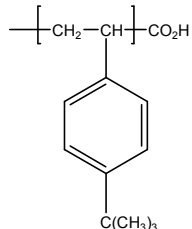


Sample Name:
Carboxy Terminated Poly(4-*t*-butyl styrene)

Sample #: P3665-4*t*BuSCOOH

Structure 1:

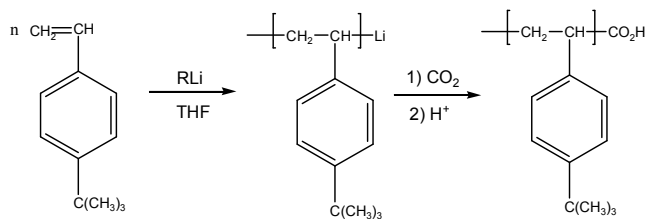


Composition:

Mn x 10 ³	PDI
4.0	1.08

Synthesis Procedure:

Carboxy Terminated Poly(4-*t*-butyl styrene) was prepared by anionic living polymerization of *tert*-butyl styrene in THF at – 78°C followed by termination with dried CO₂. The scheme of the reaction is illustrated below::



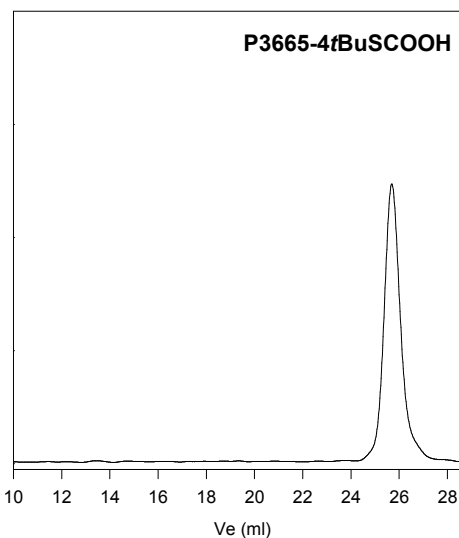
Characterization:

The molecular weight and polydispersity index of this polymer were determined before addition of the CO₂H function, by size exclusion chromatography (SEC) using a Varian liquid chromatograph equipped with a UV and refractive index detector. Polymer functionality was determined by titration with NaOH using phenolphthalein as the indicator.

Solubility:

Polymer is soluble in DMF, THF, toluene and CHCl₃. It precipitates from methanol, ethanol, water and hexanes.

SEC of Sample:



Size exclusion chromatography of mono COOH terminated poly 4-*t*-butyl styrene (before termination with CO₂)

M_n=4000, M_w=4500, PI=1.08 (functionality>95%)