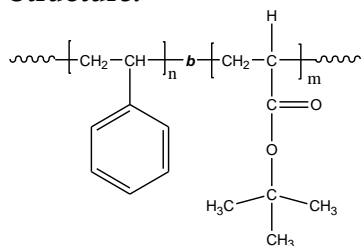


Sample Name: Poly(styrene-b- tert.butyl acrylate)
Sample #: P18740-StBuA

Structure:



Composition:

Mn x 10 ³ S-b-tBuA	PDI
30.0-b-110.0	1.3

Synthesis Procedure:

Poly(styrene-b-tert.butyl acrylate) is prepared by living anionic polymerization in THF at -78 °C using sec.BuLi initiator adduct with α -methyl styrene in the presence of LiCl. tert.butyl acrylate (tBuA) monomer was added after dilution in THF. For further details please see our published articles.¹⁻⁴

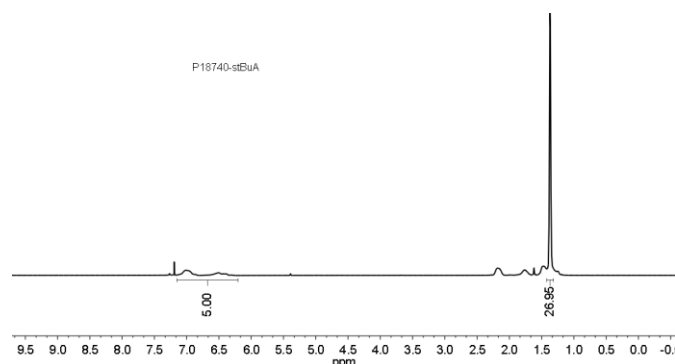
Characterization:

Polymer was analyzed by size exclusion chromatography (SEC) to obtain the molecular weight and polydispersity index (PDI). The final block copolymer composition was calculated from ¹H-NMR Copolymer Mw/Mn is determined by SEC.

Solubility:

Poly(styrene-b-tert.butyl acrylate) is soluble in THF, toluene, dioxane and CHCl₃.

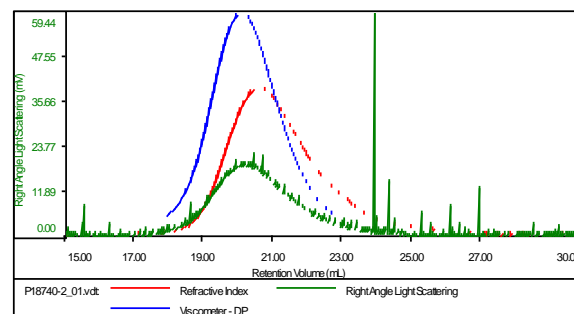
H NMR for the polymer:



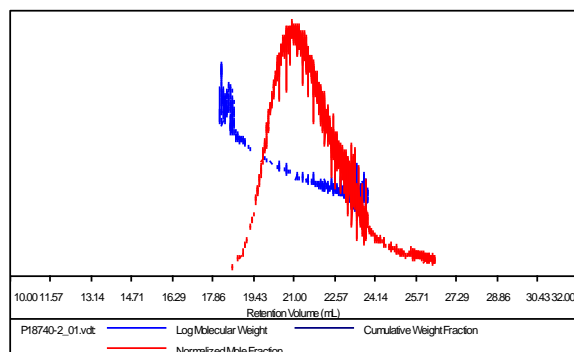
SEC for the sample :

Sample ID: P18740-StBuA

Concentration (mg/mL)	4.3922
Sample dn/dc (mL/g)	0.1020
Method File	PS80K-Apr15-2014-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF



Sample	Mn	Mw	Mp	Mw/Mn	IV
P18740-2_01.vdt	130,098	172,295	153,153	1.324	0.4043



References for further information:

1. S. K. Varshney, R. Fayt, Ph. Teyssie, and J.P. Hautekeer US Patent 5,264,527 (1993)
2. Ph. Teyssie, R. Fayt, **S. K. Varshney**, and C. Jacobs Eur. Pat. Appl., Jan 16, 1991 *Eur.Pat.408420*
Patent Assignees- Atochem S.A France. CA. Vol 114, 26, 247998." Star Block Copolymers based on Acrylates and Methacrylates and their Manufacture process".
3. Ph.Teyssie, R. Fayt, and **S. K. Varshney**, *Eur. Pat. Appl. Dec. 12, 1990. Eur. Pat.402204*
Patent Assignees-Norsolor S.A. France. CA Vol 114, 20, 186314."Catalyst for the the Anionic Living Polymerization (Meth)acrylates".