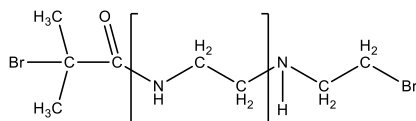


Sample Name: Poly(ethylene imine)

Sample #: P42539-EI

Structure:

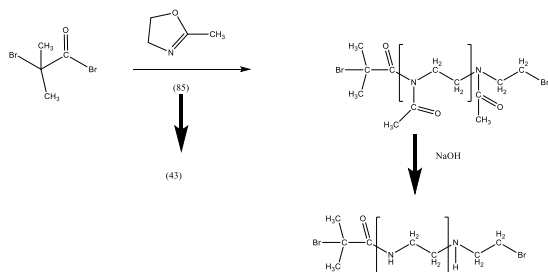


Composition:

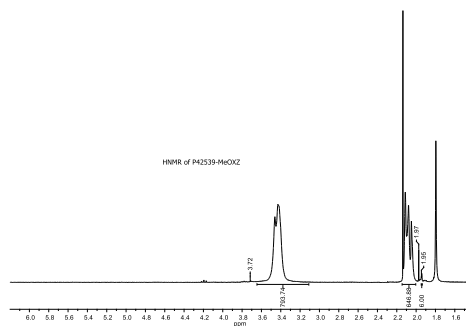
| Mn x 10 ³ | PDI |
|----------------------|------|
| 12.0 | 1.26 |

Synthesis Procedure:

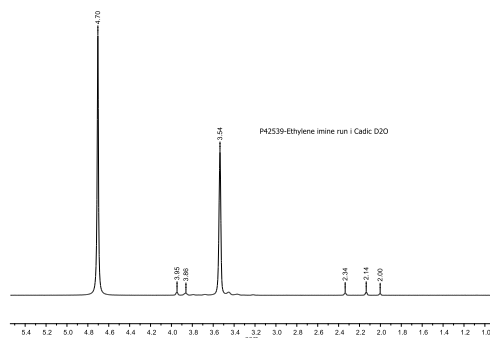
Poly(2-methyl oxazoline) is prepared by cationic process. This was followed by a base hydrolysis to obtain poly(ethylene imine).



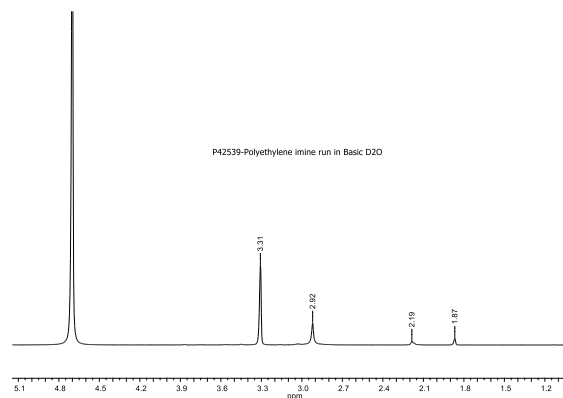
¹H-NMR Spectrum of the polymer:



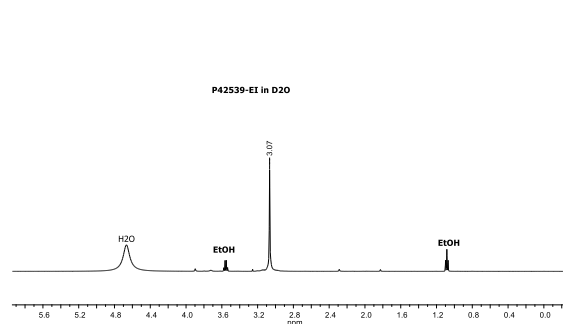
¹H-NMR Spectrum of the polymer (run in acidic D₂O):



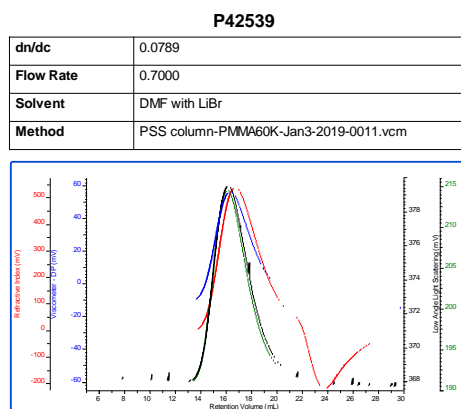
¹H-NMR Spectrum of the polymer (run in basic D₂O):



¹H-NMR Spectrum of the polymer (run in D₂O):



SEC profile in DMF:



| Sample | Mn | Mw | Mp | Mw/Mn |
|---------------------|--------|--------|--------|-------|
| P42539_1_2020-07-09 | 23,356 | 29,499 | 29,520 | 1.263 |

After hydrolysis of Methyl oxazoline Mn 12,000 PI: 1.26