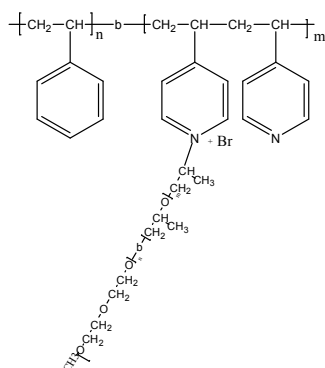


Sample Name: Poly(styrene-co- 4-vinyl pyridine)
quaternized with PEOPO block copolymer

Sample #: P10379C-S4VPQEOP

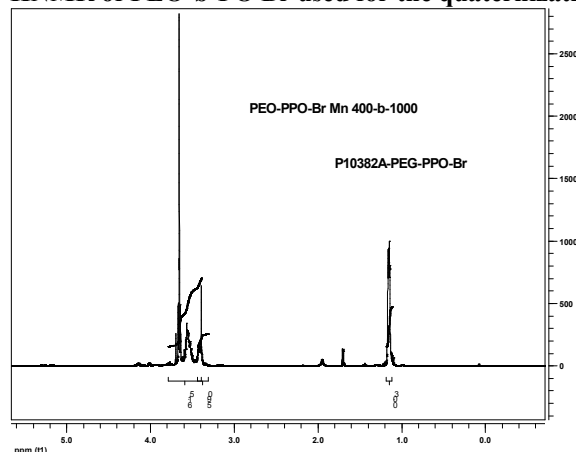
Structure:



Composition: S:4VP 20:80 ratio

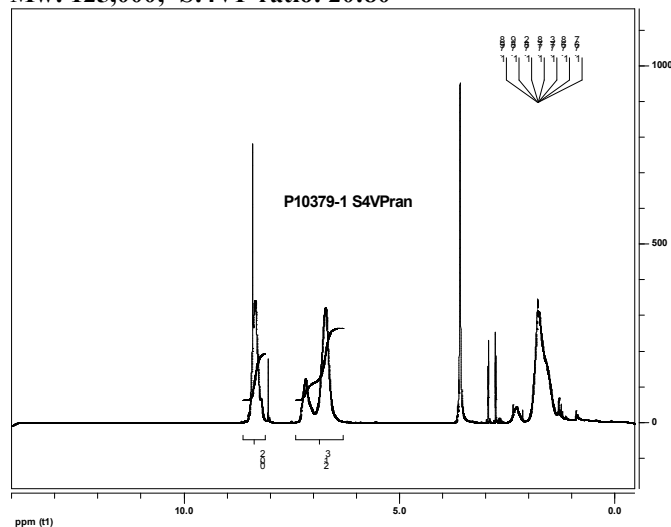
Mn $\times 10^3$ PS-co-P4VP	PDI
125.0	-
% Quaternization with PEOPO block Mn of 400-b-1000	$\approx 26\%$

HNMR of PEO-b-PO Br used for the quaternization :

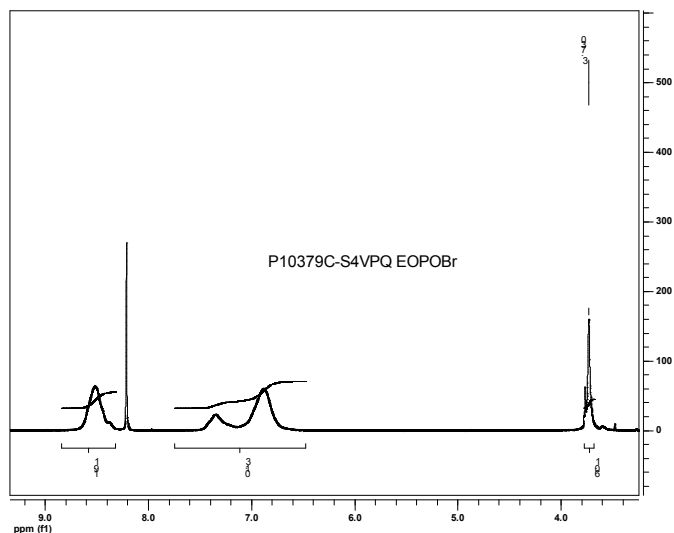


HNMR of S4VP random copolymers used:

Mw: 125,000; S:4VP ratio: 20:80



¹H NMR of the Copolymer after quaternization:



Characterization:

The composition was calculated from ¹H-NMR spectroscopy by comparing the peak area of the styrene protons at 6.3-7.2 ppm with the peak area of the 4-vinyl pyridine protons at about 8.5 ppm.

Quaternization:

Polymer was dissolved in distilled DMF.

S4VP copolymer: 4g

EOPOBr Block copolymer: 1.5g

DMF Stirrer at 60 °C over night

Precipitated in Hot hexane to remove any unreacted EOPO block copolymer;

Yield: 5.3g

Solubility:

Polymer is soluble in DMF, NMP and DMSO and also in methanol.