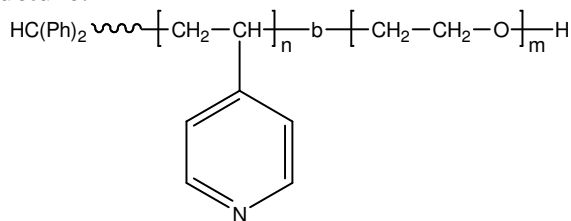


Sample Name: Poly(4-vinyl pyridine -b- ethylene oxide)

Sample #: P19952A-4VPEO

Structure:

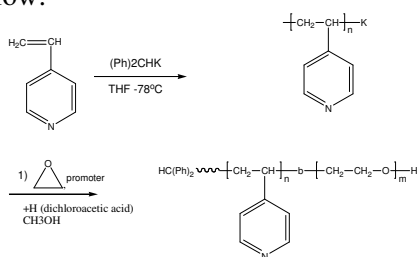


Composition:

Mn x 10 ³ P4VP-b-PEO	PDI
4.5-b-10.0	1.10

Synthesis Procedure:

Poly(4-vinyl pyridine -b- ethylene oxide) is prepared by living anionic polymerization of ethylene oxide using potassium salt based initiator. The reaction scheme is shown below:



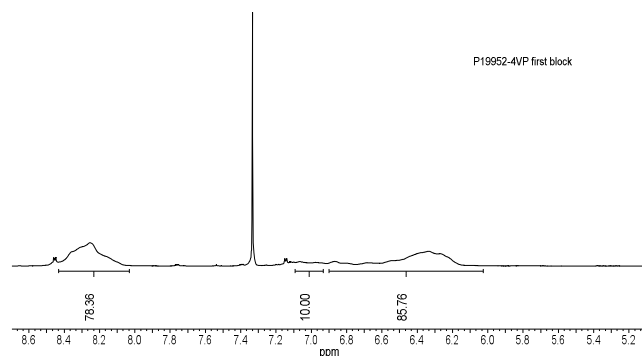
Characterization:

The polymer was characterized by SEC in DMF and ¹H NMR.

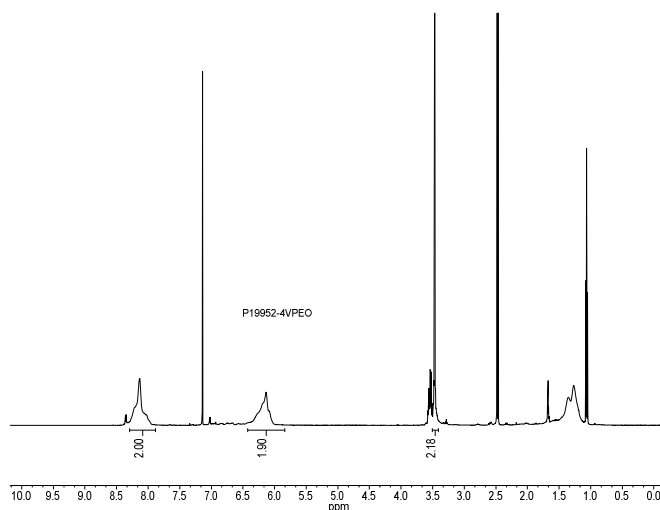
Solubility:

Poly(4-vinyl pyridine -b- ethylene oxide) is soluble in ethanol, DMF, chloroform, and THF (hot). Hexanes are its non-solvent.

¹H NMR spectrum of the first block

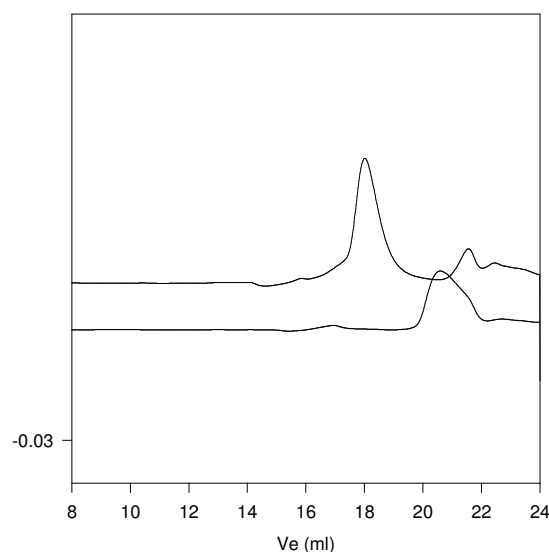


¹H NMR Spectrum of the block copolymer:



SEC elugram of the polymer:

P19952A-4VPEO



Size exclusion chromatography of poly(4-vinylpyridine)-b-poly(ethylene oxide): in DMF at 40 °C:

— Poly(4-vinylpyridine), M_n=4,500, M_w=5,200, PI=1.15
 — Block Copolymer P4VP(4,500)-b-PEO(10,000), PI=1.10