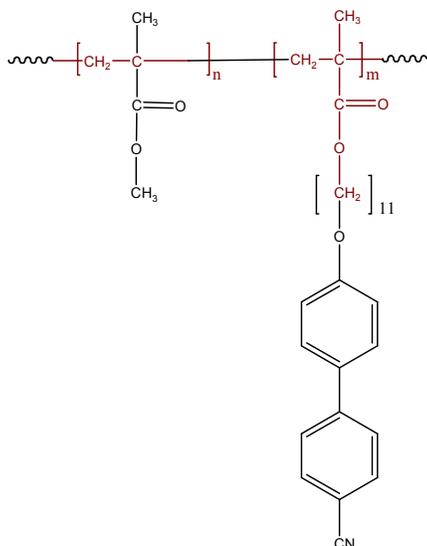


Sample Name:

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

Sample #: *P10832-MMA-4CNBP-11CMA*

Structure:**Composition:**

| | |
|---|-------------------------------|
| Mn x 10 ³ PMMA-b- 4CNBP11CMA | PDI |
| 11.0-b-22.0 | 1.3 |
| Microstructure of 4CNBP11CMA | Syndio:hetero:iso 53:32:15 |

Synthesis Procedure:

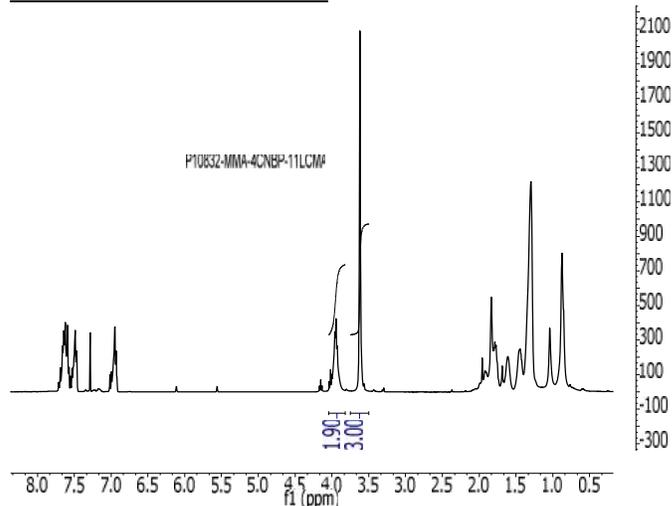
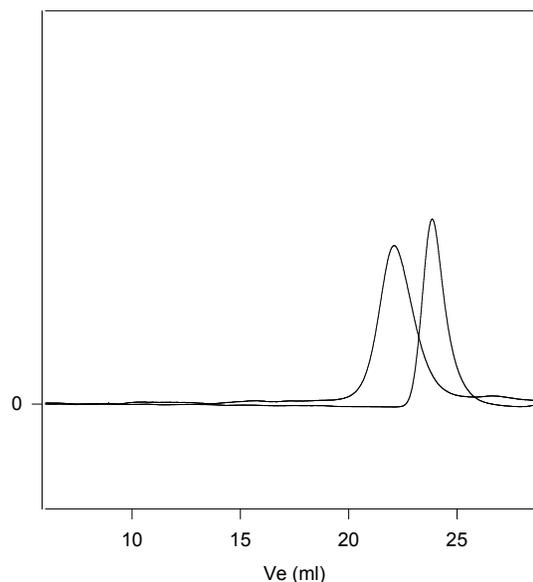
Polymer is synthesized by controlled radical polymerization process.

Purification of the polymer:

The un-reacted PEG can be removed by stirring the polymer in hot water/Methanol. The obtained polymer dissolved in CHCl₃/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 CHCl₃, THF and toluene. The polymer precipitated out from hexane.

¹H NMR of the Product:**SEC of the block copolymer:****P10832-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 (22,000), PI=1.30