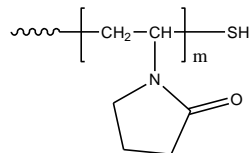


Sample Name: Thiol terminated Poly(N-vinylpyrrolidone) (70%)

Sample #: P7339B-NVPSH

Structure:

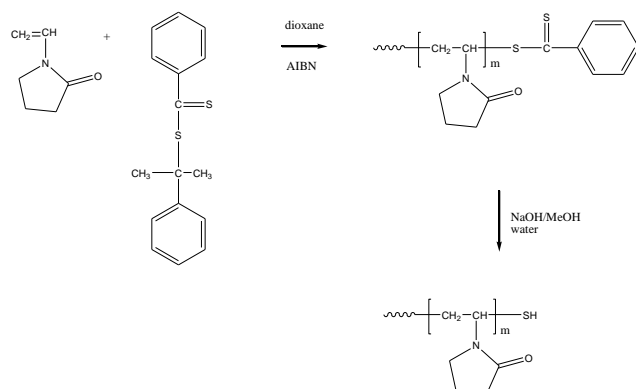


Composition:

Mn x 10 ³	PDI
1.2	1.4

Synthesis Procedure:

The polymer was prepared by reversible addition-fragmentation chain transfer polymerization (RAFT) of N-vinyl pyrrolidone with a AIBN as initiator and cumyl dithiobenzoate as chain-transfer agent, followed by hydrolysis. The scheme of the reaction is illustrated below:



Characterization:

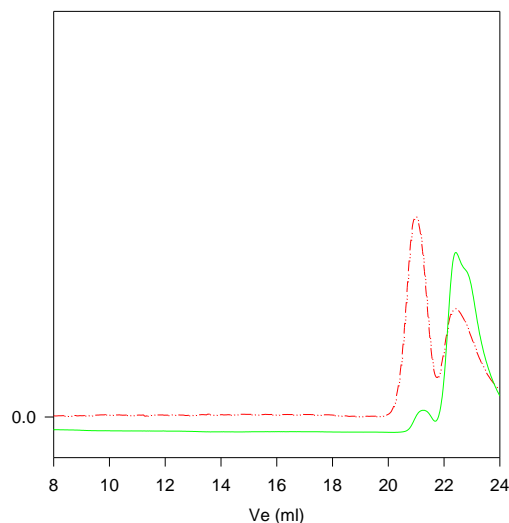
The molecular weight was calculated from elemental analysis and polydispersity was determined by size exclusion chromatography (SEC) using a Varian liquid chromatograph equipped with a UV and refractive index detector and DMF containing 0.05M LiBr salt as eluent.

Solubility:

The polymer is soluble in water methanol, ethanol, DMF, and dioxane, not soluble in hexane.

SEC of Sample:

P7339B-NVPSH



Size exclusion chromatography(DMF eluent 0.05M LiBr):

--- After oxidation in DMF with I as oxidation agent, PNVP-S-S-PNVP
area oxidized : area unoxidized = 105:100 , 70% of the polymers are terminated with thiol

— Thiol ended Poly(N-vinylpyrrolidone), Mn=1200, Mw=1700, PI=1.4
The Mn was determined by standard PNVP