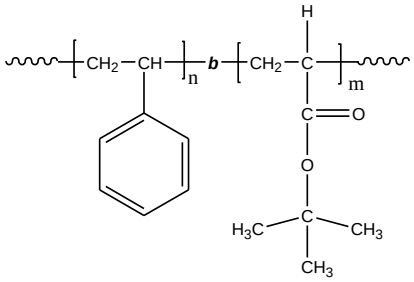
Sample Name: **Poly (styrene-b- tert.butyl acrylate)**

Sample #: **P40280-StBuA**

**Structure:**



**Composition:**

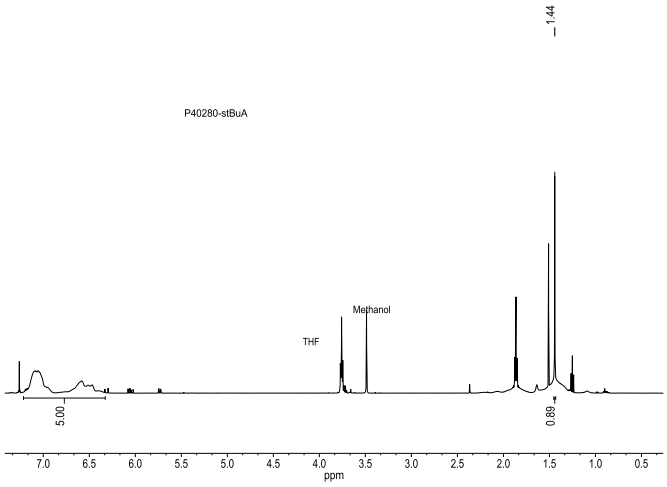
| Mn x $10^3$ S-b-tBuA | PDI |
|---|---|
| 58.0-b-6.5 | 1.06 |

**Synthesis Procedure:**
The polymer was synthesized by anionic process.

**Characterization:**
The polymer was characterized by $^1$H NMR, SEC, and FTIR.

**Solubility:**
Poly (styrene-b-tert.butylacrylate) is soluble in THF, toluene, dioxane and $CHCl_3$.

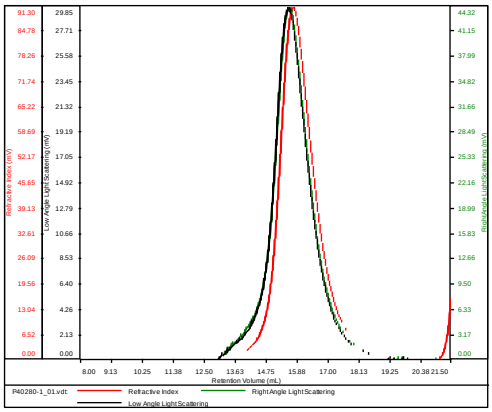
**$^1$H NMR (500 MHz, $CDCl_3$):**




**SEC of polystyrene block:**

P40280-StBuA

| | |
|---|---|
| Conc (mg/mL) | 5.0633 |
| dn/dc (mL/g) | 0.1650 |
| Method | PS80k_December-2016-0004.vcm |
| Solvent | DMF w 0.023M LiBr |
| Column | PSS |




| Sample | Mn | Mw | Mp | Mw/Mn | IV |
|---|---|---|---|---|---|
| P40280-1_01.vdt | 64,529 | 68,692 | 63,786 | 1.065 | 0.1291 |


**References:**

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".