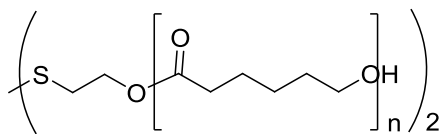


Sample Name: Poly(ϵ -caprolactone), bearing dithiodiethanol core

Sample #: P20022_CLdisulf

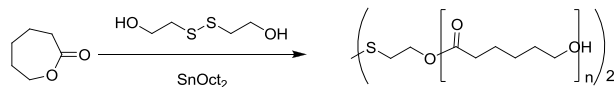
Structure:



Composition:

| | |
|--|-----|
| $M_n \times 10^{-3}$ HO-PCL-SS-PCL-OH | PDI |
| 7.0 (SEC-LS) | 1.1 |
| SS functionality $\geq 95\%$ | |

Synthetic Procedure: $(-S-PCL)_2$ is prepared by ring-opening polymerization of ϵ -caprolactone using disulfide-based initiator. The scheme of the reaction is illustrated below:



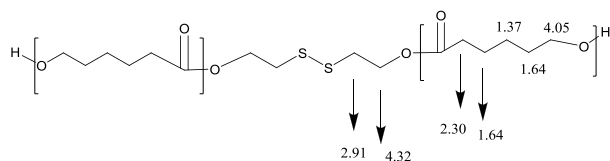
Characterization:

PCL bearing the disulfide linkage was analyzed by size exclusion chromatography with light-scattering detector (SEC-LS) to obtain the M_n and polydispersity (PDI).

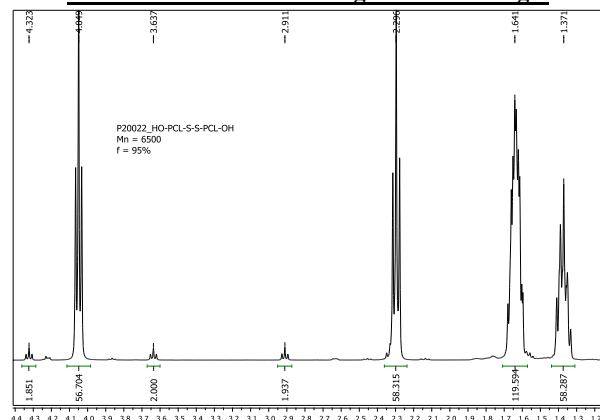
Solubility:

Poly(ϵ -caprolactone) is soluble in $CHCl_3$, Acetone, THF, insoluble in methanol, ethanol. Precipitated from Acetone or $CHCl_3$ into hexane/EtOH or ether/EtOH.

Chemical shifts assignments



1H -NMR of the PCL bearing disulfide linkage:



SEC of PCL-SS-PCL:

