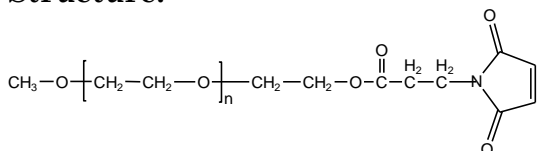


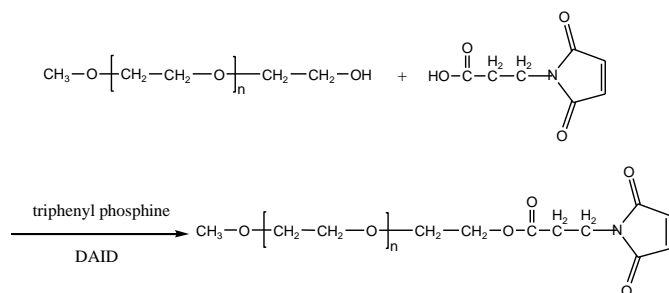
α -Methoxy ω - Maleimido end functionalized Poly(ethylene glycol)

Structure:



Mn x 10 ³	PDI
11.0	1.09
Maleimido functionality by HNMR	>98%

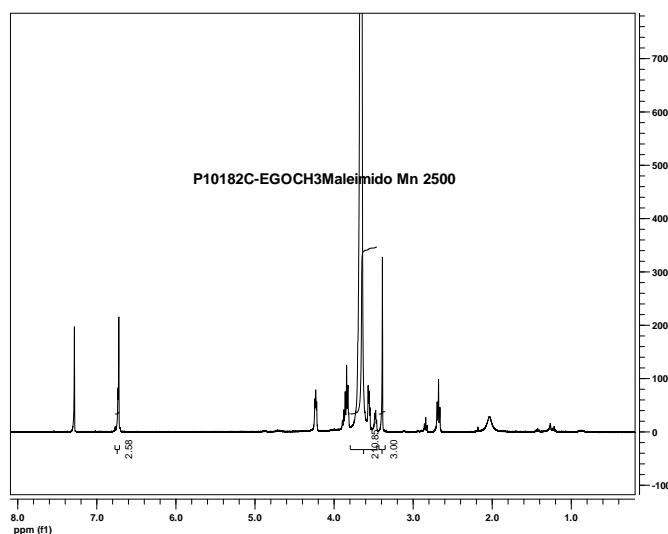
α -Methoxy ω - Maleimido end functionalized Poly(ethylene glycol) was synthesized by anionic living polymerization of ethylene oxide using ethylene glycol/potassium salt as an initiator, followed by the conversion of hydroxyl end group into 3-maleimidopropionate group by reacting them with 3-maleiimidopropionic acid. The reaction scheme is as follows.



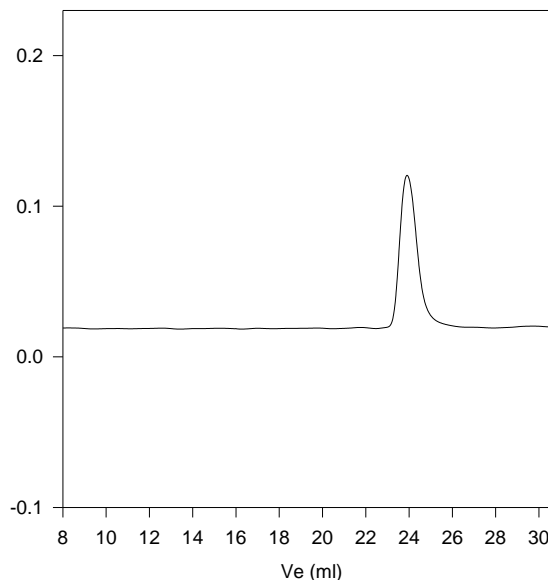
Functionalized poly(ethylene oxide) is soluble in CHCl_3 , THF, and precipitated out from cold diethyl ether.

Polymer was analyzed by size exclusion chromatography (SEC) to obtain the molecular weight and polydispersity index (PDI). The polymer obtained at each step and the final block copolymer composition was calculated from ^1H -NMR spectroscopy.

NMR of α -Methoxy ω - Maleimido end functionalized PEG:



P10182D-EGOCH3-Maleimido



Size exclusion chromatography of
 α -Methoxy, ω -Maleimido end functionalized Poly(ethylene glycol):
 — $M_n=11,000$, $M_w=12,000$, $M_w/M_n=1.09$