Electronic Supplementary Information

The effects of asymmetric bent-shaped compounds on the temperature range and electro-optical performances of liquid crystalline blue phases

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Figure S1 is the \textsuperscript{1}H NMR of CN-OXD-C5H.

Figure S1. The spectrum of \textsuperscript{1}H NMR of CN-OXD-C5H
Figure S2 is the Mass Spectrometry of CN-OXD-C5H.

Figure S2. The Mass Spectrometry of CN-OXD-C5H
Figure S3 is the $^1$H NMR of C5H-OXD-C5H.

Figure S3. The spectrum of $^1$H NMR of C5H-OXD-C5H

Figure S4 is the Mass Spectrometry of C5H-OXD-C5H.

Figure S4. The Mass Spectrometry of C5H-OXD-C5H
Figure S5 is the $^1$H NMR of CN-OXD-C6H.

Figure S5. The spectrum of $^1$H NMR of CN-OXD-C6H
Figure S6 is the Mass Spectrometry of CN-OXD-C6H.

Figure S6. The Mass Spectrometry of CN-OXD-C6H

Figure S7 is the $^1$H NMR of C6H-OXD-C6H.

Figure S7 is the $^1$H NMR of C6H-OXD-C6H

Figure S7. The spectrum of $^1$H NMR of C6H-OXD-C6H
Figure S8 is the Mass Spectrometry of C6H-OXD-C5H.

Figure S8. The Mass Spectrometry of C6H-OXD-C6H
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Figure S9. The spectrum of $^1$H NMR of CN-OXD-C6HF

Figure S10 is the Mass Spectrometry of CN-OXD-C6HF.

Figure S10. The Mass Spectrometry of CN-OXD-C6HF
Figure S11 is the $^1$H NMR of C6HF-OXD-C6HF.

Figure S11. The spectrum of $^1$H NMR of C6HF-OXD-C6HF

Figure S12 is the Mass Spectrometry of C6HF-OXD-C6HF.

Figure S12. The Mass Spectrometry of C6HF-OXD-C6HF
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Figure S14 is the Mass Spectrometry of CN-0XD-C6H.
Figure S14. The Mass Spectrometry of CN-Th-C6H

Figure S15 is the $^1$H NMR of C6H-Th-C6H.

![Figure S15](image)

Figure S2 is the Mass Spectrometry of C6H-Th-C6H.

Figure S16. The Mass Spectrometry of C6H-Th-C6H
Figure S17 is the normalized voltage-transmittance curve of BPI in the N*LC doped with different bent-shaped compounds, and all the concentration is 15%.

Figure S17. Normalized voltage-transmittance curve of BPI in the N*LC doped with different bent-shaped compounds and all the concentration is 15%.