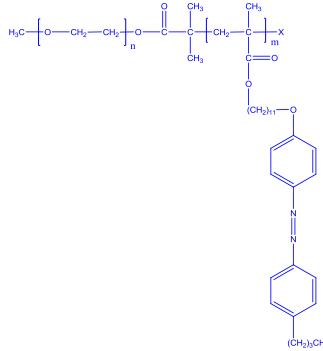


Sample Name: Poly(ethylene oxide-*b*-AZoMA)
(AZoMA=11-[4-(4-butylphenylazo)phenoxy]-undecyl methacrylate)

Sample #: P16241A-EOAzoMA

Structure:



Composition:

Mn x 10 ³ PEO-b-PAzoMA	PDI
12.0-b-7.5	2.2
Melting point, T _{m1} (PEO):	61 °C
Melting point, T _{m2} (PAzoMA):	115 °C

Synthesis Procedure:

Poly(ethylene oxide-*b*-AZoMA) is prepared by ATRP process.

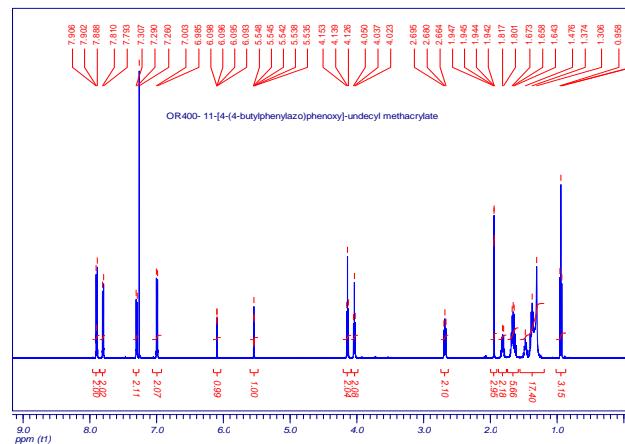
Characterization:

The product was characterized by size exclusion chromatography (SEC) and ^1H NMR. The compositions and molecular weight were determined by HNMR analysis. The SEC was used to determine its distribution and absence of PEG starting polymer.

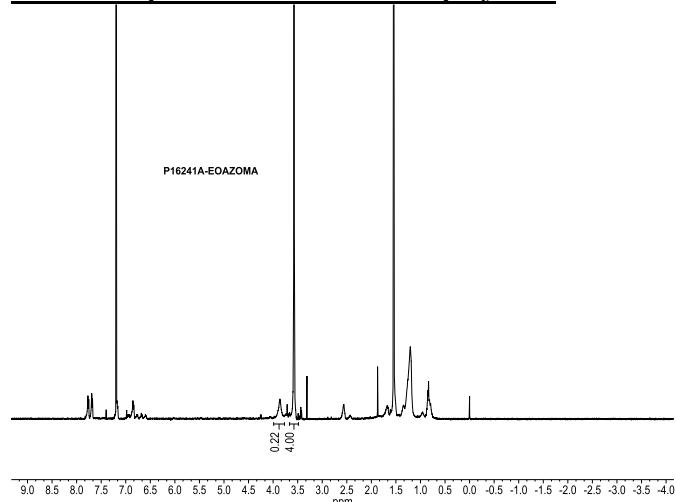
Thermal analysis:

Thermal analysis was performed on TA Instruments Q100 differential scanning calorimeter (DSC) under a nitrogen atmosphere. The glass transition temperature (T_g), melting point (T_m) and crystallization temperature (T_c) of the copolymer were measured at a scan rate of $10^{\circ}\text{C}/\text{min}$ shortly after creating thermal history of the sample.

¹H-NMR Spectrum of the LC monomer:

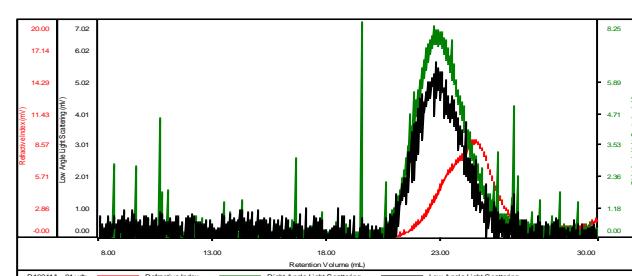


¹H-NMR Spectrum of the block copolymer:



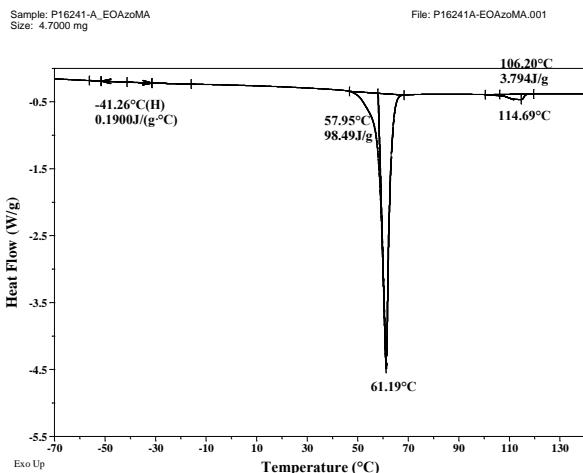
SEC of the block copolymer:

Concentration (mg/mL)	0.8496
Sample dn/dc (mL/g)	0.1850
Method File	PS80K-august2017-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF



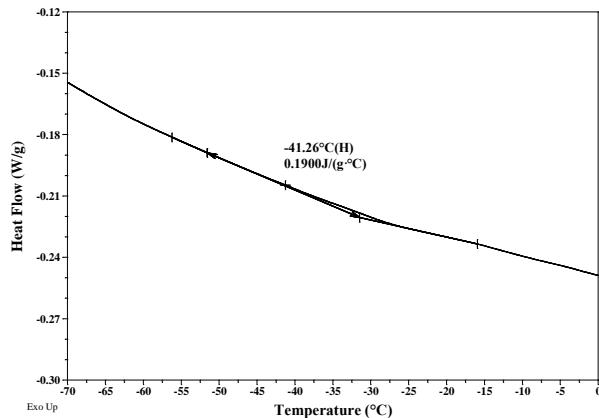
Sample	Mn (Da)	Mw (Da)	Mw/Mn	IV (dL/g)	Mp (Da)
P16241A-01.vdt	28,681	63,396	2.210	0.3106	23,388

**DSC thermogram of the polymer (2nd heating scan,
10°C/min):**



Sample: P16241-A_EOAzoMA
Size: 4.7000 mg

File: P16241A-EOAzoMA.001



**DSC thermogram (cooling and heating scans,
10°C/min):**

Sample: P16241-A_EOAzoMA
Size: 4.7000 mg

File: P16241A-EOAzoMA.001

