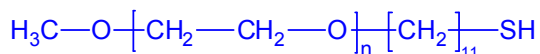


Sample Name:
Alkane (undecane) Thiol Terminated
Poly(ethylene glycol)

Sample #: P8869-EG-Alkane-SH

Structure:

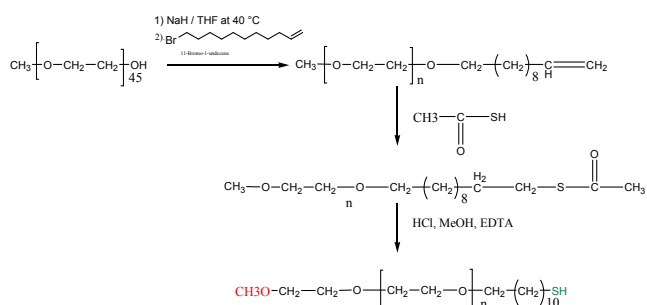


Composition:

Mn x 10 ³	PDI	SH functionality
2.0	1.10	>90%

Synthesis Procedure:

Alkane thiol terminated Poly(ethylene glycol methyl ether) was prepared by procedure reported in Langmuir, 2002, 18, 8862.

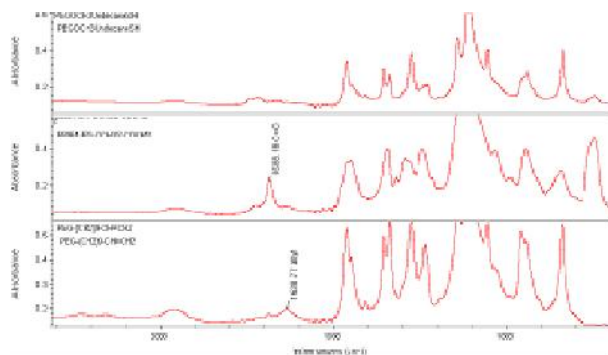


Characterization:

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.

FTIR:

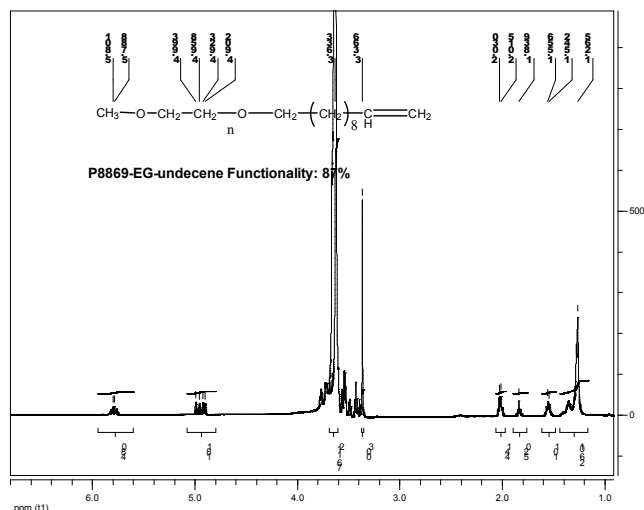
FTIR is used to monitor the reaction of thio ester terminated PEG to free SH. Disappearance of the C=O at 1688 cm⁻¹.



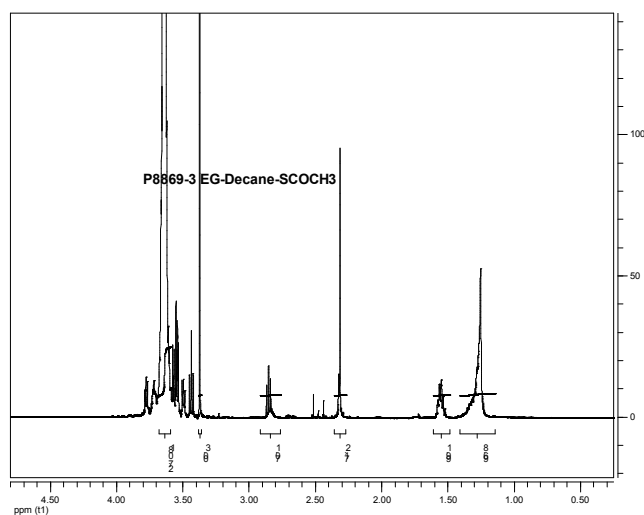
Solubility:

Polymer is soluble in water, methanol and ethanol, THF, CHCl₃. It is precipitated out from cold ethanol, isopropanol, hexane and ether.

1H NMR of CH3O-PEG-Undecene terminated:

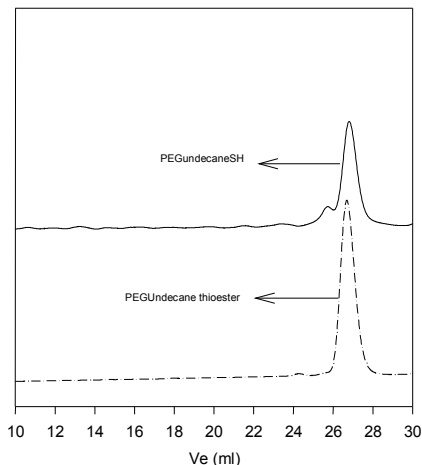


1H NMR of EGOCH3-Undecane-SCOCH3



SEC of the Sample:

P8869-EG-Alkane-SH



Size Exclusion Chromatography of thiol terminated Polyethylene oxide (SEC in THF at 35°C):

M_n = 2000, M_w = 2100 PI=1.10