

Sample Name:

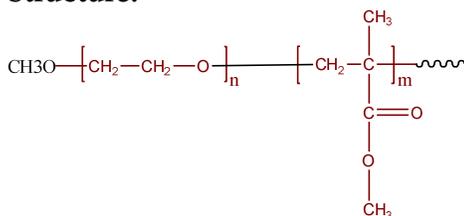
Poly(ethylene oxide-b-methyl methacrylate)

SEC of the block copolymer:

P6164-EOMMA

Sample #: P6164-EOMMA

Structure:

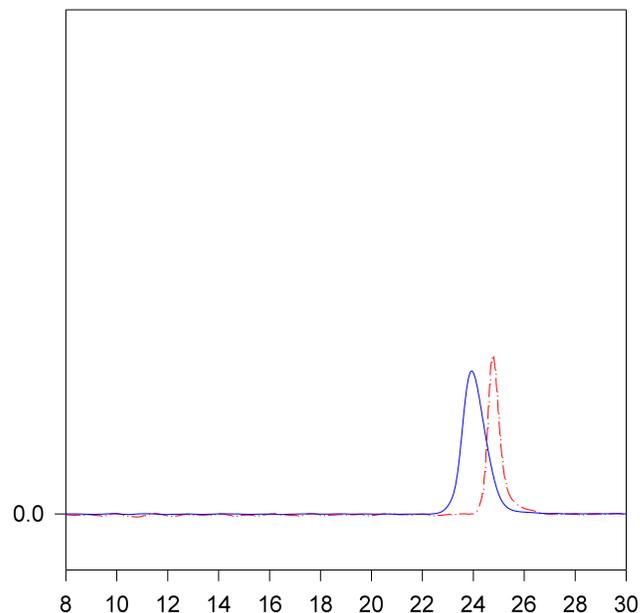
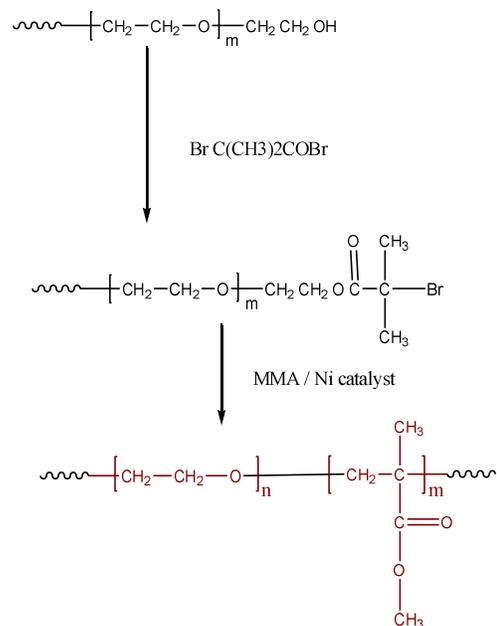


Composition:

Mn x 10 ³ PEO-b-MMA	PDI
10.5-b-18.0	1.14

Synthesis Procedure:

Poly(Ethylene oxide-methylmethacrylate) is prepared as the scheme below:



Size exclusion chromatography of poly(EO-b-MMA)

--- PEO, M_n=10500, M_w=11000, M_w/M_n=1.05

— Poly(ethylene oxide-b-methyl methacrylate)

Mn: PEO(10500)-b-MMA(18000) M_w/M_n=1.14

Characterization:

Polymer composition was determined by H NMR taking the integration of PEG block at 3.66 ppm and methyl ester of PMMA block at 3.62 ppm. Molecular weights of the first block and the Mw/Mn of the final and the first block was determined by SEC in THF.

Solubility:

Poly(ethylene oxide -b- MMA) is soluble in CHCl₃, THF, toluene. The polymer precipitated out from hexane.