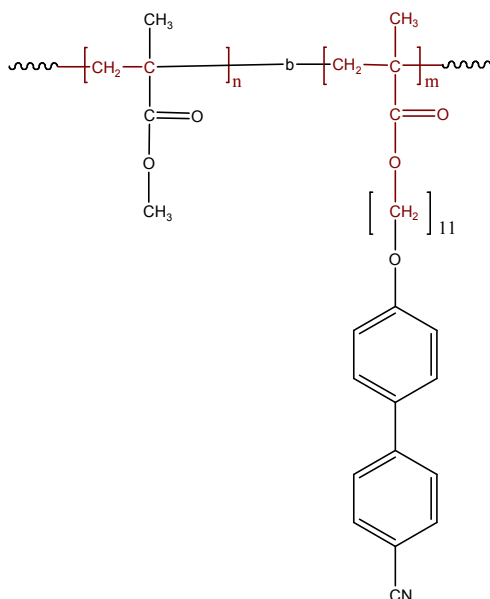


Sample Name:

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

Sample #: *P10819A-MMA-4CNBP-11CMA*

Structure:**Composition:**

Mn x 10 ³ PMMA-b- 4CNBP11CMA	PDI
11.0-b-8.0	1.17
Microstructure of 4CNBP11CMA	Syndio:hetero:iso 53:32:15
mp (°C)	121

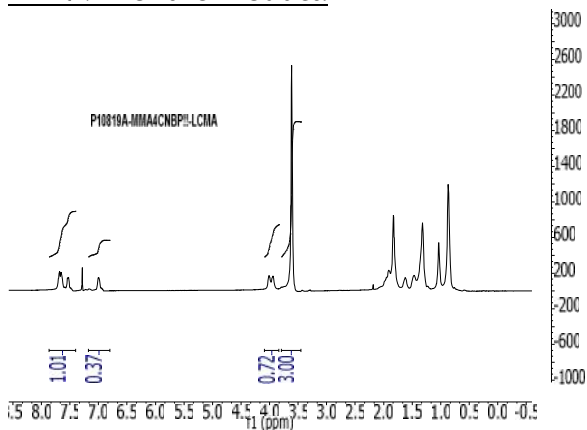
Synthesis Procedure: Anionic and controlled radical process

Purification of the polymer:

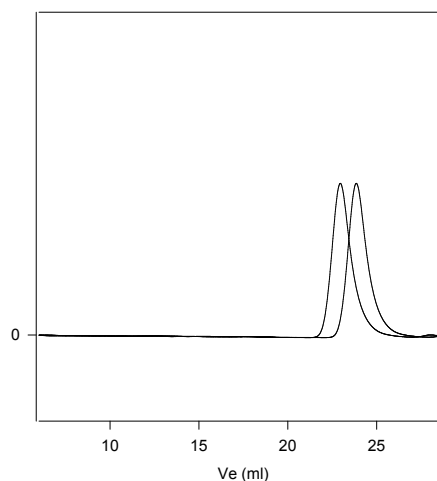
The un-reacted 11-LCMA monomer was removed by stirring the polymer in hot Methanol. The obtained polymer dissolved in CHCl₃/toluene and pass through the column packed with silica. The polymer was recovered by precipitation in cold ether/hexane mixture.

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:**

P10819A-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 (8,000), PI=1.17

DSC of the block copolymer