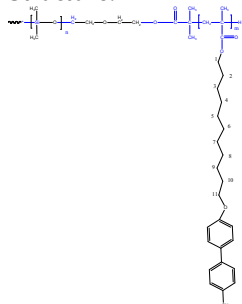


Sample Name: Poly(dimethylsiloxane-b-11-(4'-cyanobiphenyl-4-yloxy)undecylmethacrylate)

Sample #: P9916-DMS4CNBP11CMA

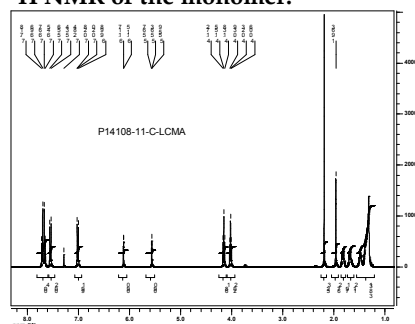
Structure:



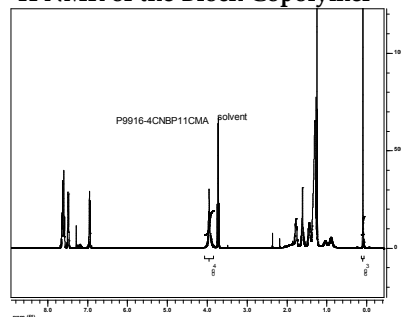
Composition:

Mn x 10 ³ DMS-b-4CNBP11CMA	Mw/Mn (PDI)
5.0-b-58.0	1.2

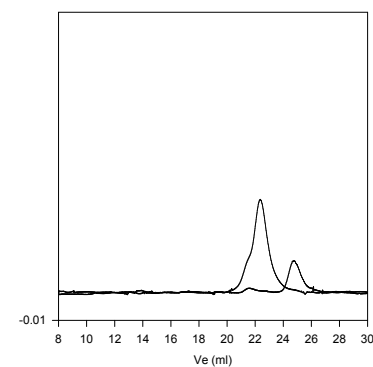
¹H NMR of the monomer:



¹H NMR of the Block Copolymer



P9916-DMS4CNBP11CMA



Size exclusion chromatography of the product:

- Polydimethylsiloxane, $M_n=5000$, $M_w=5400$, $PI=1.05$
- Block Copolymer PDMS(5000)-b-4CNBP11CMA(58,000), $PI=1.2$

Thermal analysis of P9916-DMS4CNBP11CMA

Thermal analysis of the samples was carried out on a TA Q100 differential scanning calorimeter at a heating rate of 10°C/min. The midpoint of the slope change of the heat flow plot of the second heating scan was considered as the glass transition temperature (T_g).

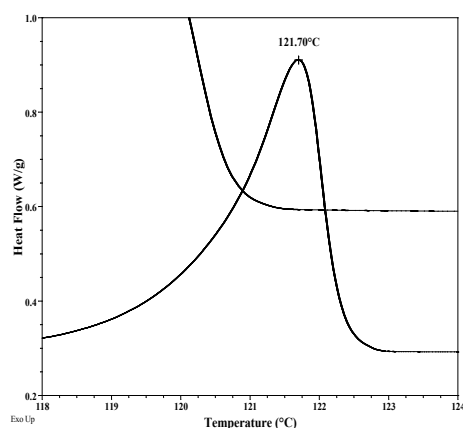
Melting and crystallization curve for the sample

The melting temperature (T_m) was taken as the maximum of the endothermic peak whereas the crystallization temperature (T_c) was considered as the minimum of the exothermic peak.

Thermal analysis results at a glance

Sample	T_m (°C)	T_c (°C)	T_g (°C)
DMS block	Not distinct	Not distinct	-127 (Lit)
4CNBP11CMA block	127	122	-

Crystallization curve for 4CNBP11CMA block:



Melting curve for 4CNBP11CMA block:

