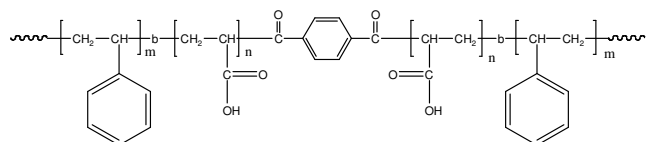


Sample Name: Poly(styrene-b-acrylic acid-b-styrene)

Sample #: P19590-SAAS

Structure:



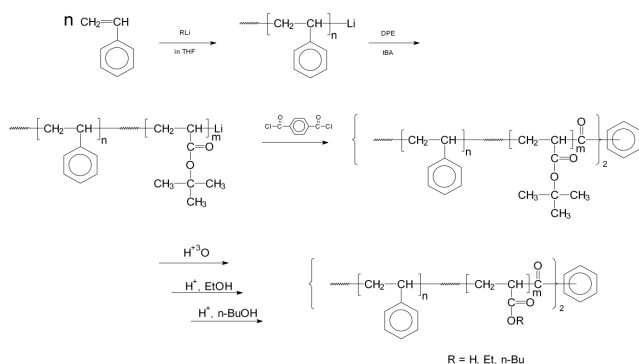
Composition:

Mn x 10 ³ (S-b-AA-b-S)	PDI
1.0-b-20.0-b-1.0	1.23

T _g for PS block:	Not distinct
T _g for AA block:	116°C

Synthesis Procedure:

The scheme of the reaction is illustrated below:



Characterization:

The polymer was characterized by SEC and ¹H NMR.

Thermal analysis:

Thermal analysis of the samples was carried out on a TA Q100 differential scanning calorimeter at a heating rate of 10°C/min. The midpoint of the slope change of the heat flow plot of the second heating scan was considered as the glass transition temperature (T_g).

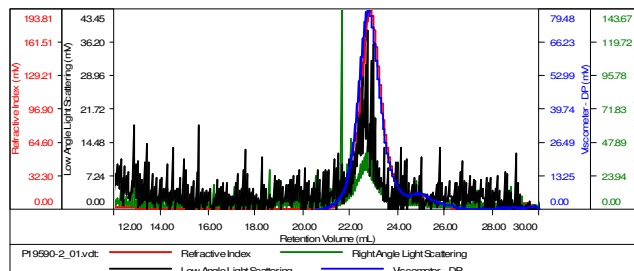
Solubility:

Polymer is soluble in THF, toluene and CHCl₃. It precipitates from methanol, ethanol, water and hexanes (depending on the compositions).

SEC of Sample:

Sample ID-P19590-2

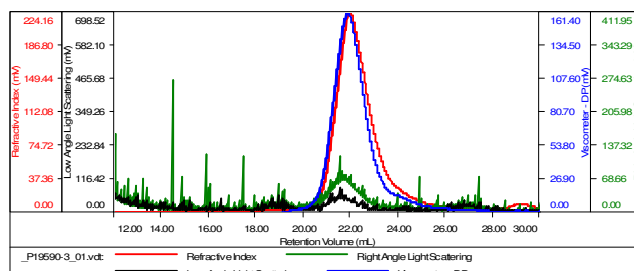
Concentration (mg/mL)	0.8766
Sample dn/dc (mL/g)	0.0980
Method File	PS80K-Nov-2015-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF



Sample	MW Number Average (Da)	MW Weight Average (Da)	MW at Peak (Da)	Polydispersity	Intrinsic Viscosity (dL/g)
P19590-2_01.vdt	19,603	26,515	17,488	1.353	3.2273

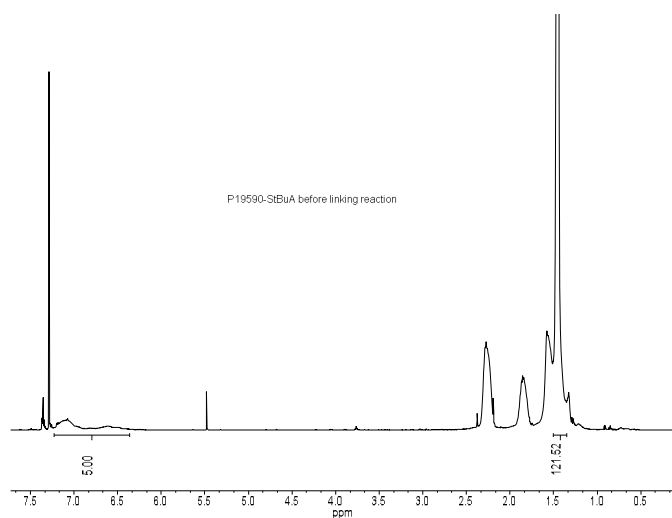
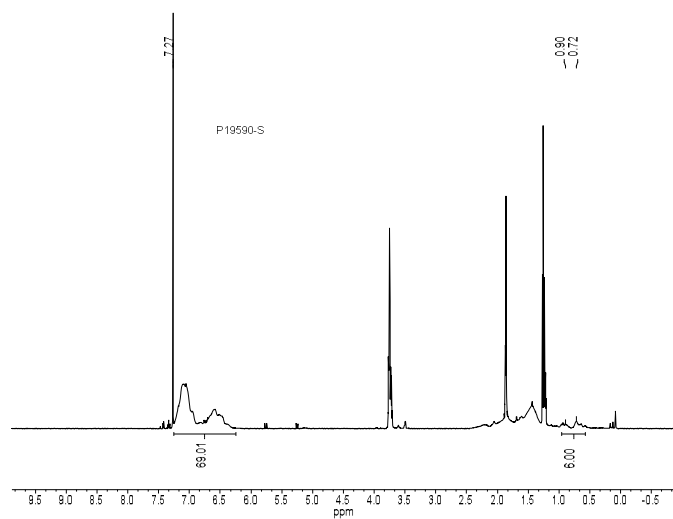
Sample ID-P19590-3

Concentration (mg/mL)	1.6138
Sample dn/dc (mL/g)	0.0900
Method File	PS80K-Nov-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)
P19590-3_01.vdt	35,976	44,260	39,782	1.230	4.4646

¹H NMR of sample



Reference:

S.K. Varshney, P. Kesani, N. Agarwal, J. Xin. Zhang, and M. Rafailovich. Synthesis of ABA type thermoplastic elastomers based on Polyacrylates, *Macromolecules*, 1999, 32, 235.