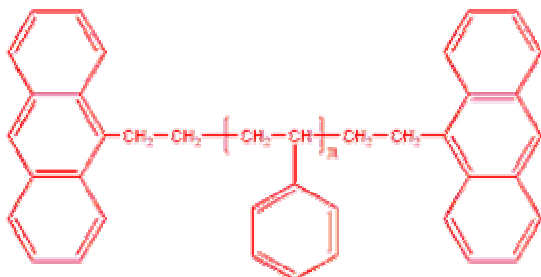


Sample Name:

α,ω -Anthracene terminated Polystyrene

Sample #: **P184-AnSA**

Structure:



Mn x 10 ³	PDI
544.0	1.45

Synthesis Procedure:

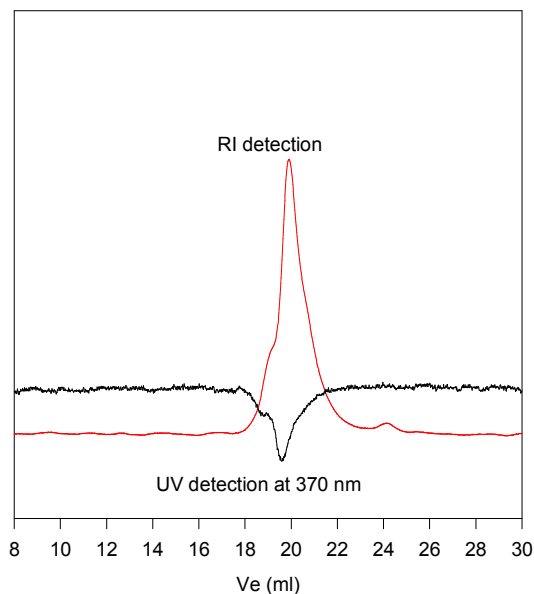
Polymer bearing anthracene moiety at the terminal ends was prepared by anionic living polymerization of styrene using a bifunctional initiator and terminating the polymerization by either 9 vinyl anthracene or 9-anthracene aldehyde.

Characterization:

Molecular Weight: Size exclusion chromatography (SEC): Varian liquid chromatograph equipped with UV and refractive detector. SEC columns from Supelco were used with THF as the eluent. The columns were calibrated with monodisperse poly(methyl methacrylate). The molecular weights and the polydispersity indices for polymer precursor were calculated. The UV spectroscopy was carried out on a hp spectrometer in CHCl₃. The functionality was calculated from the absorbance at 370 nm, the extinction coefficient 6800 obtained from pure anthracene, the polymer concentration and the number average molecular weight from SEC.

SEC of Sample:

P184-AnSA



Size Exclusion Chromatography of anthracene terminated Polystyrene

$M_n=544,000$, $M_w=791,000$, $PI=1.45$, functionality >1.8 (by UV)