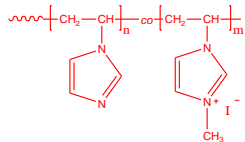


Sample Name:

Poly(N-vinyl imidazole-partially quaternized with CH₃I)

Sample #: **P1988-VIMDZQ**

Structure:

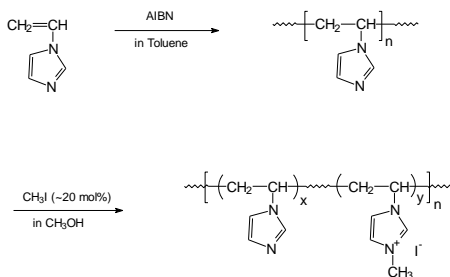


Composition:

Mn x 10 ³	PDI
30.0 (Degree of quaternization is ca. 29%)	3.0

Synthesis Procedure:

Poly(N-vinyl imidazole) is synthesized by free-radical polymerization in toluene using AIBN as the initiator. The partially quaternization was performed in methanol with iodomethane. The reaction scheme is shown below.



Characterization:

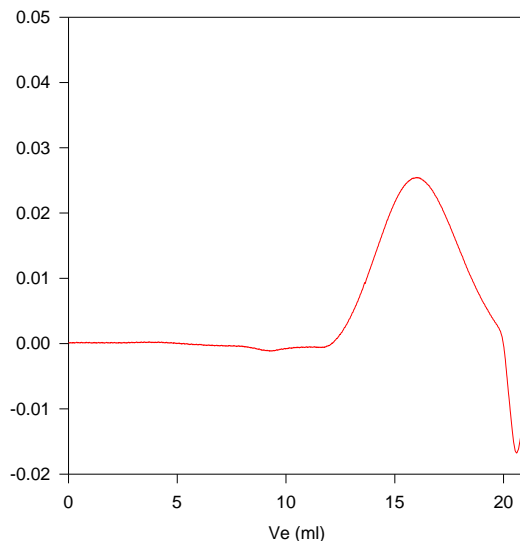
The molecular weight and polydispersity index (PDI) of Poly(N-vinyl imidazole) are obtained by size exclusion chromatography using water with 0.1%TFA and 0.2M NaCl as eluent. The degree of quaternization is calculated based on the results of element analysis. NMR spectrum was recorded on Varian 500 in deuterated methanol.

Solubility:

Polymer is soluble in methanol, ethanol. Toluene is the non-solvent.

SEC of Homopolymer (before quaternization):

P1988-VIMDZQ



Size exclusion chromatography of poly(vinylimidazole)

with respect to quaternized poly (2 vinyl pyridine) tandards:
Eluent: Water with 0.1% trifluoroacetic acid and 0.2M NaCl
M_n=30,000 M_w=90,000, PI=3.0

NMR Spectrum:

