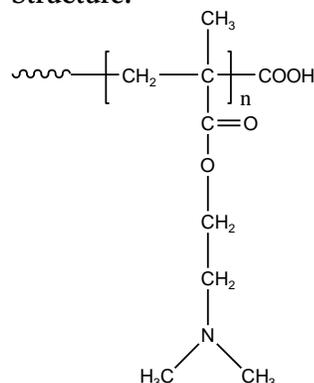


Sample Name:

Carboxy Terminated Poly(NN-dimethyl amino ethyl methacrylate)

Sample #: P8555-DMAEMA-COOH

Structure:

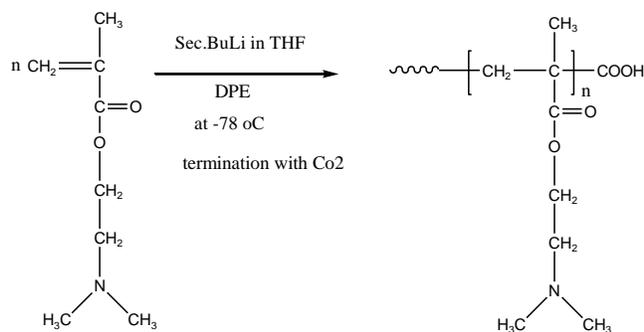


Composition:

Mn x 10 ³	PDI	COOH functionalit y
4.2	1.14	0.80%

Synthesis Procedure:

Carboxy Terminated Poly(NN-dimethyl amino ethyl methacrylate) was prepared by anionic living polymerization of (NN-dimethyl amino methacrylate in THF and termination of the polymerization with dried CO₂. The scheme of the reaction is illustrated below:



Characterization:

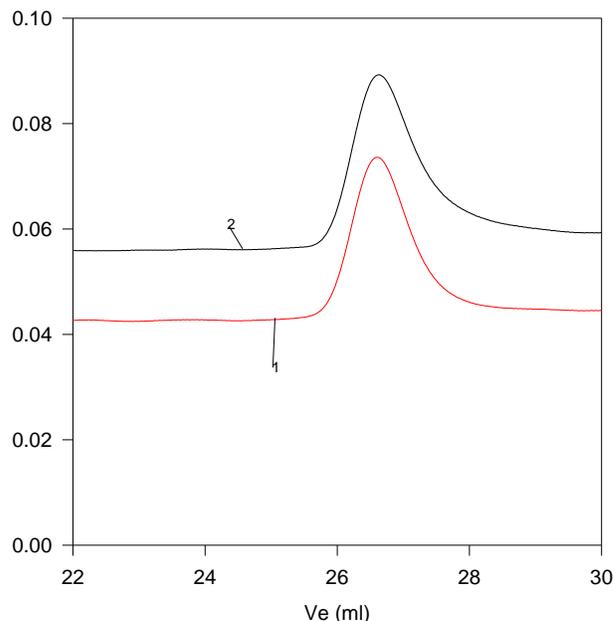
The molecular weight and polydispersity index of this polymer were determined by size exclusion chromatography (SEC) using a Varian liquid chromatograph equipped with a UV and refractive index detector before the addition of the CO₂. COOH functionality was determined by acid base titration.

Solubility:

The polymer is soluble in THF, Toluene, chloroform and acetone etc.

SEC of Sample:

P8555-DMAEMACOOH



Size exclusion chromatography of carboxy terminated poly(NN dimethyl amino ethyl methacrylate) before (1) and after terminating (2) with CO₂

M_n=4200, M_w=4800, PI=1.14, functionality>0.80%