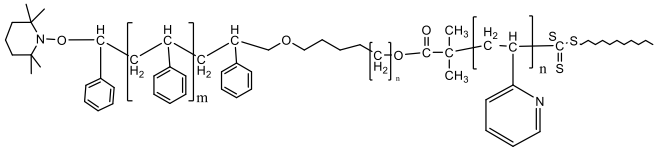
Sample Name: **Poly(styrene)-b-poly(methylene)-b-poly (2-Vinyl Pyridine)**

Sample #: **P42194C-SM2VP**

Structure:

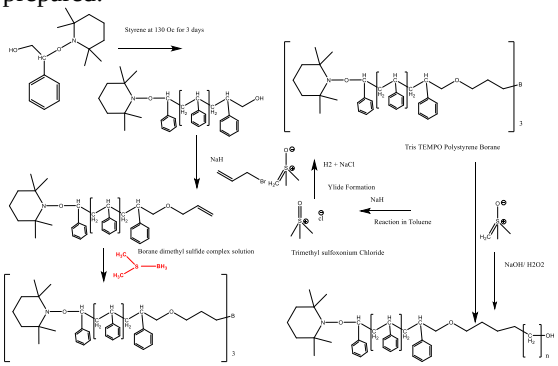


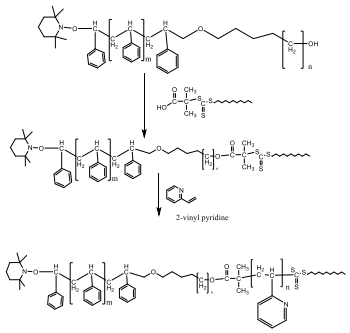
Composition:

Mn x 10^3 S-b-M-b-2VP	PDI
2.5-b-1.5-b-22.0	1.4

Synthesis Procedure:

The following reaction scheme shows how the product was prepared:





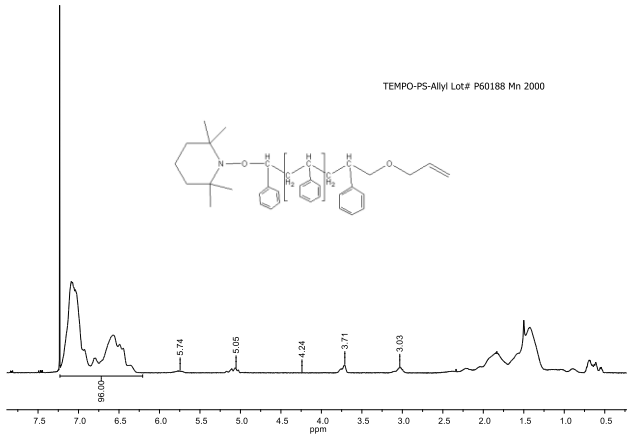
Characterization:

The product was characterized by size exclusion Chromatography (SEC) and ^{1}H NMR in CdCL3 and in chlorobenzene.

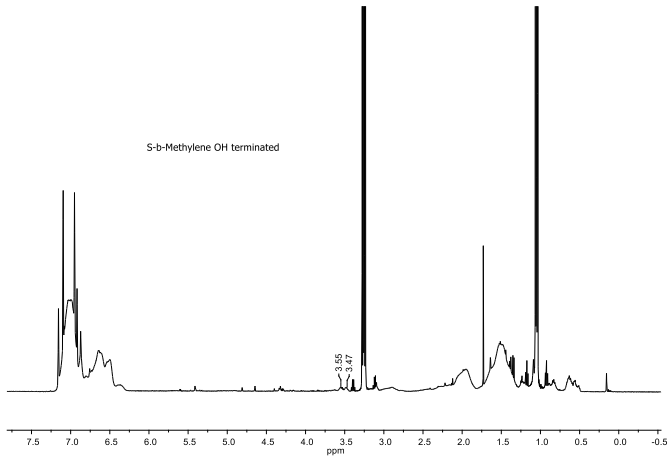
Solubility:

Polymer is soluble in warm toluene and in dichlorobenzene.

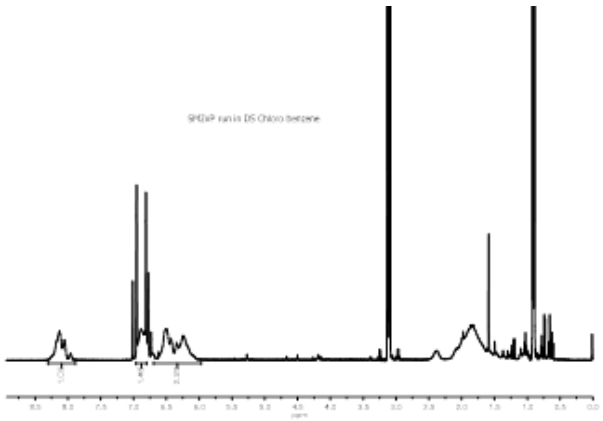
^{1}H-NMR of the Ally terminated Poly Styrene:



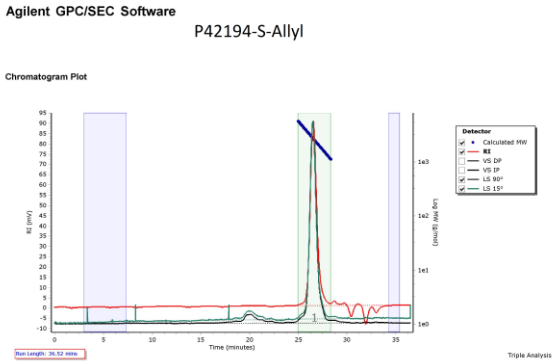
^{1}H-NMR Spectrum of the SM block copolymer:



^{1}H-NMR Spectrum of the Sample:



SEC elugram of the Ally terminated Poly Styrene:

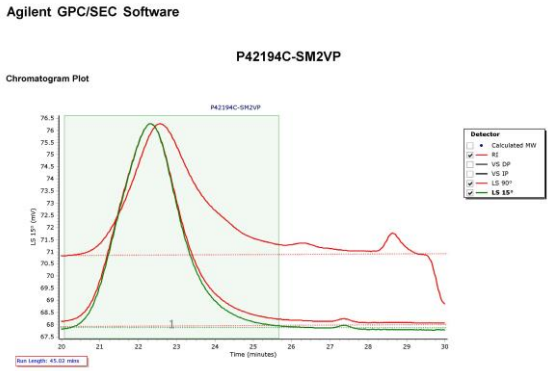


Molecular Weight Averages

Peak	Mp (g/mol)	Mn (g/mol)	Mw (g/mol)	Mz (g/mol)	Mz+1 (g/mol)	Mv (g/mol)	PD
Peak 1	2673	2537	2635	2731	2828	2709	1.039

GPC of the diblock copolymer carried out in Toluene the elution volume was higher than its polystyrene allyl precursor. The Mw/MN is increased from 1.03 to 1.08 HNMR calculate the composition which is comparable to its yield of the polymer.

SEC elugram of the Sample:



Molecular Weight Averages

Peak	Mp (g/mol)	Mn (g/mol)	Mw (g/mol)	Mz (g/mol)	Mz+1 (g/mol)	Mv (g/mol)	PD
Peak 1	34285	23669	33397	43285	53205	39830	1.411