**Table S1**. Transient PL characteristic and rate constants of the emitting system that contains DBP emitter, TAZTRZ-PXZ sensitizer and CBP host at a concentration ratio of *x*: 10: 100 (298 K).

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Film | *x* | *Φ*PL  [%] | *τ*p  [ns] | *τ*d  [μs] | *k*RISC  [105 s-1] | *k*ISC  [107 s-1] | *k*FET  [108 s-1] | *k*DET  [106 s-1] |
| Binary  Ternary | 0  2 | 55  - | 23.4  4.9 | 0.84  0.26 | 10.0  - | 2.75  - | -  1.61 | -  2.66 |

**Table S2**. Detailed calculation data for *R*0.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| [nm6 mol-1] | *J*(λ)  [M-1 cm-1 nm4] |  | *n* | *Φ*PL  [%] | *R*0  [nm] |
| 5.71×1034 | 5.71×1013 | 0.67 | 1.7 | 0.68 | 8.0 |