1229

**SEC elugram of SMMAS:**

P18725A-SMMAS

Conc	6.5706
dn/dc	0.1070
Solvent	DMF w 0.023M LiBr
Flow Rate	0.7000
Method	PS-80k_2018-04-02-0000.vcm



Sample	Mn	Mw	Mp	Mw/Mn	IV
P18725A_01.vdt	20,665	22,593	20,476	1.093	0.1281