Sample Name: Poly(2-vinyl N-methyl pyridinium iodide)

Sample #: P1380-2VPQ

Structure:

$$CH_2-CH$$
 N
 $I^*CH_3^+$

Composition:

Mn x 10 ³	PDI
18.0	1.09

Synthesis Procedure:

Poly(2-vinyl N-methyl pyridinium iodide) is obtained by anionic polymerization of 2-vinyl pyridium followed by stirring with distilled CH_3I in an 8:2 mixture of THF / DMF and precipitation from hexanes.

Characterization:

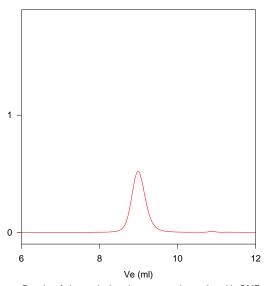
The molecular weight and polydispersity index (PDI) of poly(2-vinyl pyridium) are obtained by size exclusion chromatography. The quaternization is confirmed by FTIR with the disappearance of the -N= absorbance peak at 1412 cm⁻¹ and the degree of quaternization is generally over 8%.

Solubility:

Poly(2-vinyl N-methyl pyridinium iodide) is soluble in methanol.

SEC of Homopolymer:

P1380-2VPQ



Results of size exclusion chromatography analysed in DMF:

 $\rm M_n=9100, M_w=9900, M_z=10700, PI=1.09$ Precursor for the Sample # P1380-2VPQ After Queternization : M Mn 18,000 Mw/mN 1.09