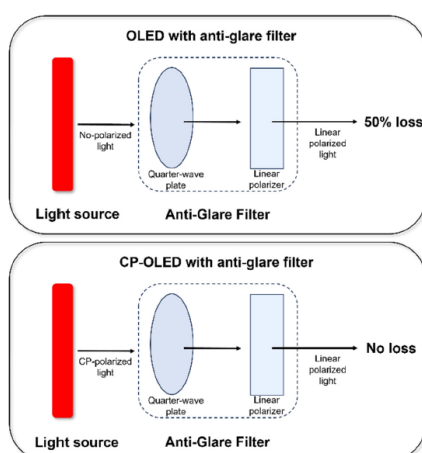


OLED New Materials

Circularly Polarized Organic Light-Emitting Diodes

Circularly polarized luminescent (CPL) molecules, capable of emitting specific left- or right-handed circularly polarized light, theoretically enable 100% light energy utilization in circularly polarized OLED devices (CP-OLEDs). With this breakthrough, CPL mechanisms exhibit significant potential for applications in data storage, bioimaging, and 3D displays.



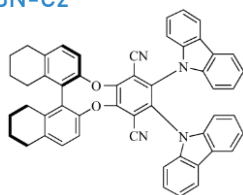
- CPL & TADF
- One-pot synthesis (83% yield)
- High quantum yield (up to 74%)
- High racemization barrier

DOI:10.1021/jacs.6b00850

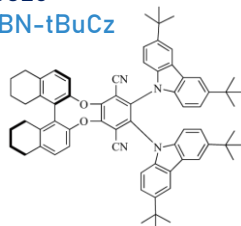
Figure 2. Schematic diagram of an OLED and CP-OLED with anti-glare filters.

DOI:10.3390/nano15131053

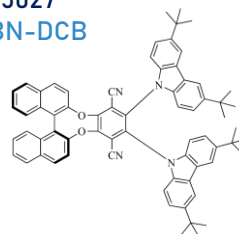
LT-N5024
(R)-OBN-Cz



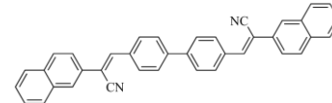
LT-N5025
(R)-OBN-tBuCz



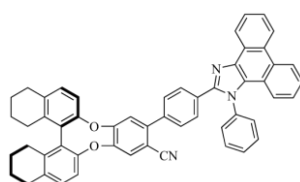
LT-N5027
(S)-BN-DCB



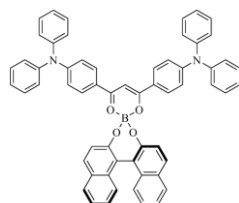
LT-N6116
BPDBNA



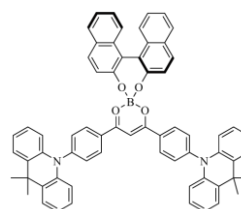
(R)-PPI-OBNCN



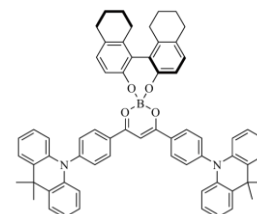
(S)-BDTPA



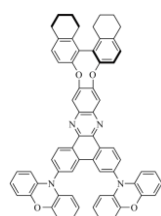
(R)-DOBP



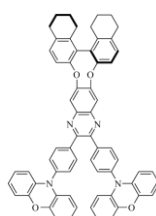
(R)-HDOBP



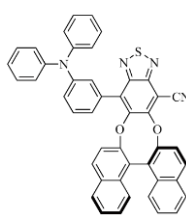
(R)-ODPPXZ



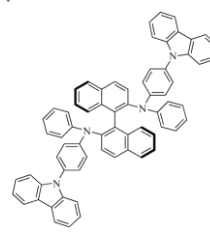
(R)-ODQPXZ



(S)-M-TBBTCN



(R)-CzTPA



(R)-p-BAMCN

