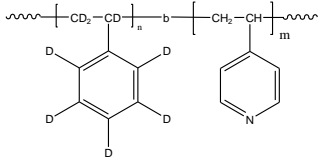


Sample Name: Deuterated Polystyrene (d<sub>8</sub>)- 4 vinyl pyridine (protonated)

Sample #: P40648-dPS4VP

Structure:



Composition:

Mn x 10 <sup>3</sup> (dPS-b-4VP)	PDI
15.5-b-7.0	1.03
T <sub>g</sub> for dPS block	104°C
T <sub>g</sub> for 4Vp block	149 oC

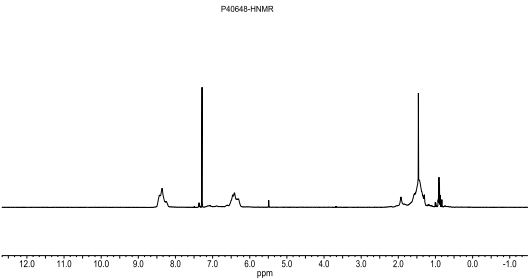
Synthesis Procedure:

The polymer was synthesized by anionic polymerization process.

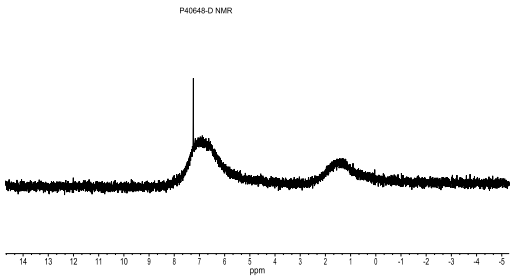
Characterization:

The product was characterized by size exclusion chromatography (SEC) and NMR.

HNMR of the polymer:



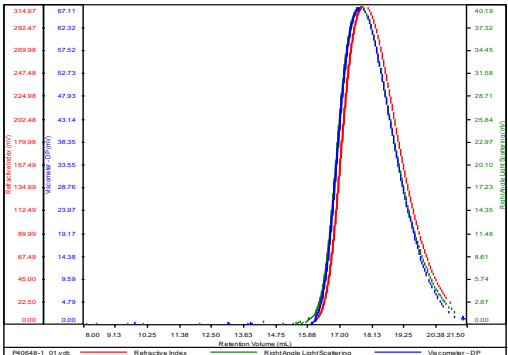
H<sup>2</sup> NMR of the polymer:



SEC elugram of the dPS Block:

P40648-1 dPS block

Conc	33.9460
divide	0.1600
Solvent	DMF w 0.023M LiBr
Flow Rate	0.7000
Method	PSS30k-May2017-0000.vcm

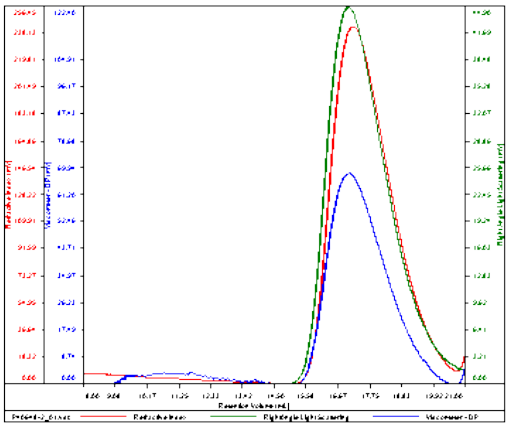


Sample	Mn	Mw	Mp	Mw/Mn	IV
P40648-1_01.volt	15,245	15,661	15,565	1.027	1.0000

SEC elugram of the product:

P40648-dPS4VP

Conc	26.4501
divide	0.1600
Solvent	DMF w 0.023M LiBr
Flow Rate	0.7000
Method	PSS30k-May2017-0000.vcm



Sample	Mn	Mw	Mp	Mw/Mn	IV
P40648-2_01.volt	22,435	23,183	22,410	1.025	1.0000

DSC thermogram for dPS block:

