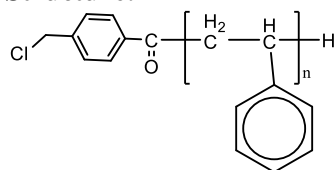


**Sample Name:** Poly(styrene),  $\alpha$ -(benzyl chloride)-terminated

**Sample #:** P42265C-SBzCl

**Structure:**

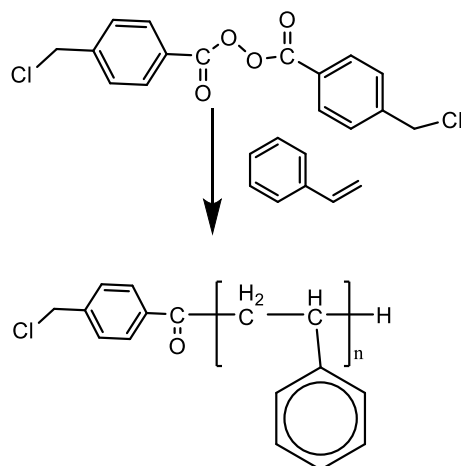


**Composition:**

$M_n \times 10^3$	PDI
130.0	1.8

**Synthesis Procedure:**

The following reaction scheme shows how the product was prepared:



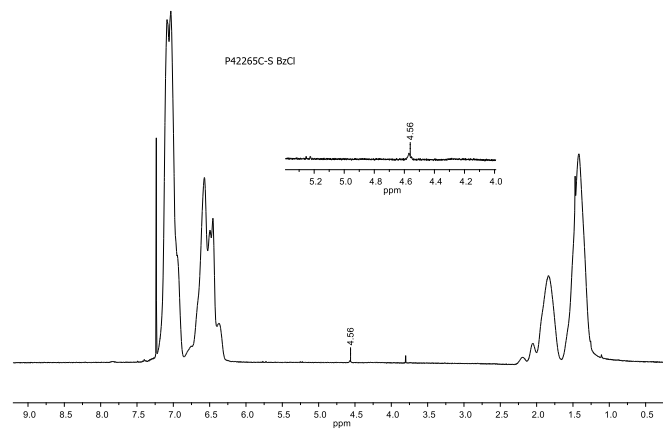
**Characterization:**

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 di-block copolymers.

**Solubility:**

Polymer is soluble in THF,  $\text{CHCl}_3$  and toluene. It is precipitated out from methanol, ethanol, hexane and ether.

**H NMR spectrum of the polymer:**

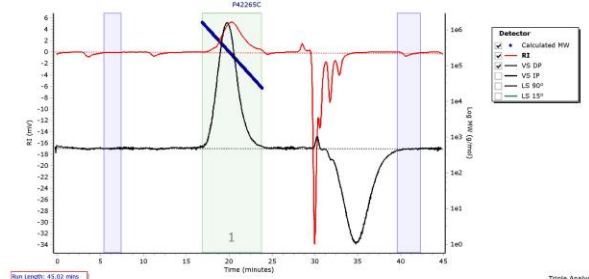


**SEC elugram of the Sample:**

Agilent GPC/SEC Software

P42265C

Chromatogram Plot



Molecular Weight Averages

Peak	$M_p$ (g/mol)	$M_n$ (g/mol)	$M_w$ (g/mol)	$M_z$ (g/mol)	$M_z+1$ (g/mol)	$M_v$ (g/mol)	PD
------	---------------	---------------	---------------	---------------	-----------------	---------------	----

Peak 1	204369	120968	234393	393556	616324	566114	1.803
--------	--------	--------	--------	--------	--------	--------	-------