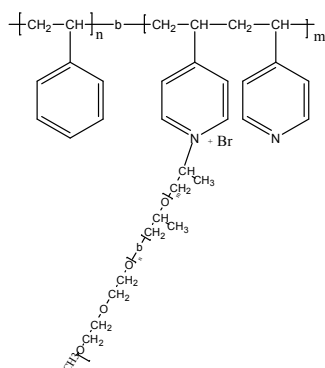


**Sample Name:** Poly(styrene-co- 4-vinyl pyridine)  
quaternized with PEOPO block copolymer

**Sample #:** P10379B-S4VPQEPO

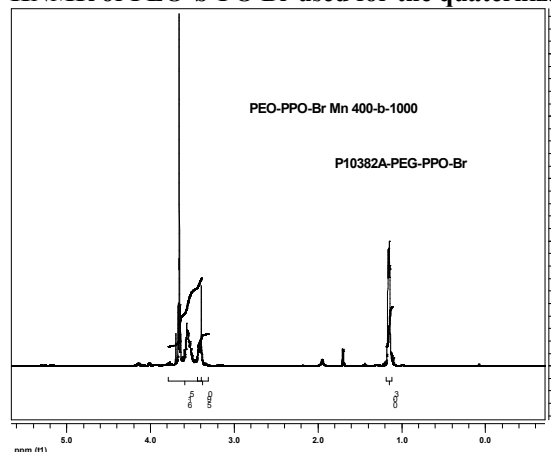
**Structure:**



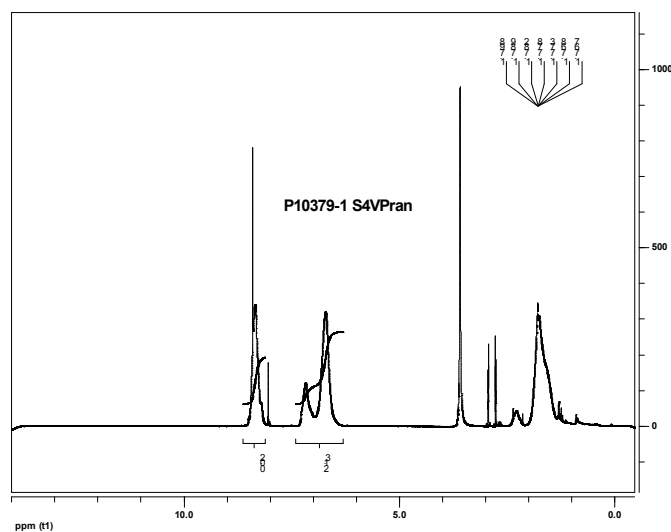
**Composition:** S:4VP 20:80 ratio

Mn $\times 10^3$ PS-co-P4VP	PDI
125.0	-
% Quaternization with PEOPO block Mn of 400-b-1000	$\approx 12\%$

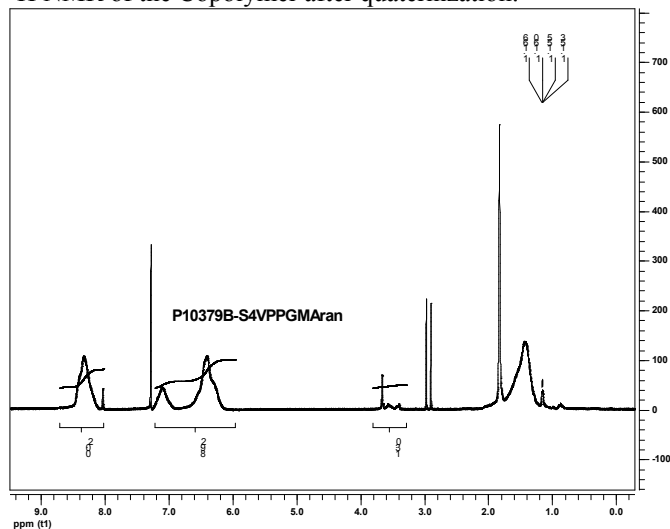
**HNMR of PEO-b-PO Br used for the quaternization :**



**HNMR of S4VP random copolymers used: Mw: 125,000  
S:4VP 20:80 ratio**



**<sup>1</sup>H NMR of the Copolymer after quaternization:**



**Characterization:**

The composition was calculated from <sup>1</sup>H-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.

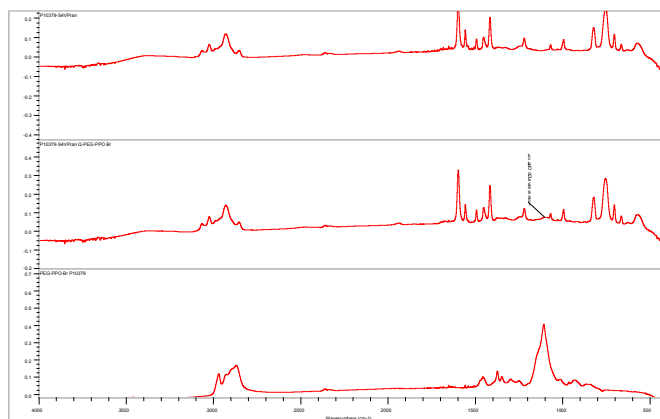
S4VP copolymer: 7g

EOPOBr Block copolymer: 1.5g

DMF Stirrer at 60 oC over night

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

Yield: 7.8g



**Solubility:**

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