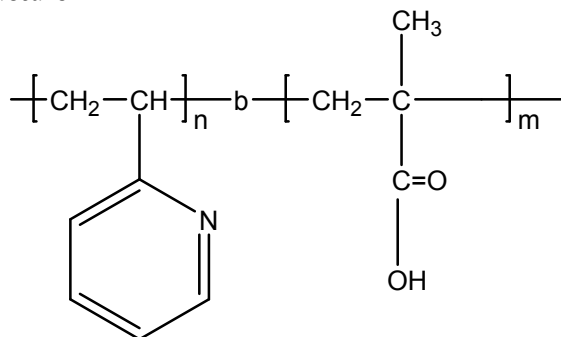


Sample Name:

Poly(2-vinyl pyridine -b- methacrylic acid)

Sample #: P5397-2VPMAA

Structure:



Composition:

Mn x 10 ³ P2VP-b-PMAA	PDI
10.5-b-0.6	1.10

Synthesis Procedure:

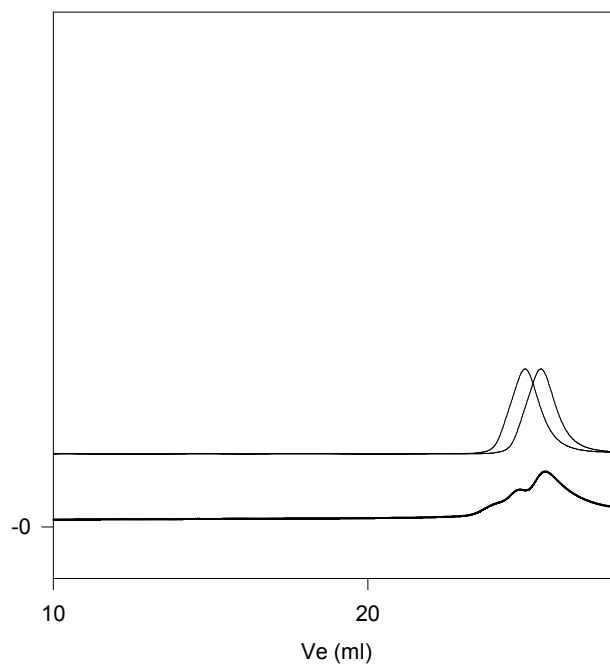
Poly(2-vinyl pyridine -b- methacrylic acid) is prepared by living anionic polymerization by successive addition of 2Vp followed by trimethylsilyl methacrylate. The trimethyl silyl group was liberated by addition of methanol containing few drops of dichloroacetic acid. The obtained polymer precipitated in hexane

Characterization:

An aliquot of the hydroxyl terminated poly(2-vinyl pyridine) was analyzed by size exclusion chromatography (SEC) to obtain the molecular weight and polydispersity index (PDI). The final block copolymer composition was calculated from ¹H-NMR spectroscopy by comparing the peak area of the 2-vinyl pyridine proton at about 8.2 ppm with the peak area of the ethylene oxide protons at about 3.6 ppm. Block copolymer PDI is determined by SEC.

SEC of the block copolymer:

P5397-2VPMAA



— Poly 2 vinyl pyridine, M_n=10500, PI=1.08
— Block Copolymer P2VP(10500)-b-PMA-TMS(1100), PI=1.10
After Deprotection: Mn 10500-b-600 Mw/Mn 1.10
Composition by HNMR

HNMR of the polymer:

