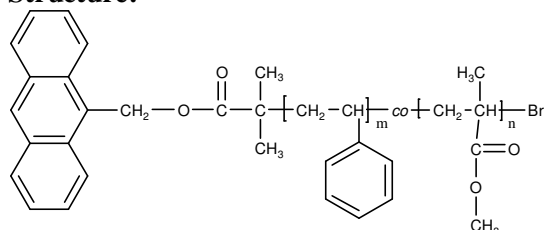


Sample Name: Anthracene Terminated
Poly(styrene-co-methyl methacrylate) Random Copolymer
Copolymer
Sample #: P14971-SMMAran-An

Structure:



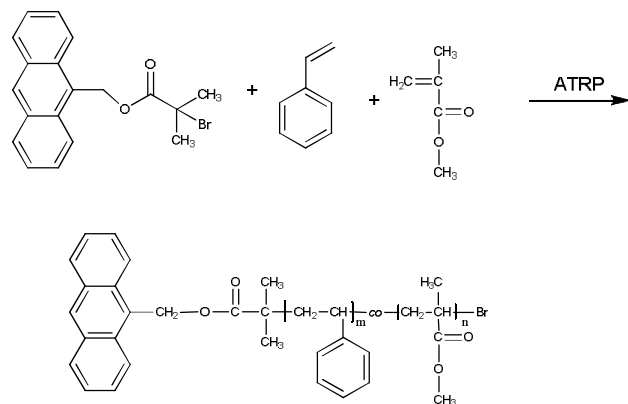
Composition:

$M_n \times 10^3$	PDI
31.0	1.26

Polystyrene content: 70 mol %

Synthesis Procedure:

Anthracene terminated poly(styrene-co-methyl methacrylate) random copolymer is prepared by polymerizing of styrene and methyl methacrylate via ATRP polymerization using an anthracene-containing initiator, 9-anthracenemethyl-2-2-bromoisobutyrate. The polymer was obtained by precipitating into methanol.



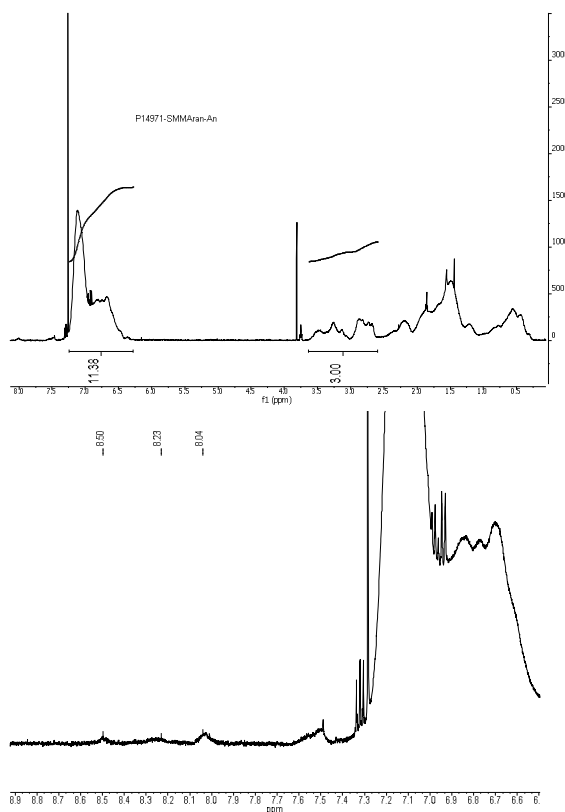
Characterization:

The molecular weight and polydispersity index of this polymer were determined by size exclusion chromatography (SEC) using a Varian liquid chromatograph equipped with a light scattering and refractive index detector. The ratio between polystyrene and poly(methyl methacrylate) in the copolymer was calculated from ^1H NMR spectroscopy by comparing the peak area of the PS phenyl protons at 6.5–7.3 ppm and the peak area of PMMA methyl protons at 2.6–3.6 ppm.

Solubility:

Polymer is soluble in THF, toluene and CHCl_3 . It precipitates from methanol, ethanol, water and hexanes.

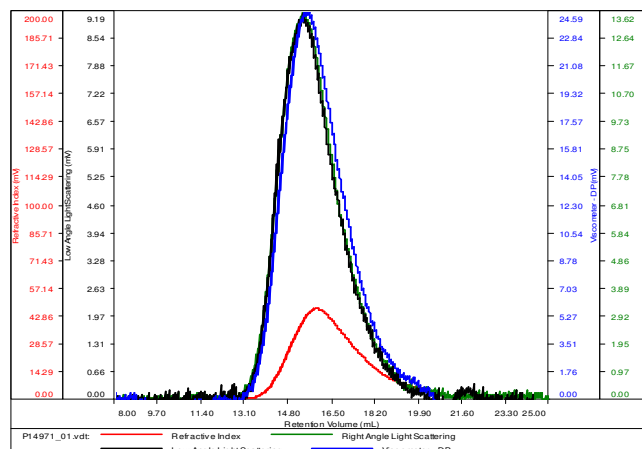
^1H NMR of the random copolymer P14971:



SEC elugram of the random copolymer:

SAMPLE ID: P14971-SMMA

Conc (mg/mL)	3.7811
dn/dc (mL/g)	0.1350
Method	ps80k-21Jan2016-DMF-0000.vcm
Solvent	DMF w 0.023M LiBr
Column	PSS



Sample	M_n	M_w	M_p	M_w/M_n	IV
P14971_01.vdt	31,003	39,183	38,209	1.264	0.1964