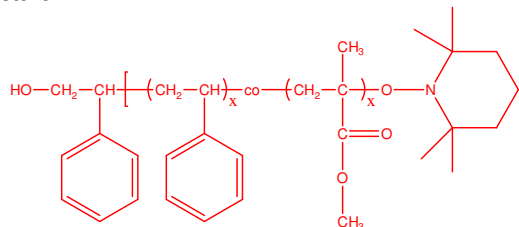


Sample Name:

**Random Copolymer Poly(styrene-co-methyl methacrylate),
α-Hydroxyl-ω-Tempo moiety Terminated**

Sample #: **P18336B-SMMAranOHT**

Structure:

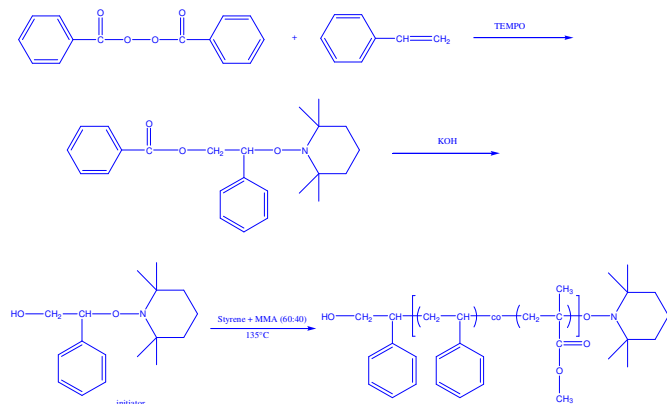


Composition:

Mn x 10 ³ (Styrene content mol%)	Mw/Mn (PDI)
44.0 (50 %)	1.35

Synthesis Procedure:

Hydroxy terminated poly(styrene-co-methyl methacrylate) is prepared by stable free radical polymerization at 135°C. The reaction scheme is shown below:



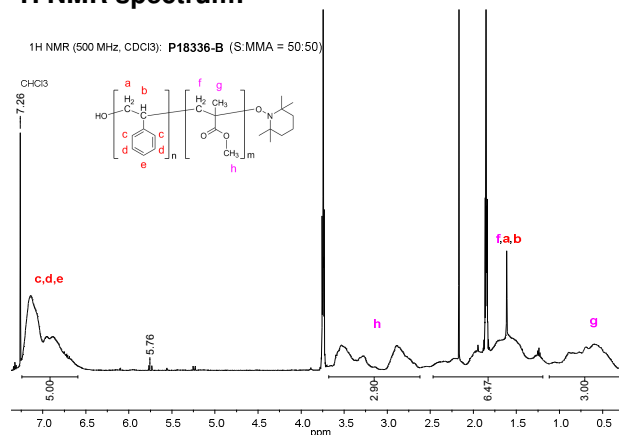
Characterization:

An aliquot of the copolymer was analyzed by size exclusion chromatography (SEC) to obtain the molecular weight and polydispersity index (PDI), the instrument calibrated by Polystyrene standards. The chemical composition was calculated from ¹H-NMR spectroscopy by comparing the peak area of the phenyl protons at 6.8-7.4 ppm with the peak area of methyl methacrylate at 2.6-3.6 ppm.

Solubility:

Poly(styrene-co-methyl methacrylate) is soluble in THF, DMF, Toluene and chloroform. Precipitate from methanol and Hexanes.

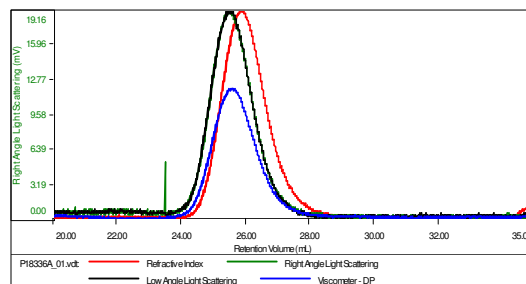
¹H NMR spectrum:



SEC elugram:

Sample ID: P18336B-SMMAran OHT

Concentration (mg/mL)	1.1342
Sample elution (mL/g)	0.1850
Method File	PS80K-March6-2015-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF



Sample	MW Number Average (Da)	MW Weight Average (Da)	MW at Peak (Da)	Polydispersity	Intrinsic Viscosity (dL/g)
P18336A_01.vcl	44,023	59,760	52,428	1.357	1.0396