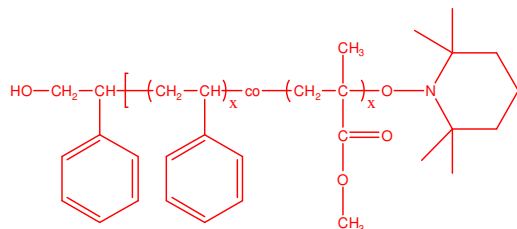


Sample Name:

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

Sample #: **P19673-SMMAran-OHT**

Structure:



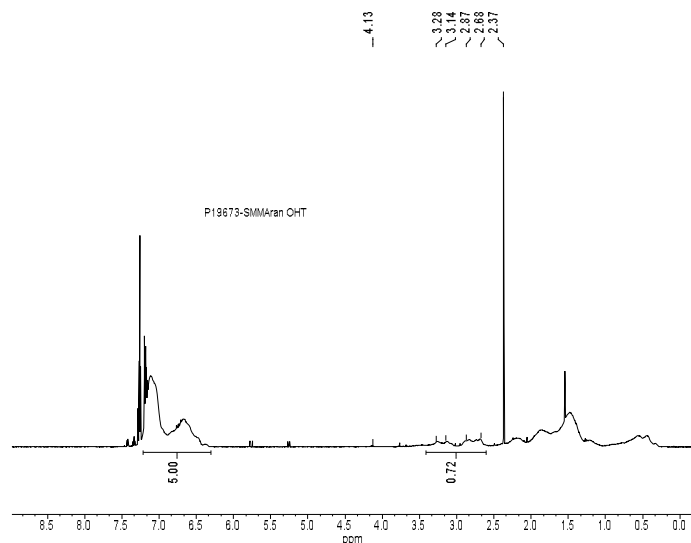
Composition:

$M_n \times 10^3$	M_w/M_n (PDI)	Mole % of Styrene
14.5	1.4	80 %

Characterisation:

To identified the compositions by HNMR is approximate: One must consider the MMA (ester protons) randomness chemical shifts between 3.6ppm to 2.6ppm and these ester protons must be close to the alpha methyl protons of MMA that comes in the region of 0.3 ppm to 1.2 ppm . Normally the alpha methyl protons are in the region of 0.86 ppm (triad syndio) ; 1.02 (triad isotactic and 1.2ppm triad hetero. Because of randmess with a styrene moieties these chemicals shifts are distributed between 0.3 ppm to 1.2 ppm.

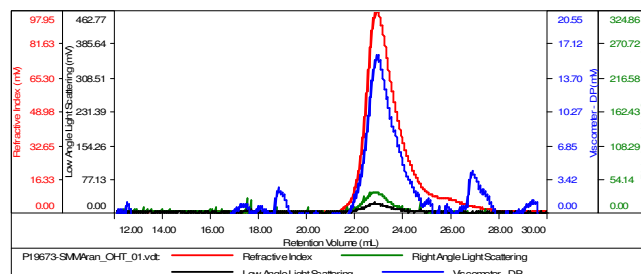
1H NMR spectrum



SEC profile of the random copolymer

Sample ID-P19673-SMMAran OHT

Concentration (mg/mL)	0.8115
Sample chid: (mL/g)	0.1700
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)
P19673-SMMAran_OHT_01.vdt	14,507	20,305	23,622	1.400	0.7611