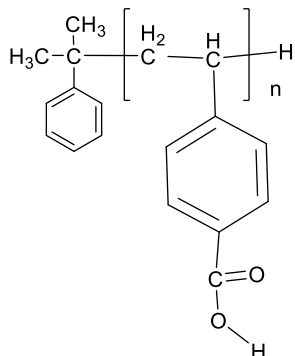


Sample Name: Poly(4-vinyl benzoic acid)

Sample #: P43013B-VBA

Structure:



Composition:

Mn x 10 ³	PDI
5.0	1.14
Traces of unreacted monomer	> 0.1%
Presence of unhydrolyzed tert Butyl ester	>1%

Synthesis Procedure:

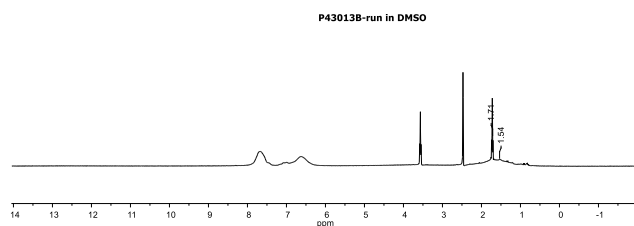
Using cumyl potassium initiator and polymerization at -95 °C

Poly(4-vinyl benzoic acid) is synthesized by making the 4-t-butyl styrene monomer followed by polymerization and hydrolysis of the t-butoxy group.

Characterization:

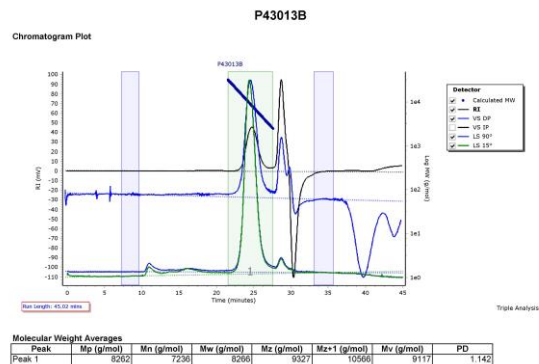
The product was characterized by size exclusion chromatography (SEC) and ¹H NMR data analysis.

¹H-NMR spectrum of Poly 4-Vinyl Benzoic acid:



Polymer is soluble in DMSO and its sodium salt in water

SEC of Homopolymer:



After Hydrolysis of ester to COOH Mn: 5,000

FT-IR spectrum:

