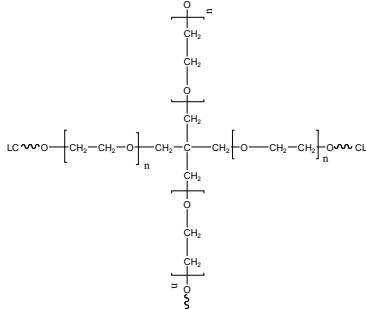


Sample Name:
**Four arm Poly(ethylene oxide –b-
 ε-caprolactone)**

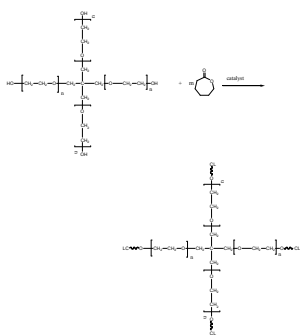
Sample #: **P10498-4EOCL**



Mn x 10 ³ Total (branch)	PDI
0.22-b-0.45 Mn : (0.05-b-0.114)	1.15
Dp of each branch: EO-b-CL <u>1.0-b-1.0 (average)</u>	

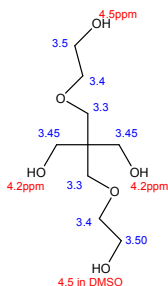
Synthesis Procedure:

The polymer was prepared by ring opening polymerization of caprolactone using Tin octoate as the catalyst and pentaerthritol ethoxylate that bears Mn of 224. The scheme of the reaction is illustrated below:

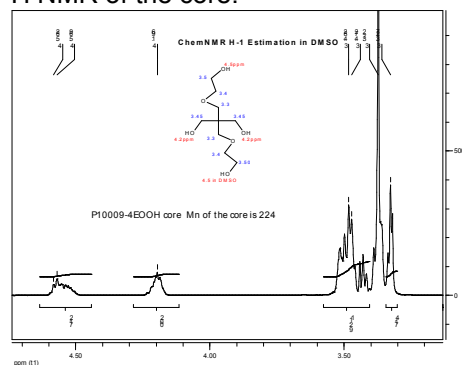


Characterization data for the core bearing Mn : 224

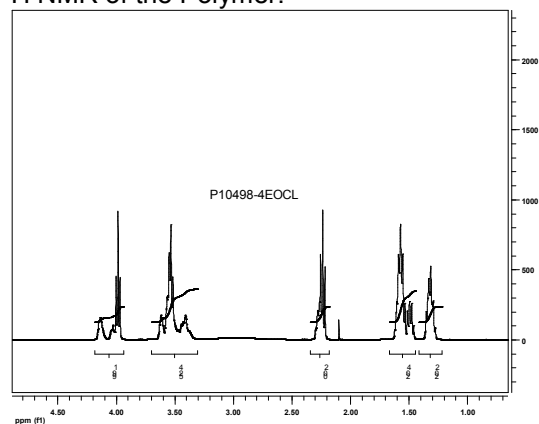
Chemical shifts of Core: Estimation in DMSO



H NMR of the core:



H NMR of the Polymer:



Characterization.

The Mn of the polymer is calculated from 1H-NMR spectroscopy by comparing the peak area of the core protons at about about 3.6 ppm with the ε-caprolactone protons at about 4.1 ppm. The polydispersity is determined by size exclusion chromatography (SEC): Varian liquid chromatograph equipped with UV and refractive detector. SEC columns from Supelco were used with THF containing 2 vol% (Et)3N as the eluent.