Supporting Information

Optically Transparent Fluor-containing Polycarbonate with High Refractive Index for Thermo-optic Switch

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Figure S1. The GPC calculation results of FBPA-PC-EP-1.

GPC Calculation Results

Detector A Ch1
[Average Molecular Weight(Total)] 10530
Number Average Molecular Weight(Mn) 13826
Weight Average Molecular Weight(Mw) 18649
Z Average Molecular Weight(Mz) 25121
Mw/Mn 1.31303
Mv/Mn 0.00000
Mz/Mw 1.34883

Figure S2. The GPC calculation results of FBPA-PC-EP-2.

GPC Calculation Results

Detector A Ch1
[Average Molecular Weight(Total)] 10895
Number Average Molecular Weight(Mn) 14499
Weight Average Molecular Weight(Mw) 19933
Z Average Molecular Weight(Mz) 27034
Mw/Mn 1.33098
Mv/Mn 0.00000
Mz/Mw 1.37476

Figure S3. The GPC calculation results of FBPA-PC-EP-3.

GPC Calculation Results

Detector A Ch1
[Average Molecular Weight(Total)] 11223
Number Average Molecular Weight(Mn) 15485
Weight Average Molecular Weight(Mw) 21629
Z Average Molecular Weight(Mz) 28934
Mw/Mn 1.37978
Mv/Mn 0.00000
Mz/Mw 1.39675
Figure S4. $^1$H NMR spectra of FBPA-PC-OH and FBPA-PC-EP (from top to bottom).

Figure S5. $^{19}$F NMR spectra of FBPA-PC-OH and FBPA-PC-EP (from bottom to top).
Figure S6. $^{13}$C NMR spectra of FBPA-PC-EP 2.

Figure S7. FTIR spectrum of FBPA-PC-OH and FBPA-PC-EP.
Figure S8. TGA thermograms of FPC-PRs 1-3 before and after cross-linking.

Figure S9. DSC thermograms of FPC-PR 1-3 before and after cross-linking.