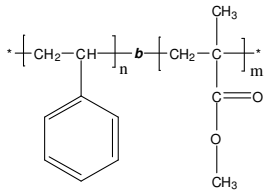
Sample Name: **Poly (styrene-b-methyl methacrylate)**
(PMMA block is predominantly syndiotactic, >78%)

Sample # **P19651-SMMA**

Structure:



Composition:

Mn x 10^3 S-b-MMA	PDI
60.0-b-92.0	1.07

T_g for PS block:	103°C
T_g for PMMA block:	103°C

Synthesis procedure:
The polymer was synthesized by anionic polymerization.

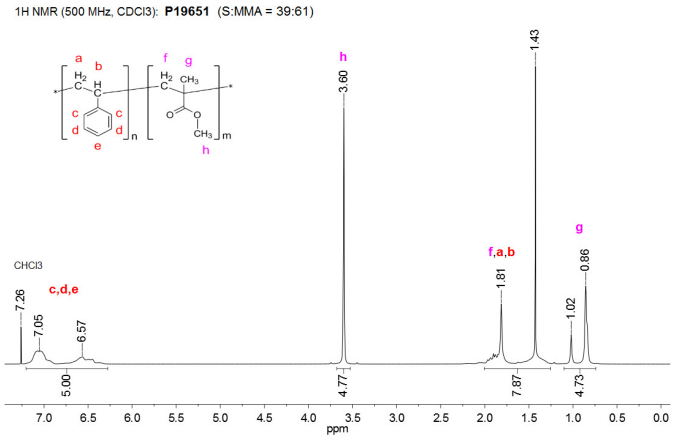
Characterization:
The molecular weight and polydispersity index of the polymer were determined by size exclusion chromatography (SEC). The ratio between blocks was calculated from ^{1}H NMR spectrum.

Solubility:
Poly(styrene–b–methyl methacrylate) is soluble in THF, toluene, dioxane, chloroform; and it precipitates from methanol, ethanol, hexanes, water.

References:

1. S. K. Varshney, R. Fayt, Ph. Teyssie, and J.P. Hautekeer US Patent 5,264,527 (1993)
2. Ph. Teyssie, Ph. Bayard, R. Jerome, S. K. Varshney, and J. S. Wang, *35th IUPAC International Union of Pure & Applied Chemistry International Symposium on Macromolecules" 1994, 67.*

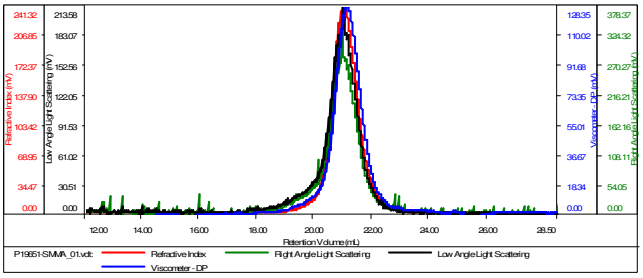
^{1}H NMR spectrum of the polymer:



SEC elugram:

Sample ID-P19651-SMMA

Concentration (mg/mL)	2.1230
Sample dn/dc (mL/g)	0.1180
Method File	PS80K-June30-2015-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF



Sample	MW Number Average (Da)	MW Weight Average (Da)	MW at Peak (Da)	Polydispersi	Intrinsic Viscosity (dL/g)
P19651-SMMA_01.vdt	140,904	150,859	131,549	1.071	1.9288