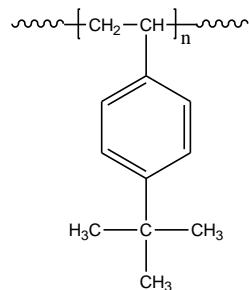


Sample Name: Poly(t-butyl styrene)

Sample #: P3659-4tBuS

**Structure:**

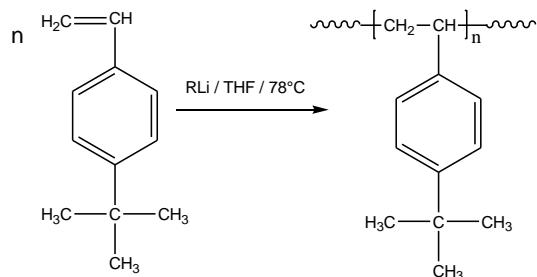


**Composition:**

$M_n \times 10^3$	PDI
368.5	1.05
$T_g$	151 °C

**Synthesis Procedure:**

Poly(t-butyl styrene) is synthesized by living anionic polymerization of t-butyl styrene and the reaction scheme is shown below.



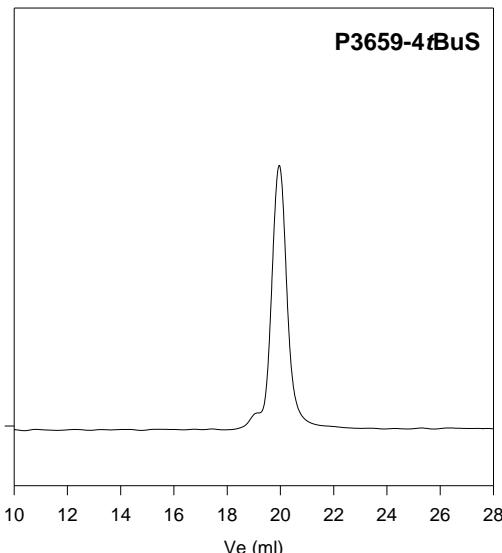
**Characterization:**

The molecular weight and polydispersity index (PDI) are obtained by size exclusion chromatography.

**Solubility:**

Poly(4-t-butyl styrene) is soluble in DMF, THF, toluene and  $\text{CHCl}_3$ . It precipitates from methanol, ethanol, water and hexanes.

**SEC profile of Homopolymer:**



Size exclusion chromatograph of poly4-tert.butylstyrene:

$$M_n = 368500 \quad M_w = 390000 \quad PI = 1.05$$

**DSC thermogram for the polymer:**

