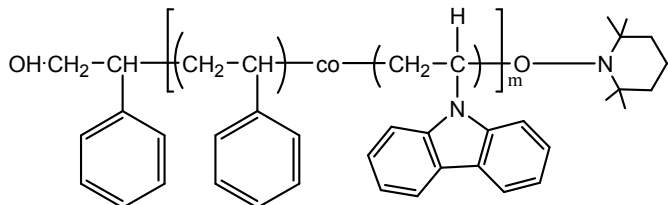


Sample Name:

Random Copolymer Poly(styrene-co-9 Vinyl carbazole), α -Hydroxyl- ω -Tempo moiety Terminated

Sample #: **P13212-SVKranOHT**

Structure:



Composition:

Mn x 10 ³ (Styrene content mol%)	Mw/Mn (PDI)
35.0 (96.0%)	1.6

Synthesis Procedure:

Hydroxy terminated poly(styrene-co-9-vinylcarbazole) is prepared by stable free radical polymerization at 135°C.

Characterization:

An aliquot of the copolymer was analyzed by size exclusion chromatography (SEC) to obtain the molecular weight and polydispersity index (PDI), the instrument calibrated by Polystyrene standards. The chemical composition was calculated from ¹H-NMR spectroscopy by comparing the peak area of the Vinyl carbazole adjacent to Nitrogen at around 8ppm (4 protons) and subtracting these protons from styrene counter parts at 6.8-7.4 ppm.

Solubility:

Polymer is soluble in THF, DMF, Toluene and chloroform. Precipitate from methanol and Hexanes.

¹H NMR spectrum

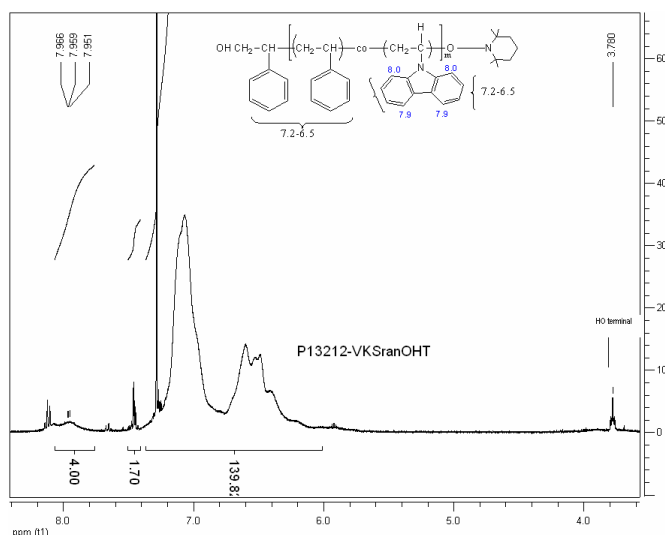
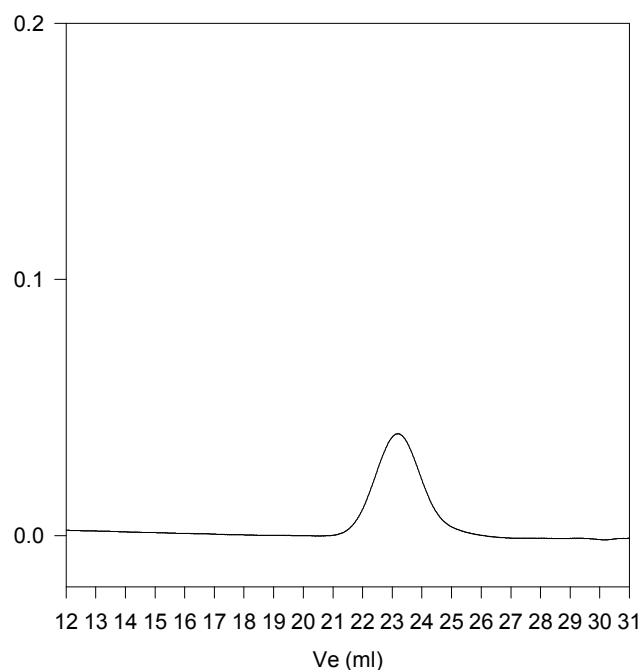


Figure: SEC profile of the random copolymer
P13212-SVKranOHT



— $M_n=35,000$, $M_w=56,000$, $PI=1.6$
PS%mol= 96.0 (calculated from NMR)