Electronic Supplementary Information for

Recent advances in persistent luminescence based on molecular hybrid materials

*Rui Gao,[abc] Mohamad S. Kodaimati[c] and Dongpeng Yan *[ab]*

a. Beijing Key Laboratory of Energy Conversion and Storage Materials, College of Chemistry, and Key Laboratory of Radiopharmaceuticals, Ministry of Education, Beijing Normal University, Beijing 100875, People's Republic of China
E-mail: yandp@bnu.edu.cn
b. State Key Laboratory of Chemical Resource Engineering, Beijing University of Chemical Technology, Beijing 100029, People's Republic of China
c. Department of Chemistry and Chemical Biology, Harvard University, Cambridge, Massachusetts 02138, United States

Table 1: Photophysical parameters of typical RTP and TADF for hybrids materials. (a) The names of the samples in the *Refs*. (b) Emission maxima. (c) The lifetimes (τ) and (d) the quantum yield ($\emptyset$) of TADF or phosphorescence component at room temperature.

Name[a]	λ^{max}_{em} [b]	τ[c]	$\emptyset$[d]	***Ref.***
TMB/PPT	530 nm	> 1hr (afterglow time)	14 ± 3 %	11
Br6A/Br6	~ 500 nm	8.3 ms	55 ± 3 %	20
G1-PVA	530 nm	4.7 ms	24 %	22
QDU-5	500 nm	170 ms	10.7 %	30
Br6A embedded in iPMMA	520 nm	~ 2.08 ms	7.5 %	32
Zn-IPA	484 nm	1321 ms	3.4 %	49
Cd(m-BDC)(BIM)	514 nm	755 ms	3.09 %	50
LIFM-WZ-1	~ 610 nm	6.07 μs	5.6 %	55
Eu^{3+} doped Tb-BTC	615 nm	1.900 ms	61.71 %	61
[Zn(TPA)(DMF)] (1-DMF)	503 nm	472 ms	4. 76 %	69
Coronene-d_{12}@ZIF-8	~ 555 nm	22.4 ± 0.05 s	3.7 ± 0.1 %	83
Cl-based OIHPs	~ 550 nm	35 ms	56.1 %	106
PTPB	~ 560 nm	3.04 ms	11.2 %	108
PEZB-NTA	508 nm	151 ms	42 %	112
TPAPbBr	450 nm	76.43 ms	25.98 %	115
TPP_2ZnCl_4	~ 459 nm	54.0 ms	22.8 %	116
$(Ph_4P)_2Cd_2Br_6$	~ 500 nm	37.85 ms	62.79 %	117
$CdCl_2$-4HP	416 nm	103.12 ms	63.55 %	118
IPA/LDH	489 nm	1.23 s	3.02 %	127
$(TA/LDH@PAA)_{80}$	425 nm	205.5 ms	7.56 %	141
CDs@2D-AlPO	440 nm	197 ms	52.14 %	165
CDs@Zn-CHA	500 nm	22.32 ms	14.1 %	167
CDs@MnAPO-CJ50	620 nm	10.94 ms	9.6 %	168
PNA-Br	557 nm	7.3 ms	22 %	205
MA-IPA	466 nm	1.91 s	24.3 %	209
IPA-ME	524 nm	2 s	1.56 %	216

0.01% X doping BrBID	~506 nm	48 ms	25.4 %	219
amorphous host-guest materials	Not mentioned	> 1 s	> 10%	223
NA/DCB	540 nm	603 ms	20 %	224
10% TPA-QCN:TPBi	613 nm	305 μs	13.7 %	225
CZ-DBFBr	550 nm	0.54 s	41.2 %	227
TPP-3C2B:DMA	500 nm	7 hrs (afterglow time)	Not mentioned	228
PYCl/CB6	500 nm	5400 μs	81.2 %	229
DA1-doped P(FMA-r-MMA)	513 nm	2.51 ms	26.0 %	235
G-doped PVA film	480 nm	0.75 s	11.23 %	237
1 wt% TMB/ZEONOR	526 nm	1.09 s	33% ± 2%	238
PSSNa	544 nm	924.2 ms	4.73 %	247