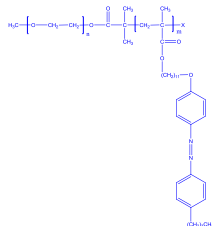


**Sample Name: Poly(ethylene oxide-b-AZoMA)**  
(AZoMA=11-[4-(4-butylphenylazo)phenoxy]-undecyl methacrylate)

**Sample #: P16243-EOAZOMA**

**Structure:**

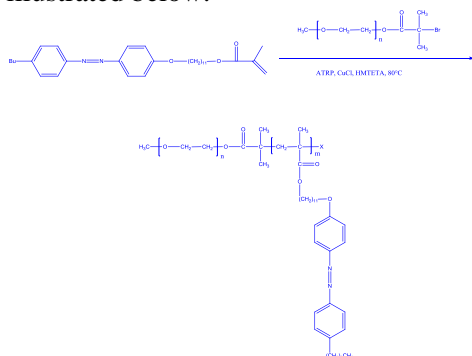


**Composition:**

Mn x 10 <sup>3</sup> PEO-b-PAzoMA	PDI
12.0-b- 11.0	1.9
Melting point, T <sub>m1</sub> (PEO):	59 °C
Melting point, T <sub>m2</sub> (PAzoMA):	116 °C

**Synthesis Procedure:**

Poly (ethylene oxide-b-AZoMA) is prepared by ATRP using bromo-terminated poly (ethylene glycol) as the macro-initiator. The scheme of the reaction is illustrated below:



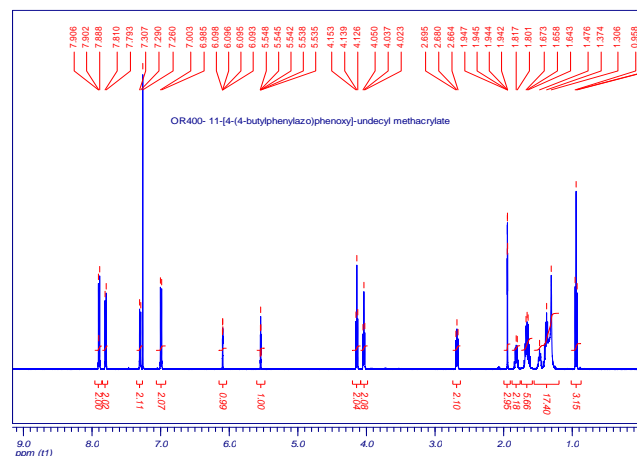
**Characterization:**

The product was characterized by size exclusion chromatography (SEC) and <sup>1</sup>H 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.

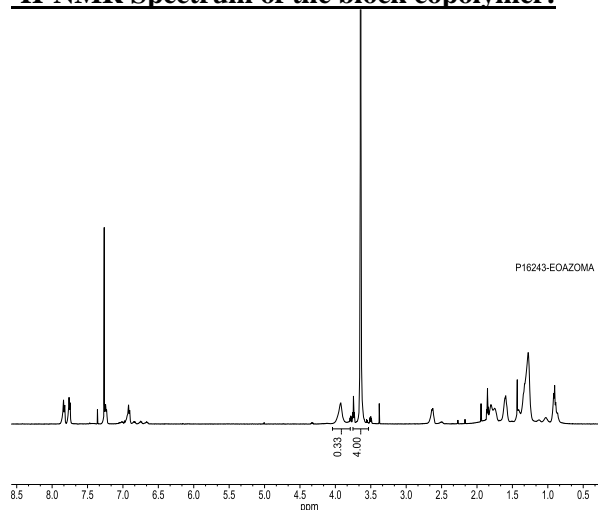
**Thermal analysis:**

Thermal analysis was performed on TA Instruments Q100 differential scanning calorimeter (DSC) under a nitrogen atmosphere. The glass transition temperature (T<sub>g</sub>), melting point (T<sub>m</sub>) and crystallization temperature (T<sub>cr</sub>) of the copolymer were measured at a scan rate of 10°C/min shortly after creating thermal history of the sample.

**<sup>1</sup>H-NMR Spectrum of the LC monomer:**



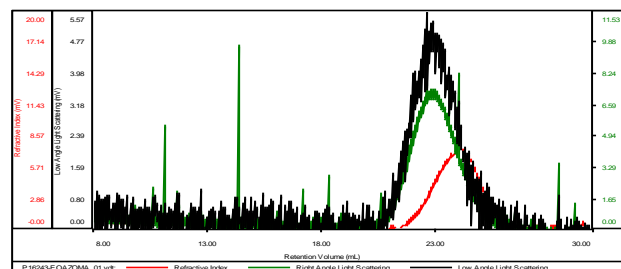
**<sup>1</sup>H-NMR Spectrum of the block copolymer:**



**SEC of the block copolymer:**

**P16243-EOAZOMA**

Concentration (mg/mL)	0.6079
Sample dn/dc (mL/g)	0.1850
Method File	PS80K-august2017-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF

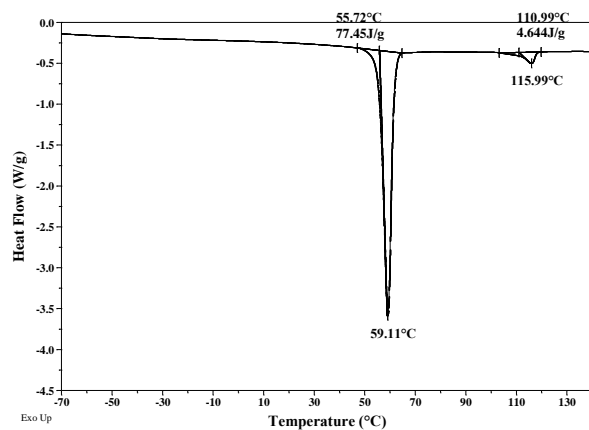


Sample	Mn (Da)	Mw (Da)	Mw/Mn	IV (dL/g)	Mp (Da)
P16243-EOAZOMA_01.vdt	39,438	74,332	1.885	0.1769	36,702

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

Sample: P16243\_EOAzoMA  
Size: 3.8000 mg

File: P16243-EOAzoMA.001



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

Sample: P16243\_EOAzoMA  
Size: 3.8000 mg

File: P16243-EOAzoMA.001

