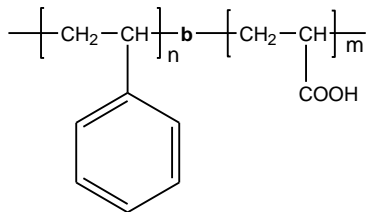


Sample Name: Poly (styrene -b- acrylic acid)

Sample #: P41098-SAA

Structure:

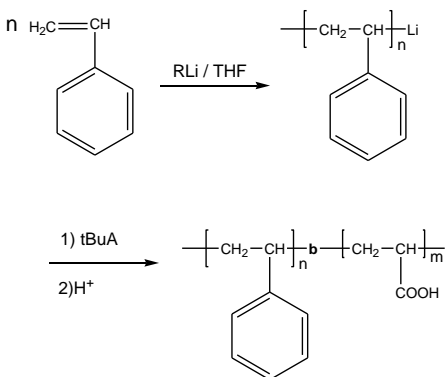


Composition:

Mn x 10 ³ PS-b-PAA	PDI
59.0-b-11.0	1.08

Synthesis Procedure:

Poly(styrene-b-acrylic acid) is prepared by living anionic polymerization with sequence addition of styrene followed by t-butyl acrylate and hydrolysis of the t-butyl group. The scheme of the reaction is illustrated below:



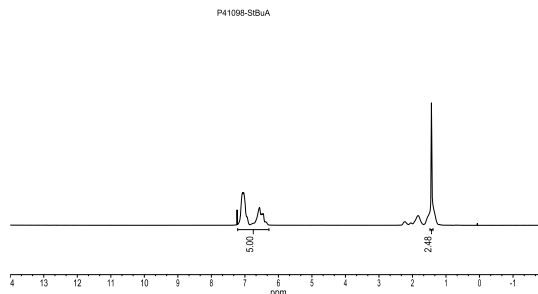
Characterization:

The product was characterized by size exclusion chromatography (SEC) and ¹H NMR.

Solubility:

The polymer is soluble in THF and DMF.

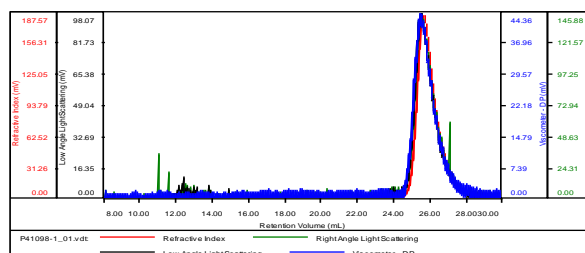
¹H NMR of the PS-b-tBuA:



SEC for the PS block:

P41098-1

Concentration (mg/mL)	5.8708
Sample dn/dc (mL/g)	0.1850
Method File	PS105K-April16-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF

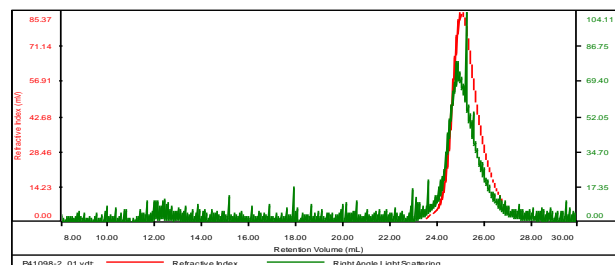


Sample	Mn (Da)	Mw (Da)	Mw/Mn	IV (dL/g)	Mp (Da)
P41098-1_01.vdt	58,836	62,385	1.060	0.3628	56,520

SEC for the PS block:

P41098-StBuA

Concentration (mg/mL)	3.6316
Sample dn/dc (mL/g)	0.1490
Method File	PS105K-April16-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF



Sample	Mn (Da)	Mw (Da)	Mw/Mn	IV (dL/g)	Mp (Da)
P41098-2_01.vdt	80,609	87,302	1.083	0.4384	78,967