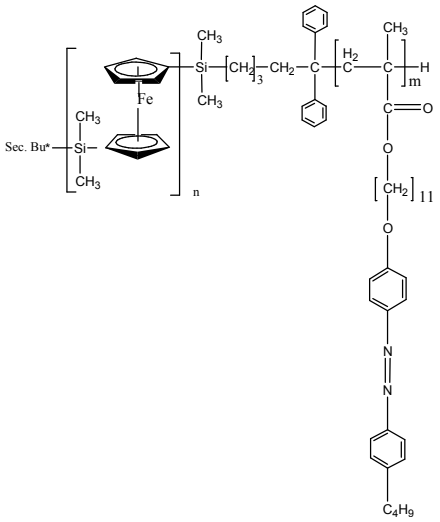
Sample Name:
Poly(ferrocenyldimethylsilane-b-11-(4-4(4-butylphenylazo)phenoxy)-undecyl methacrylate)

Sample #: P9425D-FESAzoMA
Structure:



Composition:

Mn × 10^3 FES-b-AZoMA	Mw/Mn (PDI)
7.0-b-63.0	2.2

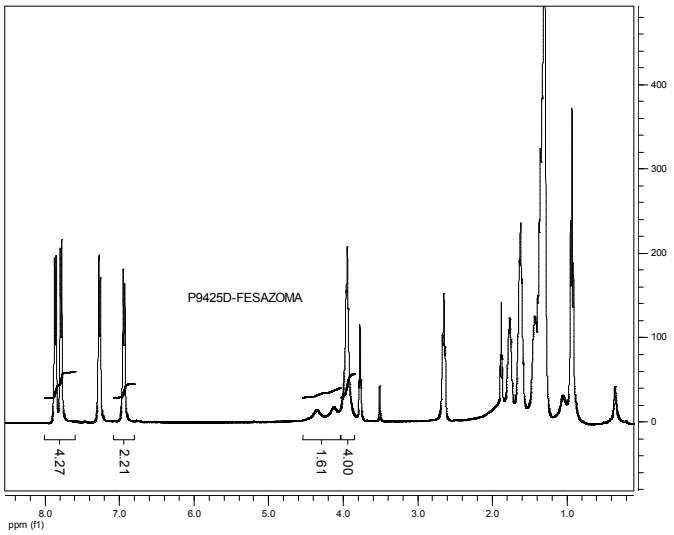
Synthesis Procedure:

This particular lot is synthesized by Controlled radical process using OH terminated FES prepolymer.

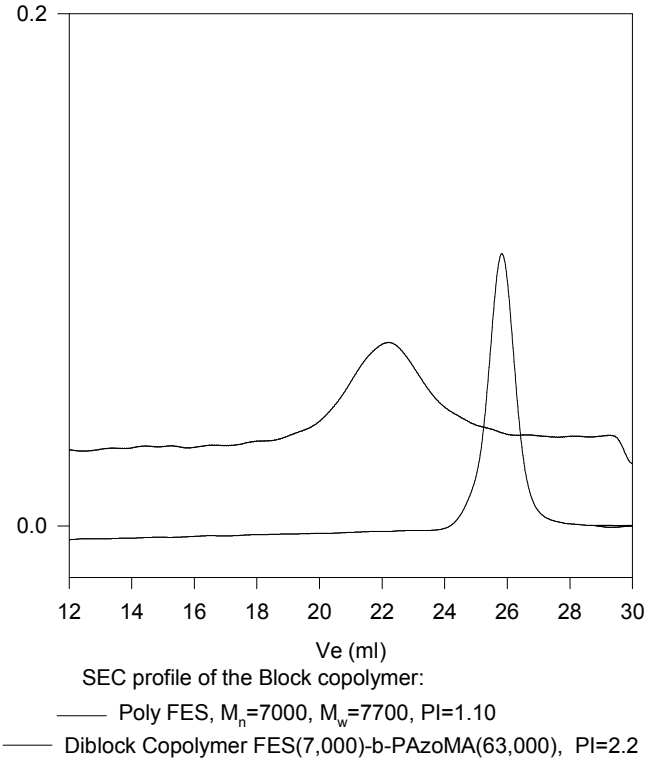
Characterization:
Polymer is analyzed by size exclusion chromatography (SEC) to obtain the molecular weight and polydispersity index (PDI). The final block copolymer composition was calculated from ^{1}H-NMR spectroscopy by comparing the peak area of the phenyl protons at 6.3-7.2 ppm with the peak area of Si(CH3) at 0.2ppm or Ferrocene protons at 4.0 and 4.2ppm.

Solubility:
Polymer is soluble in THF, $CHCl_3$, toluene and precipitate out from ether and hexanes.

^{1}H NMR spectrum of the sample



SEC profile of the block copolymer
P9425D-FESAzoMA



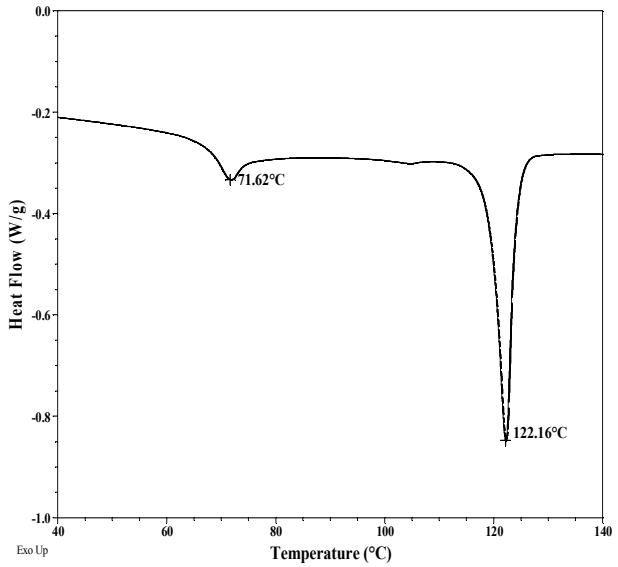
Thermal analysis of the sample# P9425D-FESAzoMA

Thermal analysis of the samples was carried out on a TA Q100 differential scanning calorimeter at a heating rate of 10°C/min.The midpoint of the slope change of the heat flow plot of the second heating scan was considered as the glass transition temperature (T_g).

Melting and crystallization curve for the sample

The melting temperature (T_m) was taken as the maximum of the endothermic peak where as the crystallization temperature (T_c) was considered as the minimum of the exothermic peak.

Melting curves for AzoMA block in FESAzoMA



Thermal analysis results at a glance

Sample	T_m (°C)	T_c (°C)	T_g (°C)
FES (4.5k homo)			26.3
FES in FESAzoMA			-
AzoMA (6.5k homo)	53/93	48/92	-
AzoMA in FESAzoMA	72/122	67/116	-

Crystallization curve for AzoMA block in the diblock