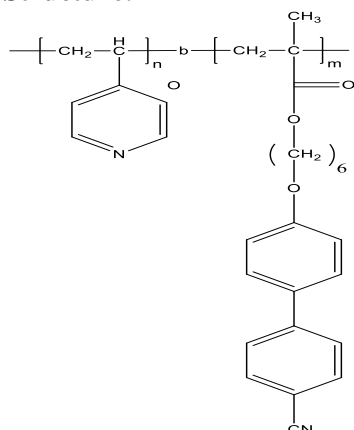


Sample Name: Poly(4-vinylpyridine-b-6-(4'-cyanobiphenyl-4-yloxy)hexyl methacrylate

Sample #: P11263-4VP4CNBPHMA

Structure:



Composition:

Mn x 10 ³ P4VP-b-4CNBPHMA	PDI
17.5-b-11.0	1.10

Synthesis Procedure:

Polymer is synthesized by anionic polymerization process of 4-vinylpyridine with 6-(4'-cyanobiphenyl-4-yloxy) hexylmethacrylate) in THF.

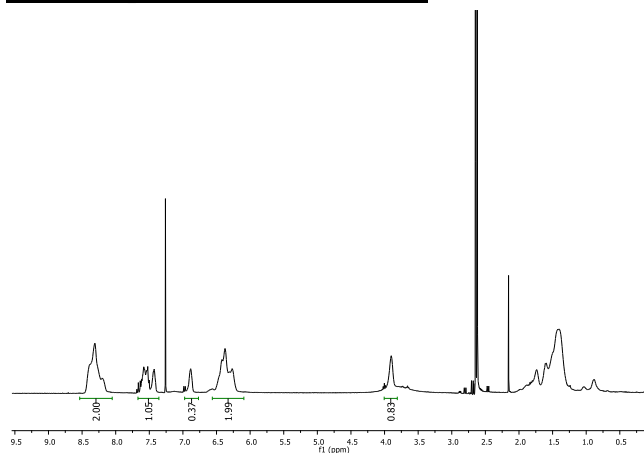
Characterization:

Polymer was analyzed by size exclusion chromatography (SEC) using DMF as eluent to obtain the molecular weight and polydispersity index (PDI). The final block copolymer composition was calculated from ¹H NMR spectroscopy by comparing the peak area of the 4VP aromatic protons at 8.0-8.5 ppm with the 4CNBPHMA aromatic protons at 6.8-7.7 ppm.

Solubility:

Polymer is soluble in CHCl₃, THF and toluene. The polymer precipitated out from hexane.

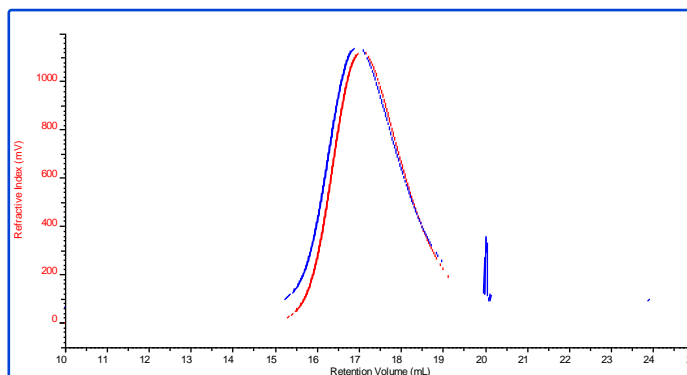
¹H NMR spectrum of the Product:



SEC elugram of the diblock copolymer:

P11263-4VP4CNBPHMA

dn/dc	0.1650
Flow	0.7000
Solvent	DMF with LiBr
Method	PSS



Sample	Mn	Mw	Mz	IV	Mw/Mn
P11263_1_20	28,403	31,284	38,135	0.1585	1.101