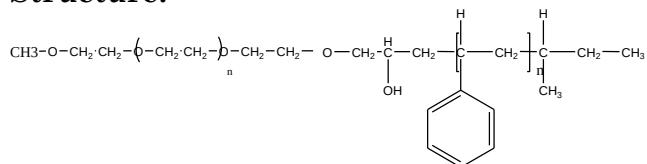


Poly(ethylene glycol)-b-Polystyrene bears OH functional group at the junction

Sample #: P8451-PS(OH)EG

Structure:

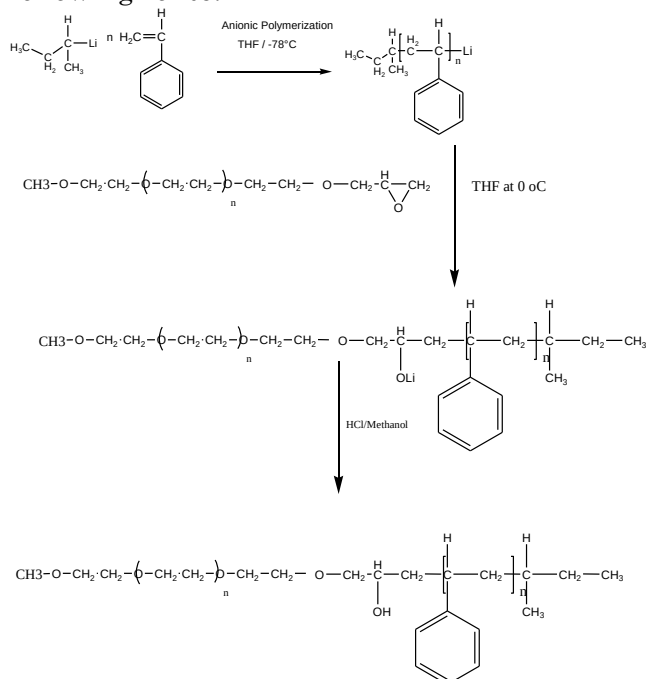


Composition:

Mn x 10 ³	PDI
5.0-b-2.5	1.15

Synthesis Procedure:

These polymers are synthesized by the following route:



Characterization:

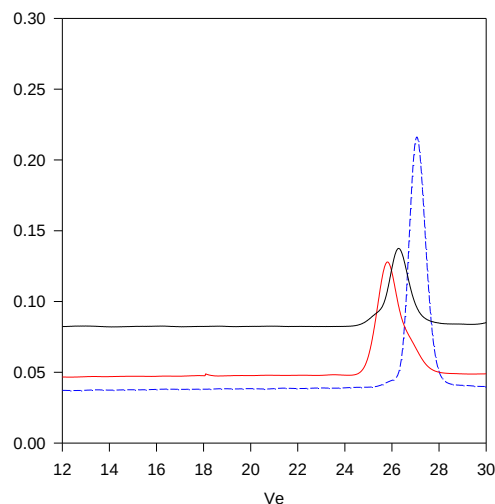
The molecular weight and polydispersity index of this polymer were determined by size exclusion chromatography (SEC) using a Varian liquid chromatograph equipped with a UV and refractive index detector. Polymer functionality was verified by FTIR/H NMR depending on the molecular weights. Furthermore the quantitative yield of the end functionalization was also proven in the extinction of the polymer in the ATRP process to synthesize different diblock copolymers.

Solubility:

Polymer is soluble in water, methanol and ethanol, THF, CHCl_3 . It is precipitated out from cold ethanol, isopropanol, hexane and ether.

SEC of Sample:

P8451-SOHEG



Size Exclusion Chromatography :

---- First PEG block bear terminal Epoxy group $M_n=2500$, $M_w/M_n=1.05$

— PS block Mn 5,000, $M_w/M_n=1.08$

— After reaction of Polystyryllithium with PEG-Epoxy end functionalized polymer
Crude Mn total: 7500 Mw/Mn: 1.15
Composition from HNMR

H NMR Spectrum of the Product:

