

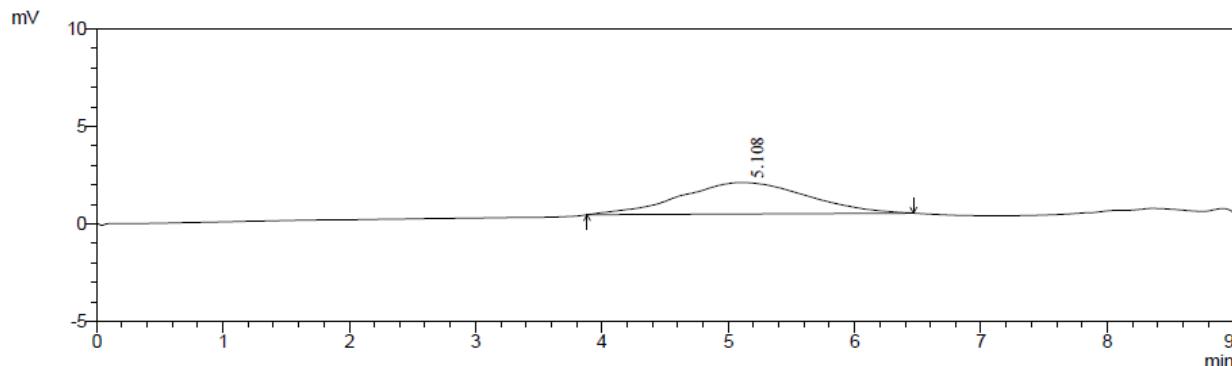
Supporting Information

A tunable light scattering device fabricated using pseudopeptide polymer incorporated chiral nematic liquid crystal

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GPC Calculation Results

GPC Results

Peak#:1 (Detector A Channel 1)

[Peak Information]

Title	Time(min)	Molecular Weight
Start	3.883	11809939
Top	5.108	242993
End	6.467	17602

[Average Molecular Weight]

Number Average Molecular Weight(Mn)	149785
Weight Average Molecular Weight(Mw)	536911
Z Average Molecular Weight(Mz)	2236306
Z+1 Average Molecular Weight(Mz1)	4837349
Viscosity Average Molecular Weight(Mv)	0
Mw/Mn	3.58455
Mv/Mn	0.00000
Mz/Mw	4.16514
Intrinsic Viscosity	1.00000
%	100.0000

Detector A Channel 1

[Average Molecular Weight(Total)]

Number Average Molecular Weight(Mn)	149785
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%	100.0000

GPC Calibration Curve

Method File

: March 2024 - RID.Agile_400k_new_26k

Curve Fit Type

: 3rd Order

Function

: f(x)= -0.04942256*X^3 + 0.9722612*X^2

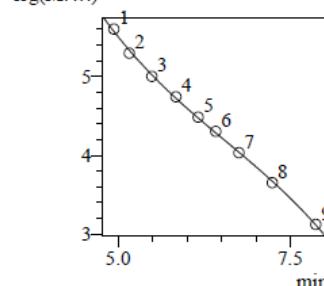
- 7.103946*X + 22.89154 (X=x-T LIMIT)

T LIMIT=0 min

R^2=0.9992204

Dispersion=0.02090243

log(M.W.)



#	Time(min)
1	4.936
2	5.160
3	5.488
4	5.837
5	6.161
6	6.418
7	6.755
8	7.237
9	7.872

Figure S1. GPC analysis of the polymer

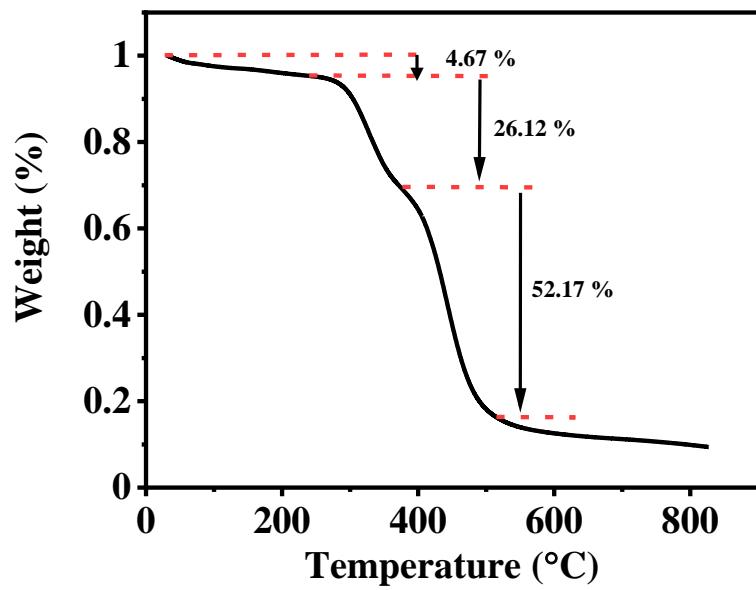


Figure S2. Thermogravimetric analysis (TGA) of NBFoMe Polymer

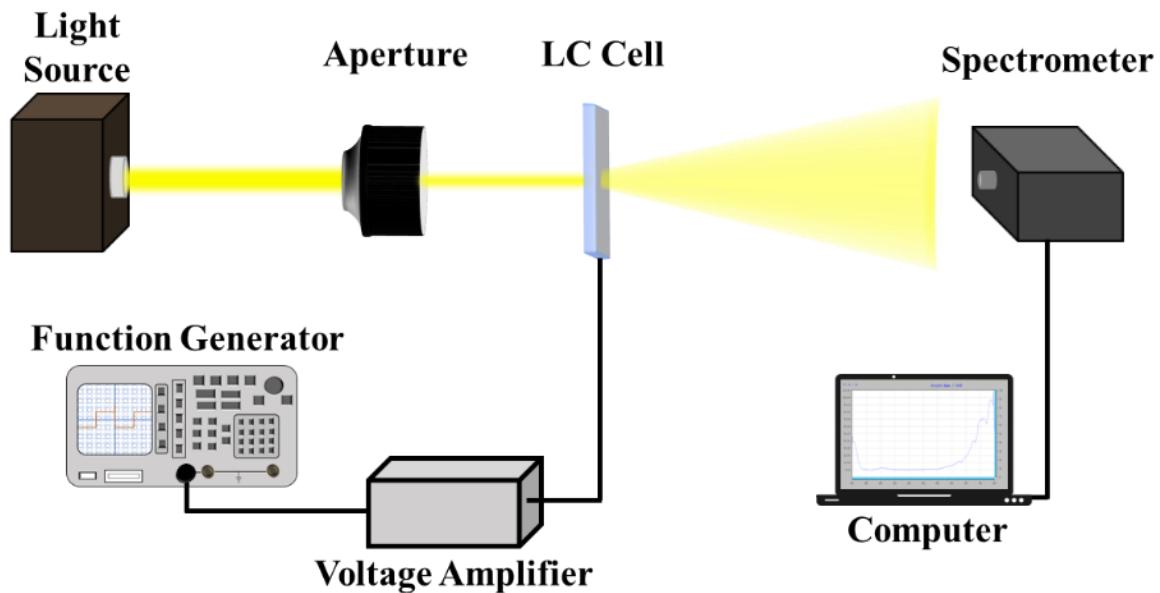


Figure S3. Schematic diagram of the set-up to measure the wavelength-dependent direct transmittance measurement.

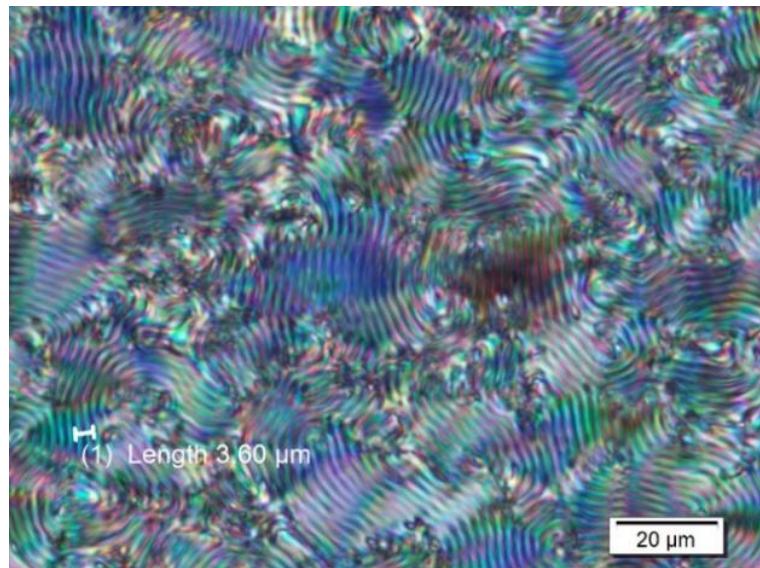


Figure S4. Optical texture of the 96:04 wt. % E7:CB15 LC in unaligned LC cell.

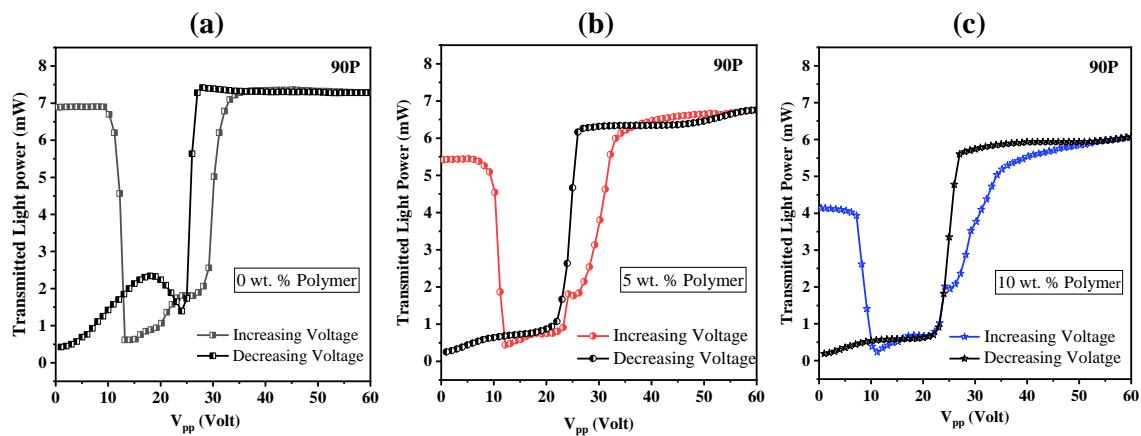


Figure S5. The direct transmission of the He-Ne laser beam passes through the LC cell for 90P polarization state with increasing and decreasing voltage.

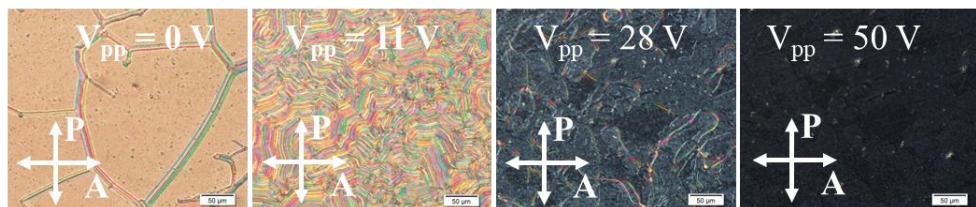


Figure S6. Optical texture of the 10 wt. % polymer LC cell after 8 months of the fabrication

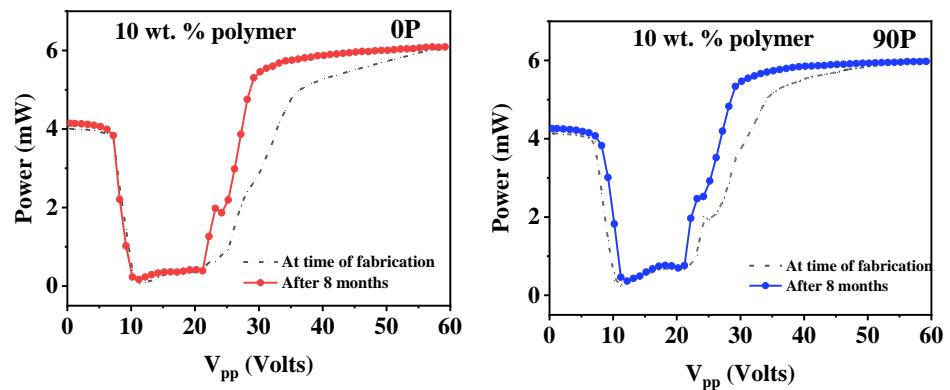


Figure S7. Voltage-dependent direct light transmission of the 10 wt. % polymer LC cell at the time of the fabrication and after 8 months of the fabrication. The frequency of the square wave is 1kHz.