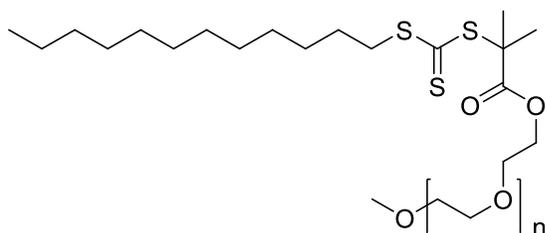


Sample Name: α -Methoxy- ω -[2-methyl-2-propionic acid dodecyl trithiocarbonate)-terminated Poly(ethylene oxide)

Sample #: P43235-mPEG-RAFT

Structure:



Composition:

| $M_n \times 10^3$ | PDI |
|-------------------|------|
| 5.0 | 1.09 |

RAFT functionality $\geq 90\%$ (NMR)

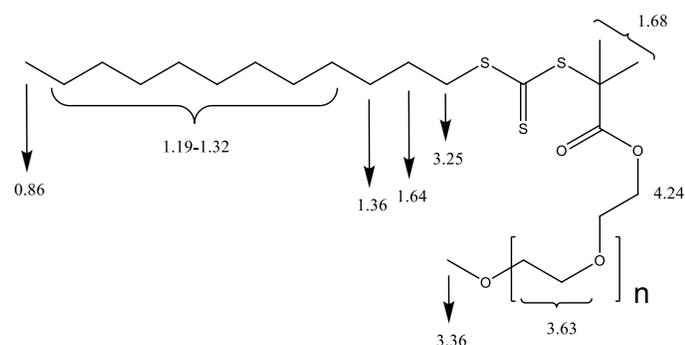
Characterization:

PEO bearing RAFT initiating site was analyzed by size exclusion chromatography (SEC) to obtain the polydispersity index (PDI). M_n and percentage of RAFT functionality was estimated from NMR by comparing the integrals ratio of the peaks at 3.36 and 3.63 ppm, and 3.36 and 4.24 ppm, respectively.

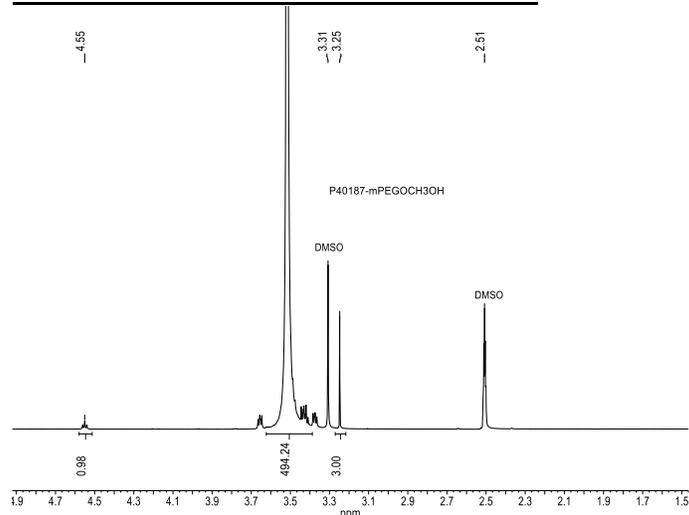
Solubility:

Poly(ethylene oxide) is soluble in toluene, CHCl_3 , Acetone, THF, water. It is insoluble in ether, hexane. Precipitated from DCM or CHCl_3 into ether.

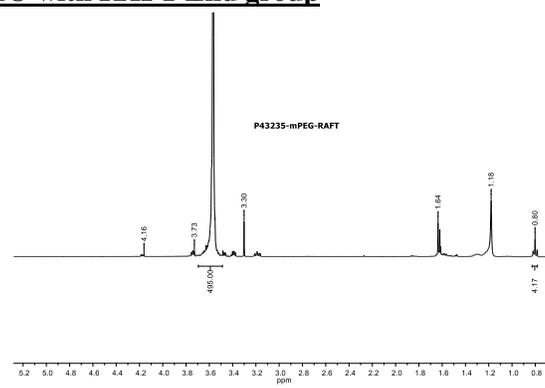
Chemical shifts assignments



$^1\text{H-NMR}$ of the Initial PEO- lot# P40187

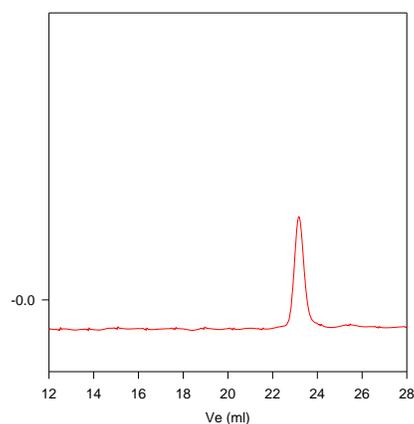


PEO with RAFT End group



SEC profile of the polymer:

P43235-mPEG_RAFT



Size exclusion chromatograph of poly(ethylene glycol):

$M_n=4,500$, $M_w=4,800$, $M_p=3,800$ Mw/Mn 1.09