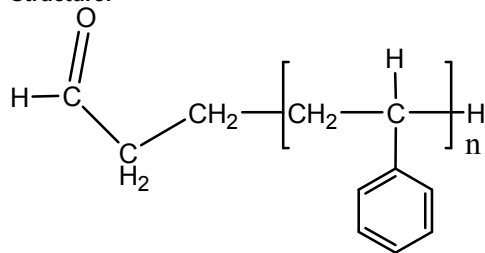


Sample Name:
Propionaldehyde Terminated Polystyrene

Sample #: P10112A
S-CHO (anionic process)

Structure:



Composition:

Mn x 10 ³	PDI	Functionality %
4.2	1.25	>67%

Synthesis Procedure: Anionic Process

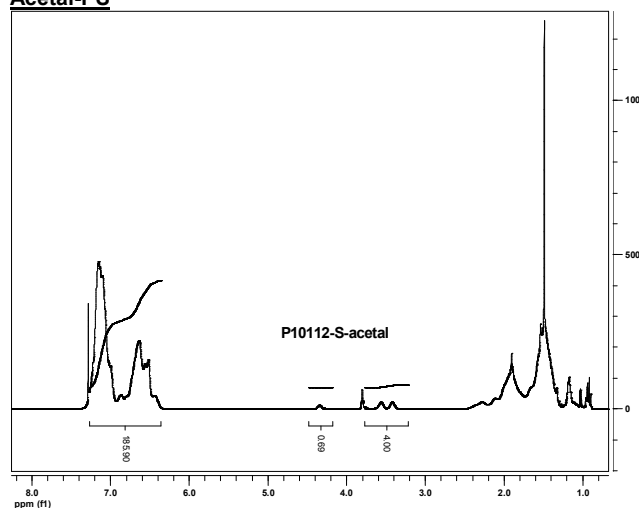
Characterization:

The molecular weight and polydispersity index of this polymer were determined before addition of the CO₂H function, by size exclusion chromatography (SEC) using a Varian liquid chromatograph equipped with a UV and refractive index detector. Polymer functionality was determined by titration with NaOH using phenolphthalein as the indicator.

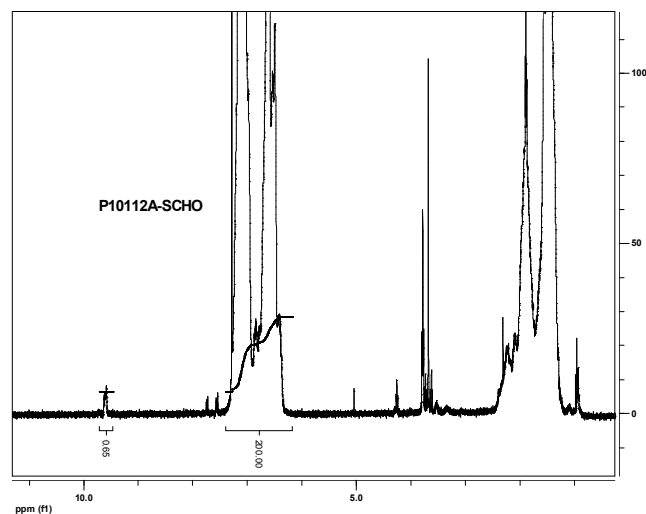
Deprotection of diethyl acetal was performed using trifluoroacetic acid in THF OT HCl/THF at room temperature.

Solubility: Polymer is soluble in toluene, THF, CHCl₃ and can be precipitated in water, cold methanol.

¹H NMR of Sample:
Acetal-PS

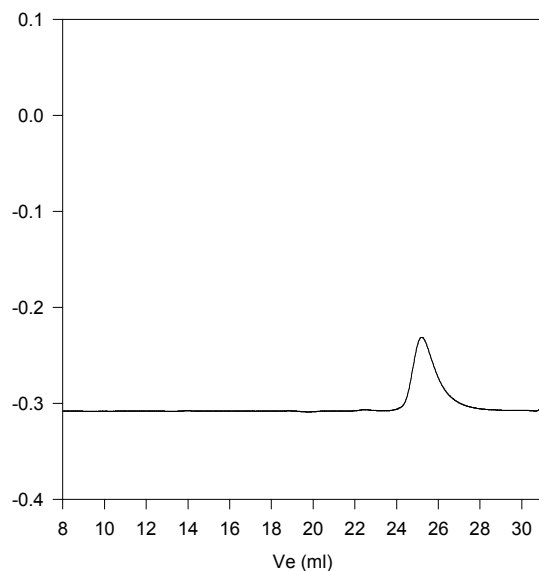


¹H NMR for the PS-CHO



SEC of Sample:

P10112-SCHO



Size exclusion chromatography of polymer
 — PS, M_n=4,200, M_w=5,200, Mw/Mn=1.25