**Supporting Information---Tables**

**Table S1.** Functional layers abbreviations and full names.

|  |  |
| --- | --- |
| Abbreviation | Full name |
| HATCN | Dipyrazino[2,3-f:2′,3′-h]quinoxaline-2,3,6,7,10,11-hexacarbonitrile |
| TAPC | 4,4′-Cyclohexylidenebis[*N*,*N*-bis(4-methylphenyl)aniline] |
| TCTA | Tris[4-(carbazol-9-yl)phenyl]amine |
| *m*CP | 1,3-Bis(carbazol-9-yl)benzene |
| *m*CBP | 3,3’-Di(9*H*-carbazol-9-yl)-1,1’-biphenyl |
| PPF | 2,8-Bis(diphenylphosphoryl)dibenzo[b,d]furan |
| TmPyPB | 1,3,5-tri(*m*-pyrid-3-yl-phenyl)benzene |
| TPBi | 2,2',2"-(1,3,5-Benzinetriyl)-tris(1-phenyl-1-*H*-benzimidazole) |

**Table S2.** The EL performances of OLEDs.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Referencea) | *λ*EL (nm) | *V*on (V) | *L*max (cd m−2) | *η*C (cd A−1) | *η*P (lm W−1) | *η*ext (%) | CIE (x, y) |
| maximum value/at 1000 cd m−2 | | |
| [1] | 448 | 3.8 | - | 2.94/- | 2.00/- | 3.71/- | (0.15, 0.08) |
| [2] | 450 | 4.2 | 1815 | 3.4/- | - | 3.6 | (0.15, 0.10) |
| [3] | 452 | 2.7 | 9197 | 6.19/- | 5.11/- | 6.09 | (0.15, 0.15) |
| [4] | 436 | 3.5 | 4036 | 4.01/- | 3.44/- | 6.0/2.3 | (0.16, 0.08) |
| [5] | 448 | 3.3 | 4739 | 5.60/3.43 | 3.76/2.00 | 5.64/3.46 | (0.17, 0.11) |
| [6] | 418 | - | 1165 | 1.16/- | 0.65/- | 2.0/- | (0.15, 0.07) |
| [7] | 436 | - | 3942 | 4.99/- | 3.14/- | 7.51/- | (0.15, 0.08) |
| [8] | 404 | 3.2 | 4065 | 0.84/- | 0.48/- | 3.33/- | (0.16, 0.05) |
| [9] | 436 | 3.0 | - | 2.79/2.30 | 2.61/1.35 | 4.95/4.36 | (0.15, 0.06) |

a) Abbreviations: *λ*EL = electroluminescence peak at 5 V; *V*on = turn-on voltage at 1 cd m−2; *L*max= maximum luminance; *η*C/*η*P/*η*ext = current efficiency/power efficiency/external quantum efficiency; CIE = Commission Internationale de I’Eclairage coordinates at 1000 cd m−2.

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