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List of Acronyms

Alq_3 tris(8-hydroxyquinoline) aluminum(III)

BCP 9-dimethyl-4,7-diphenyl-1, 10-phenanthroline

CBP 4, 4′-bis(9-carbazolyl)-1,1′-biphenyl

CDBP 4,4’-bis(9-carbazolyl)-2,2’-dimethyl-biphenyl

CF color filter

CIE Commission Internationale d’Eclairage

CRTs cathode ray tubes

CuPc copper phthalocyanine

CV cyclicvoltametric

DI deionized

DMCT dopant-to-matrix charge transfer

EL electroluminescent

EML emitting material Layer

ETL electron transport layer

EQE external quantum efficiency

FIr6 bis[4',6'-difluoro- phenylpyridinato)tetrakis(1-pyrazolyl)borate]

FWHM full width at half maximum

HBL hole and exciton blocking layer

HOMO highest occupied molecular orbital

HTL hole transport layer

IQE internal quantum efficiency

Ir-complex iridium (III) complex

ISC intersystem crossing

ITO indium-tin-oxide

I-V current-voltage

LCDs liquid crystal displays

LED light emitting device

LUMO lowest unoccupied molecular orbital

mCP 1,3-Bis(carbazol-9-yl)benzene

MLCT metal to ligand charge transfer

NMP N-Methyl-2-Pyrrolidone

NPB 4,4′-bis[(1-naphthyl)(phenyl)amino]-1, 1-biphenyl

α-NPD 4,4'-bis[N-(1-naphthyl)-N-phenyl-amino]biphenyl

OLED organic light emitting devices

PDAs potential applications

PEDOT polyethylene dioxythiophene

PL Photoluminescence

PLQY photoluminescence quantum yield

PVK polyvinylcarbazole

QE quantum efficiency

QY quantum yield

RGB red, green and blue

SOC spin-orbit coupling

TBP Tri-n-butylphosphine

TCTA 4,4’,4’’-tris(N-carbazolyl)triphenylamine

TPD N, N’–diphenyl-N, N’-di(3-methylphenyl)-1,1’-biphenyl-4,4’-diamine

UV ultra-violet

UV-VIS ultraviolet-visible

WOLEDs white organic light-emitting devices