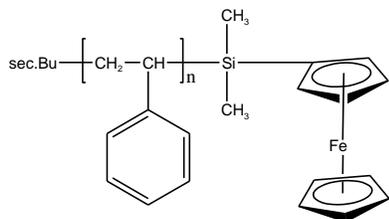


**Sample Name:**  
**Ferrocenyl Dimethyl Silane Terminated  
Polystyrene**

**Sample #: P8227- SFerro**

**Structure:**



**Composition:**

$M_n \times 10^3$	PDI
57.0	1.06
$T_g$ (°C)	104

**Synthesis Procedure:**

Ferrocenyl dimethyl silane terminated polystyrene was prepared by living anionic polymerization. The living polymer was terminated by ferrocenyl chlorodimethyl silane.

**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 determined by titration with NaOH using phenolphthalein as the indicator.

**Thermal analysis:**

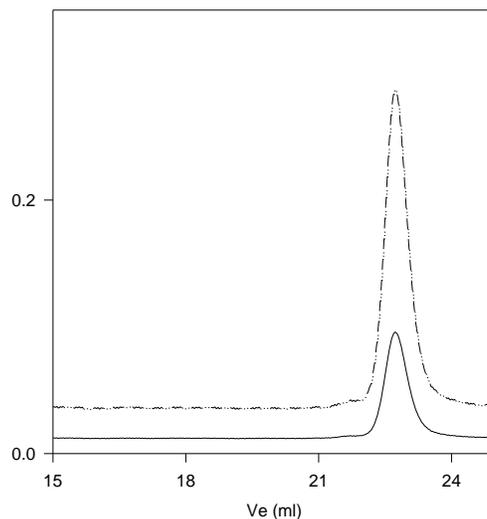
Thermal analysis of the samples was carried out using a differential scanning calorimeter (TA Q100) at a heating rate of 10°C/min. The inflection glass transition temperature ( $T_g$ ) has been considered.

**Solubility:**

Polymer is soluble in toluene, THF,  $CHCl_3$  and can be precipitated in hexane and methanol.

**SEC for the sample:**

**P8227-Sferro**



Size Exclusion chromatography of polystyrene terminated with ferrocene

----- Polystyrene,  $M_n=57000$ ,  $M_w=60500$  PI=1.06  
—— After terminated with methylated silicon-bridged ferrocenophane PI=1.06

**DSC thermogram for the sample:**

