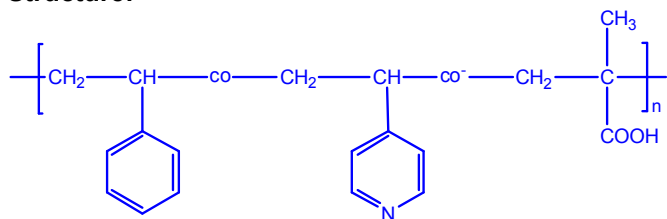


Sample Name:

Random Copolymer Poly(styrene-co-4-vinylpyridine and Methacrylic acid)

Sample #: **P14601A-S4VPMAAran**

Structure:



Composition:

Mn x 10 ³ PS-co-P4VP-co-MAA	PDI
550.00	4.5
S:4VP:MAA	12:73:15

Synthesis Procedure:

The polymer is prepared by RAFT process.

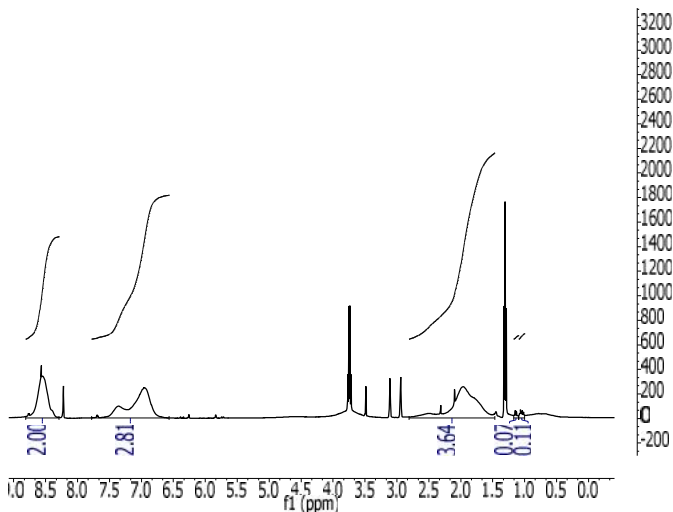
Characterization:

The polymer was analyzed by size exclusion chromatography (SEC) to obtain the molecular weight and polydispersity index (PDI). The copolymer composition was calculated from ¹H-NMR spectroscopy by comparing the peak area of 4VP protons at 8.28 ppm with the styrene protons at about 6.1-7.2 ppm that deducts the contribution of the 4VP protons.

Solubility:

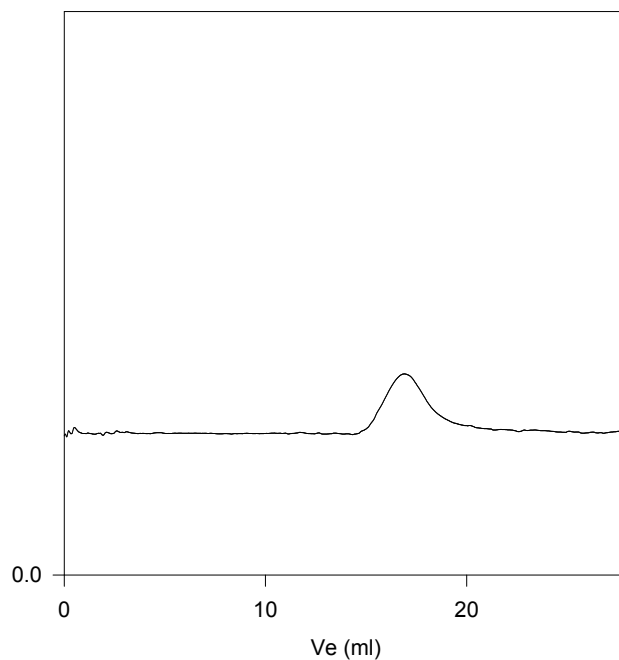
The polymer is soluble in acetone, THF, DMF

¹H-NMR Spectrum of the random copolymer:



SEC of the random copolymer:

**P14601-S4VPMAA ran
Run in DMF at 60 oC**



Random S4VPMAA: M_n=550,000, M_w=2,470,000, PI=4.5
W.r.t Polystyrene