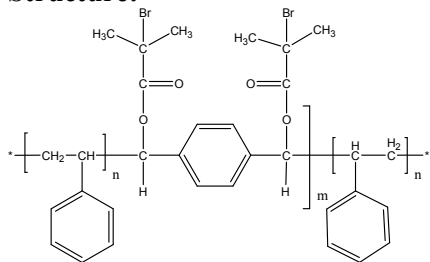
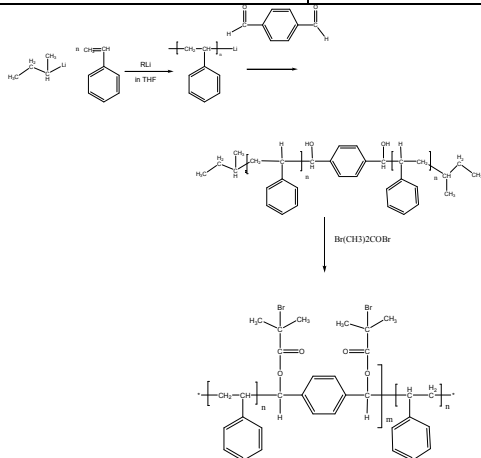


**Sample Name:****Dibromo groups in the center of Polystyrene chain****Sample #:** P18120A-S2Br**Structure:****Composition:**

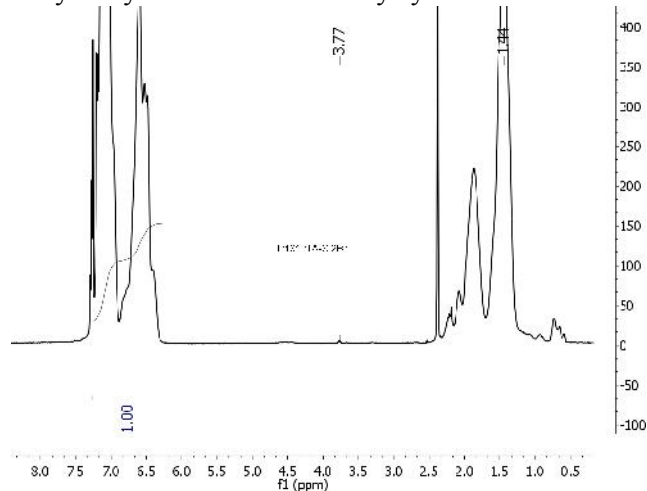
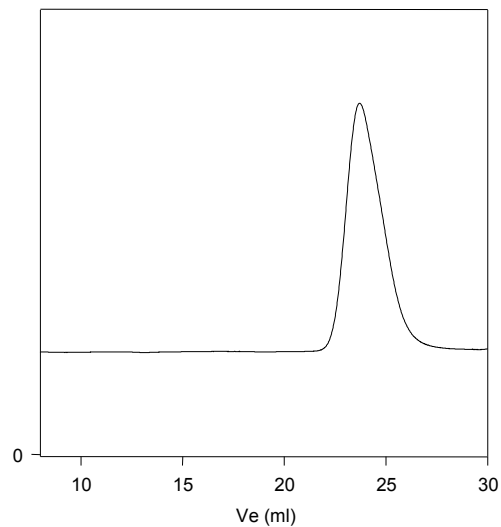
Mn x 10 <sup>3</sup>	PDI
10.0	1.18
T <sub>g</sub> (°C)	98 oC

**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.

**Thermal analysis:**

Thermal analysis of the samples was carried out on a TA Q100 differential scanning calorimeter at a heating rate of 10°C/min. The midpoint of the slope change of the heat flow plot of the second heating scan was considered as the glass transition temperature (T<sub>g</sub>).

**Dihydroxyl in the center of Polystyrene****SEC for the functional polymer:****P18120A-S2Br in the center**

Size Exclusion chromatography of poly (styrene-graft-tert. Butylacrylate):

— Polystyrene bearing 2 Bromo active center; M=10,000, M<sub>w</sub>/M<sub>n</sub>=1.18