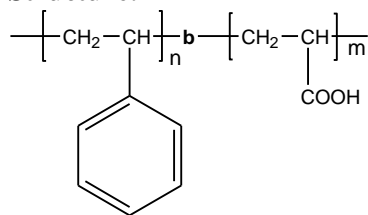


Sample Name: Poly (styrene -b- acrylic acid)

Sample #: P41097-SAA

Structure:

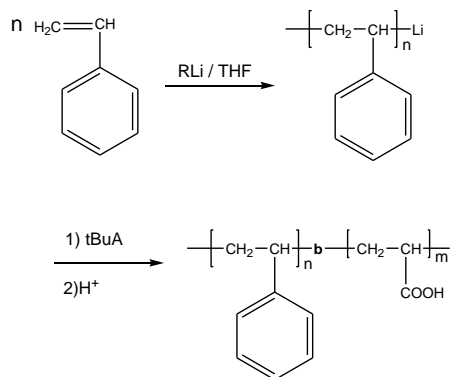


Composition:

Mn x 10 ³ PS-b-PAA	PDI
89.0-b-12.0	1.09

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:



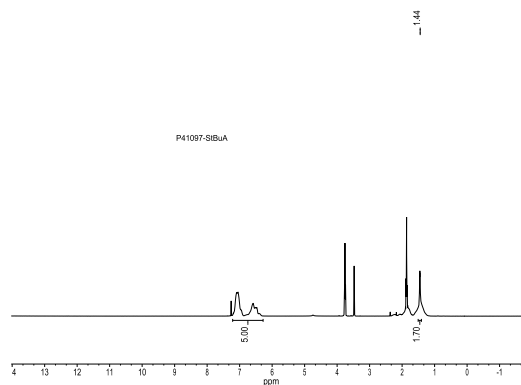
Characterization:

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

Solubility:

The polymer is soluble in THF and DMF.

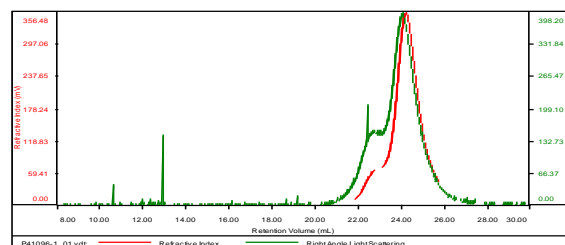
¹H NMR of the PS-b-tBuA:



SEC for the PS block:

P41097-S

Concentration (mg/mL)	12.0804
Sample dn/dc (mL/g)	0.1850
Method File	PS105K-Apr116-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF

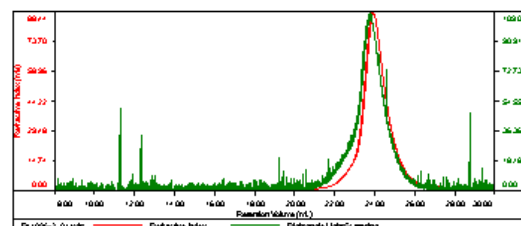


Sample	Mn (Da)	Mw (Da)	Mw/Mn	IV (dL/g)	Mp (Da)
P41096-1_01.vcl	89,153	93,388	1.048	0.4836	85,762

SEC for the PS-b-tBuA:

P41097-SbUA

Concentration (mg/mL)	4.0739
Sample dn/dc (mL/g)	0.1470
Method File	PS105K-Apr116-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF



Sample	Mn (Da)	Mw (Da)	Mw/Mn	IV (dL/g)	Mp (Da)
P41097_01.vcl	118,385	129,410	1.088	0.1449	110,803