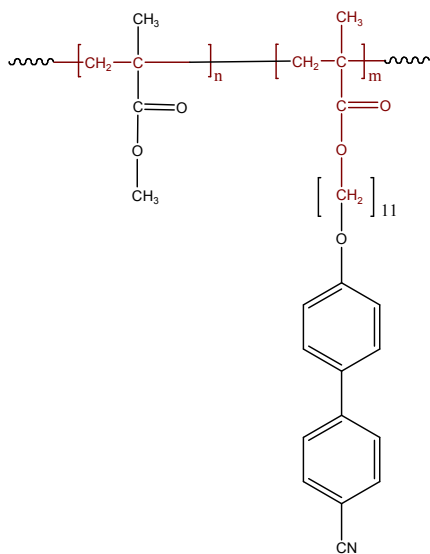
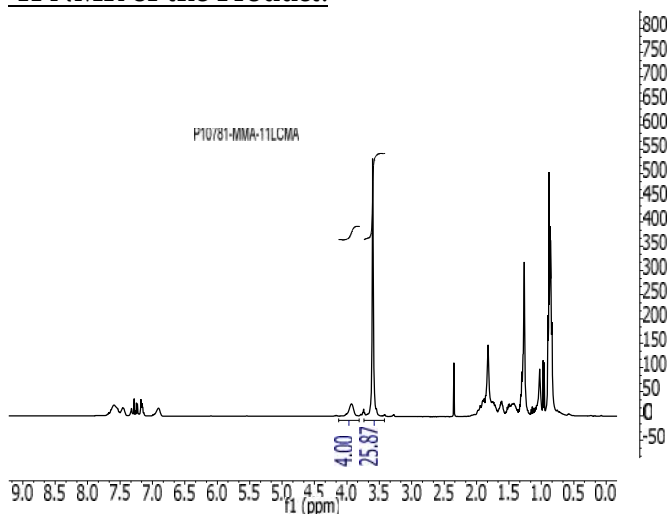


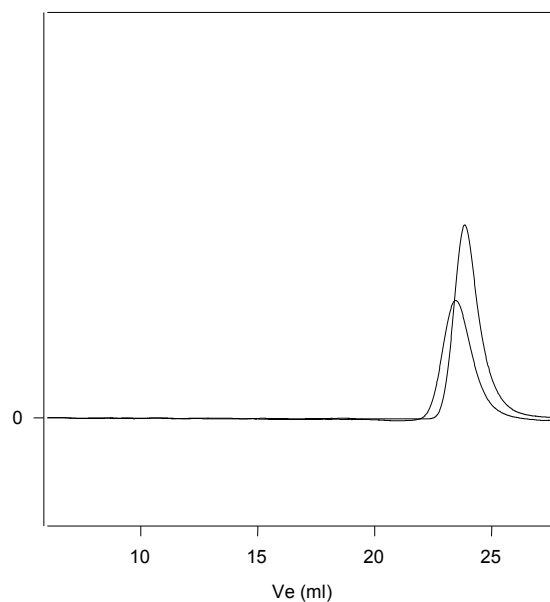
Sample Name:

Poly(Methylmethacrylate-b-11-(4'-cyanobiphenyl-4-yloxy) undecyl methacrylate

Sample #: *P10781-MMA-4CNBP-11CMA*

Structure:**¹H NMR of the Product:****SEC of the block copolymer:**

P10781-MMA-4CNBP11CMA



Size exclusion chromatography of the product:

—— Br-end terminated Poly(Methylmethacrylate), $M_n=11,000$, $PI=1.09$
 —— Block Copolymer MMA(11,000)-b-4-CNBP11CMA (5500), $PI=1.25$

Composition:

$M_n \times 10^3$ PMMA-b- 4CNBP11CMA	PDI
11.0-b-5.5	1.25
Microstructure of 4CNBP11CMA	Syndio:hetero:iso 53:32:15

Synthesis Procedure:

Polymer is synthesized by controlled radical polymerization process.

Purification of the polymer:

The un-reacted PEG can be removed by stirring the polymer in hot water/Methanol. The obtained polymer dissolved in $CHCl_3$ /toluene and pass through the column packed with silica. The polymer was recovered by precipitation in cold ether/hexane mixture.

Solubility:

Polymer is soluble in $CHCl_3$, THF and toluene. The polymer precipitated out from hexane.