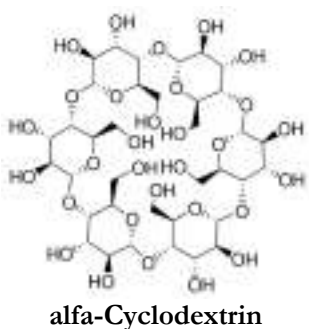
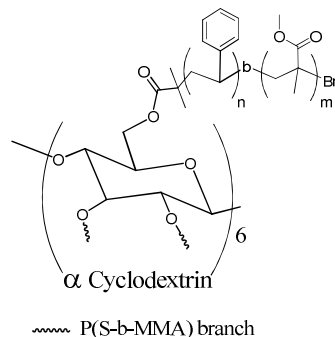
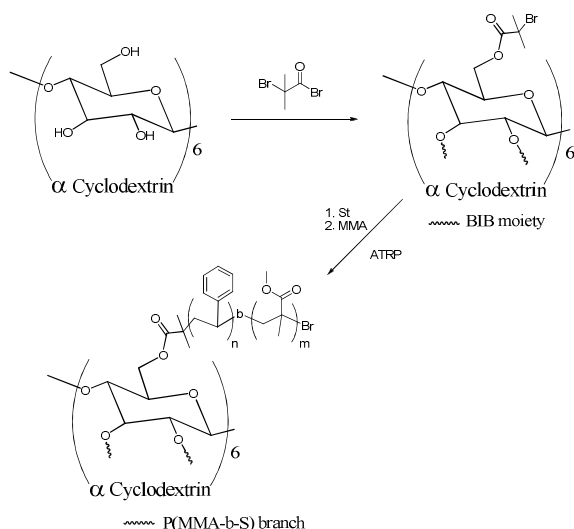


**Sample Name: P20144A-14SMMA**  
**Star like Poly [styrene-*b*-(methyl methacrylate)]**  
**bearing  $\alpha$ -Cyclodextrin as a core**  
**Average number of arms: >14**



Mn x 10 <sup>3</sup>	Mp x 10 <sup>3</sup>	PDI
269.4 (total)	172.0 (total)	1.88
10.7 (branch)	12.4 (branch)	1.32
St : MMA 1 : 1.5 (NMR)		

**Synthesis Procedure:**  
 By ATRP Process:



Scheme 1.

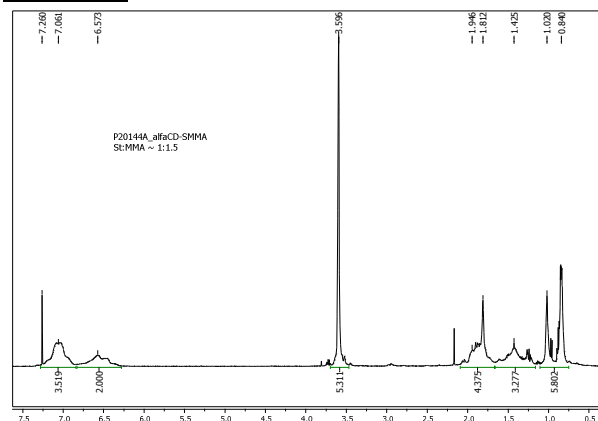
**Characterization:**

**Molecular Weight:** Size exclusion chromatography (SEC): The absolute molecular weight of the star-like polymer was determined by light scattering detector-Viscotek 270 model.

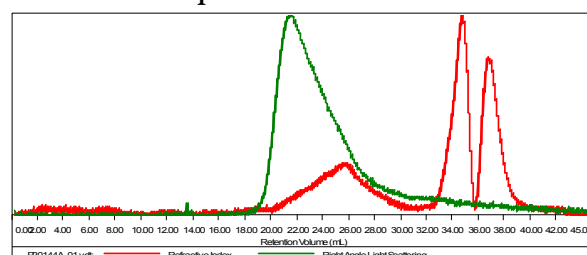
The molecular weight of each arm was determined after a complete hydrolysis of the product in basic conditions.

**N.B.** The number of arms is estimated based on the Mp values

**<sup>1</sup>H NMR:**

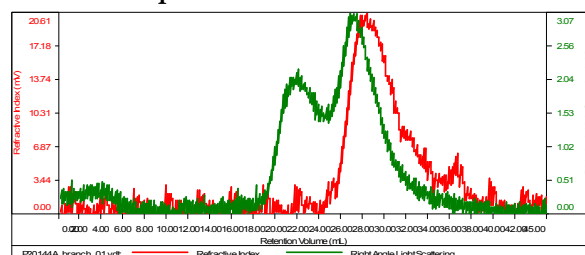


**Sample P20144A-14SMMA**



Sample	MW Number Average (Da)	MW Weight Average (Da)	MW at Peak (Da)	Polydispersity	Intrinsic Viscosity (dL/g)
_P20144A_01.vdt	269,440	507,156	172,714	1.882	0.0000

**Sample P20144A-14SMMA branch**



Sample	MW Number Average (Da)	MW Weight Average (Da)	MW at Peak (Da)	Polydispersity	Intrinsic Viscosity (dL/g)
P20144A_branch_01.vdt	10,751	14,202	12,437	1.321	0.0000