Supplementary Information

Higher fluorescence in platinum(IV) orthometallated complexes of perylene imine compared with their platinum(II) or palladium(II) analogues

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Fig. S1 Absorption spectra of **4** in different solvents (ca.10^{-5} M) at room temperature.

Fig. S2 Emission and excitation spectra of **4** in MeTHF (ca.10^{-5} M) at room temperature (RT) and low temperature (LT, 77 K).

Fig. S3 Emission and excitation spectra of **8** in MeTHF (ca.10^{-5} M) at room temperature (RT) and low temperature (LT, 77K).

Fig. S4 ^{1}H, $^{1}H/^{195}Pt$ 2D HMBC and ^{31}P NMR spectra

Fig. S5 Fluorescence decays in dichloromethane, at room temperature

Table S1 Calculated absorption parameters (wavelengths in nm, and their intensities) for Perylene imine (HC^N), [Pd(C^N)(acac)], [Pt(C^N)(acac)], and [Pd(C^N)(acac)MeI] in gas phase and chloroform solution. For each entry, main contributions of the orbitals for the transition and their coefficients are shown.

Table S2 Molecular orbitals for Perylene imine (HC^N), [Pd(C^N)(acac)], [Pt(C^N)(acac)], and [Pd(C^N)(acac)MeI]. Percentage compositions for each one entry are obatined from Natural Populations Analysis.

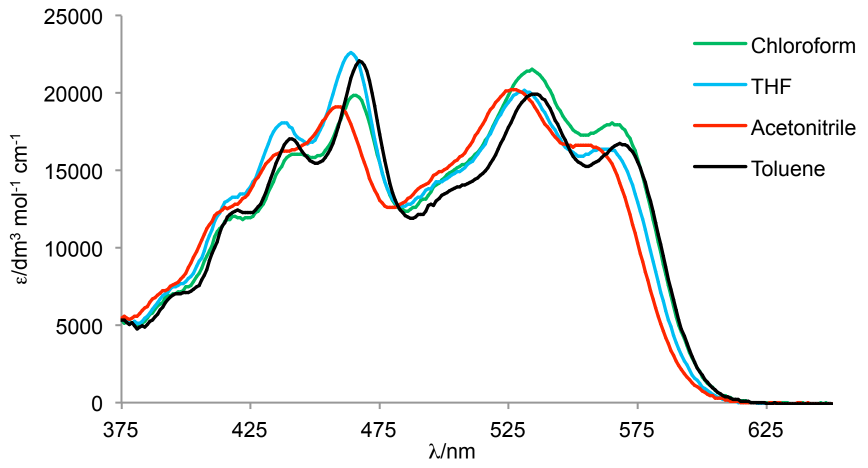


Figure S1. Absorption spectra of of **4** in different solvents (ca.10^{-5} M) at room temperature.

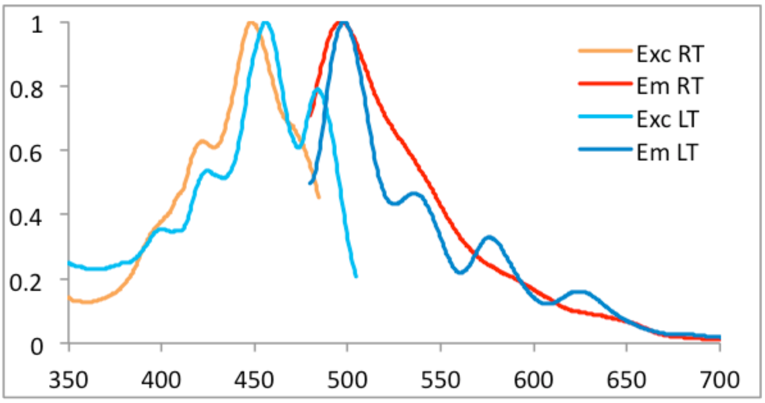


Fig. S2 Emission and excitation spectra of **4** in MeTHF (ca.10^{-5} M) at room temperature (RT) and low temperature (LT, 77 K).

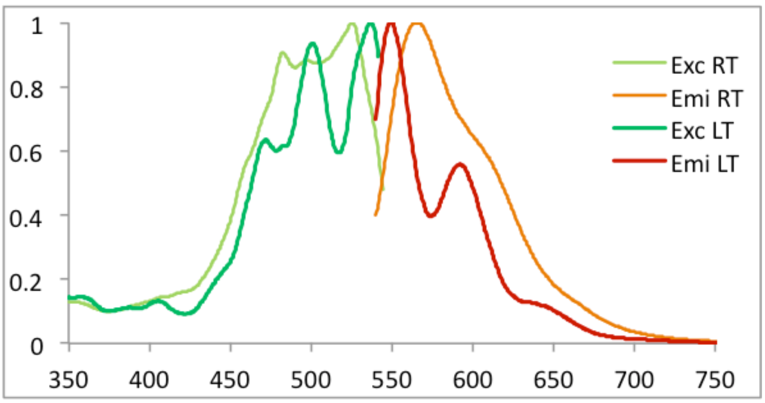
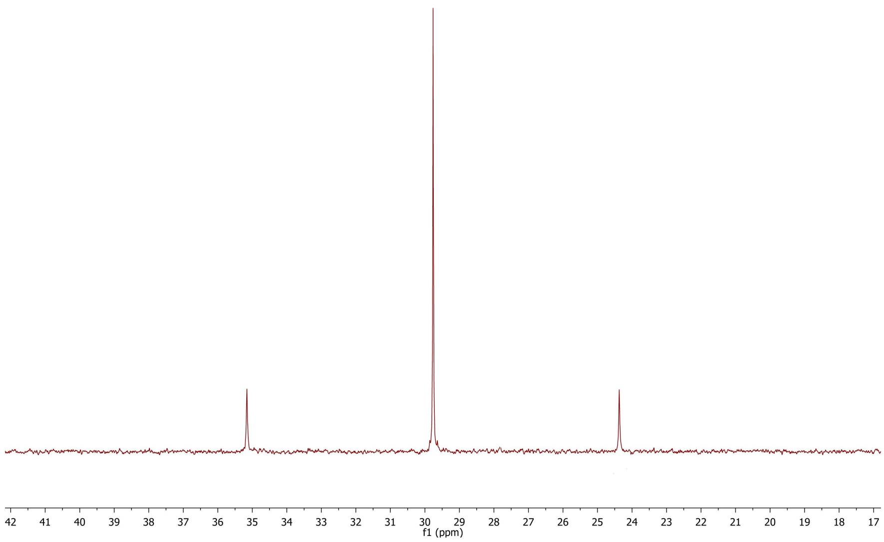


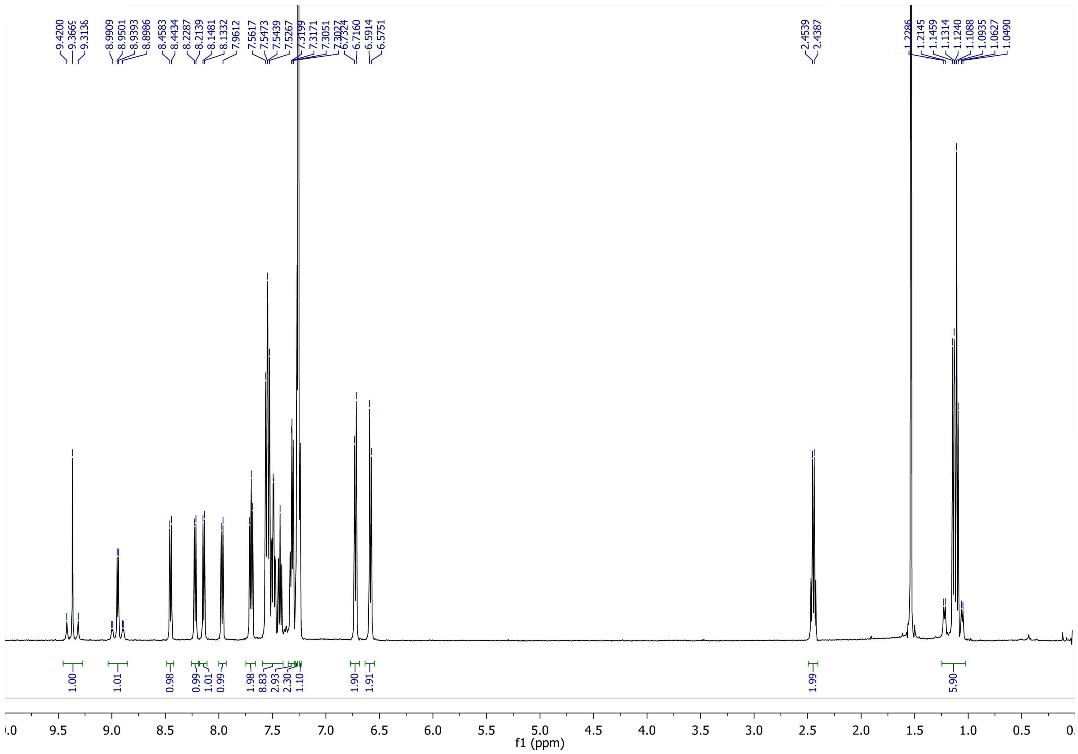
Fig. S3 Emission and excitation spectra of **8** in MeTHF (ca.10^{-5} M) at room temperature (RT) and low temperature (LT, 77K).

Fig. S4 ^{1}H, $^{1}H/^{195}Pt$ 2D HMBC and ^{31}P NMR spectra

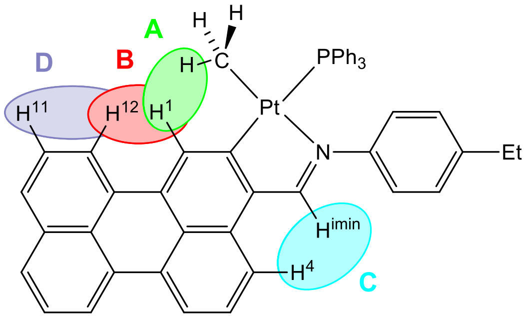
^{31}P NMR **2**

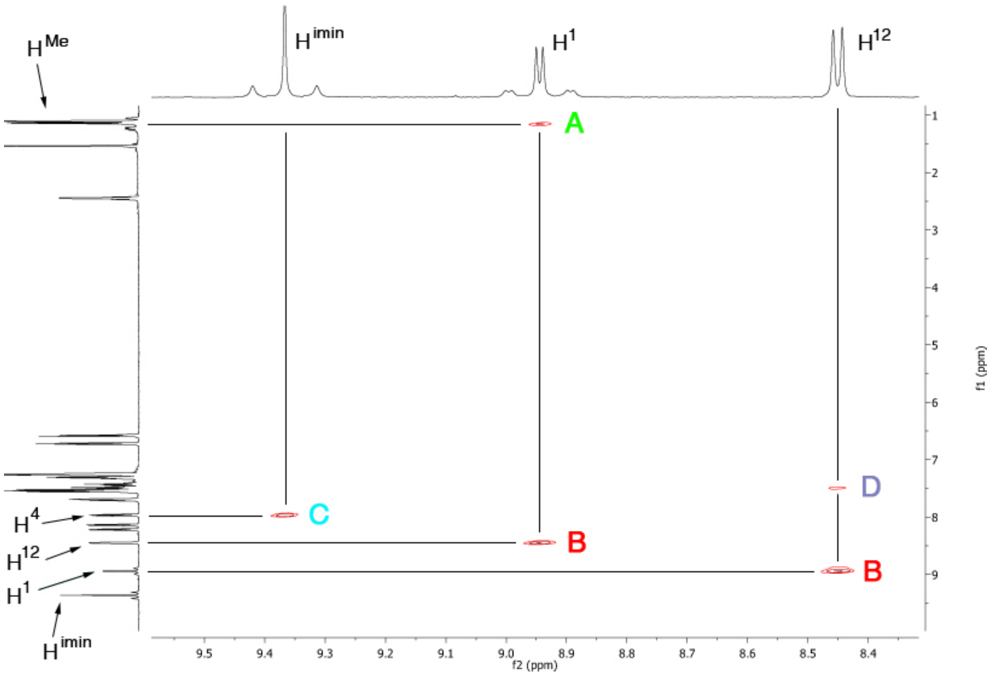


^{1}H NMR **2**

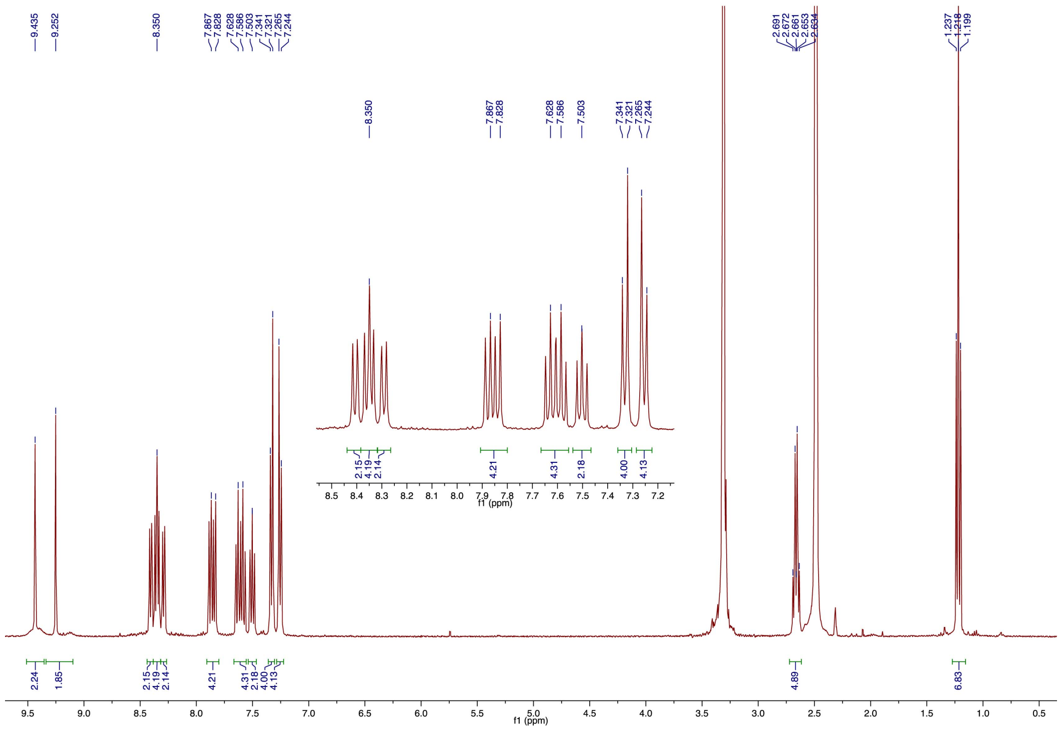


NOESY **2**

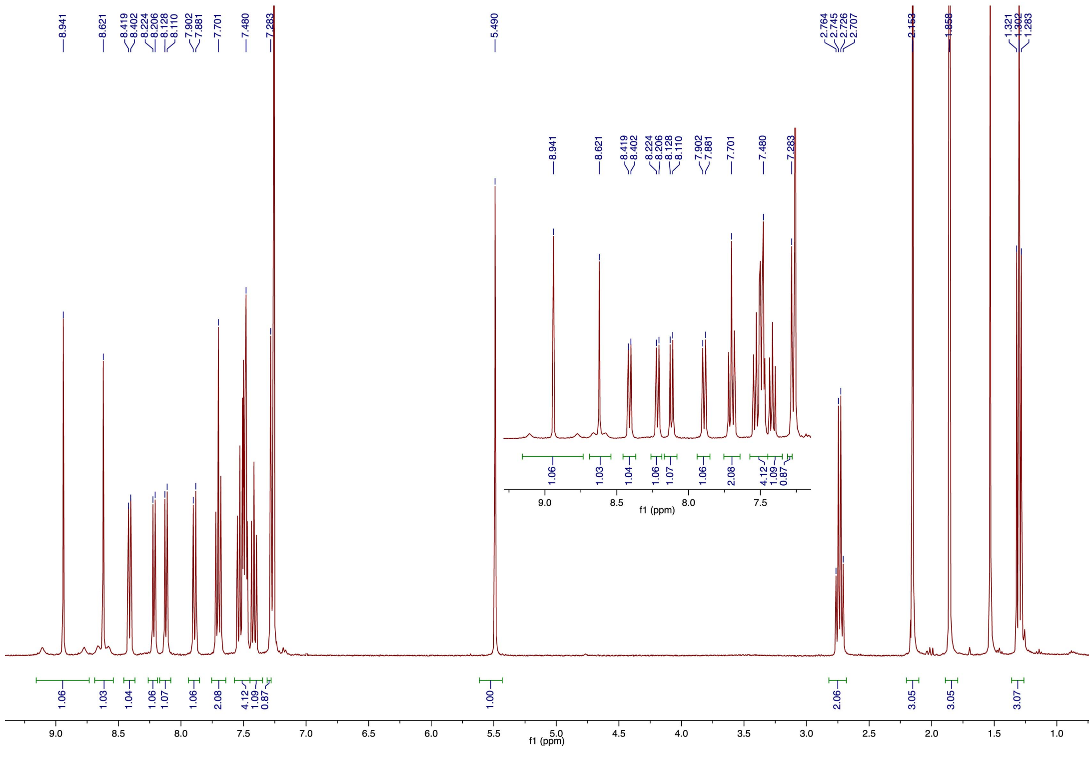

A
B
D
H
H
H–C
PPh3
H11
H12
H1
Pt
N
Et
Himin
H4
C


HMe
Himin
H1
H12
A
C
D
B
B
H4
H12
H1
Himin
f2 (ppm)
f1 (ppm)

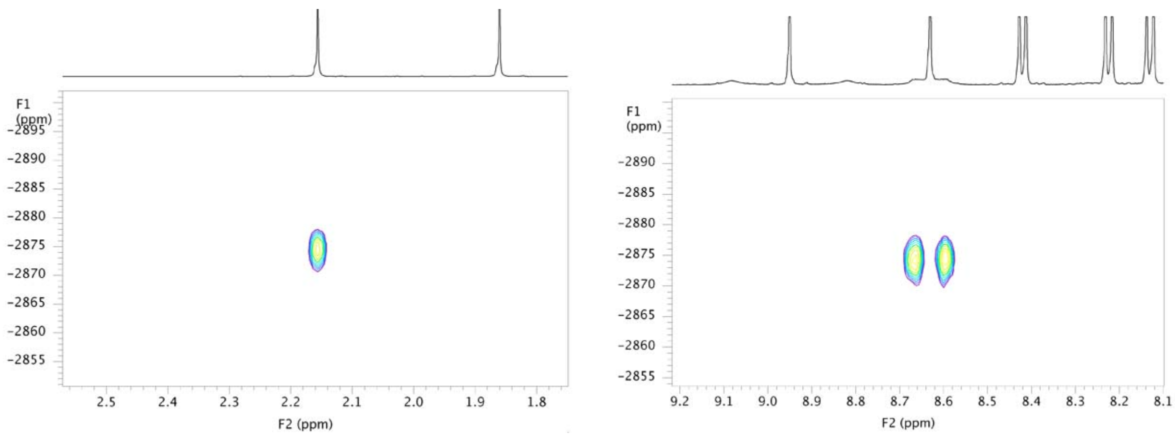
^{1}H NMR **3**



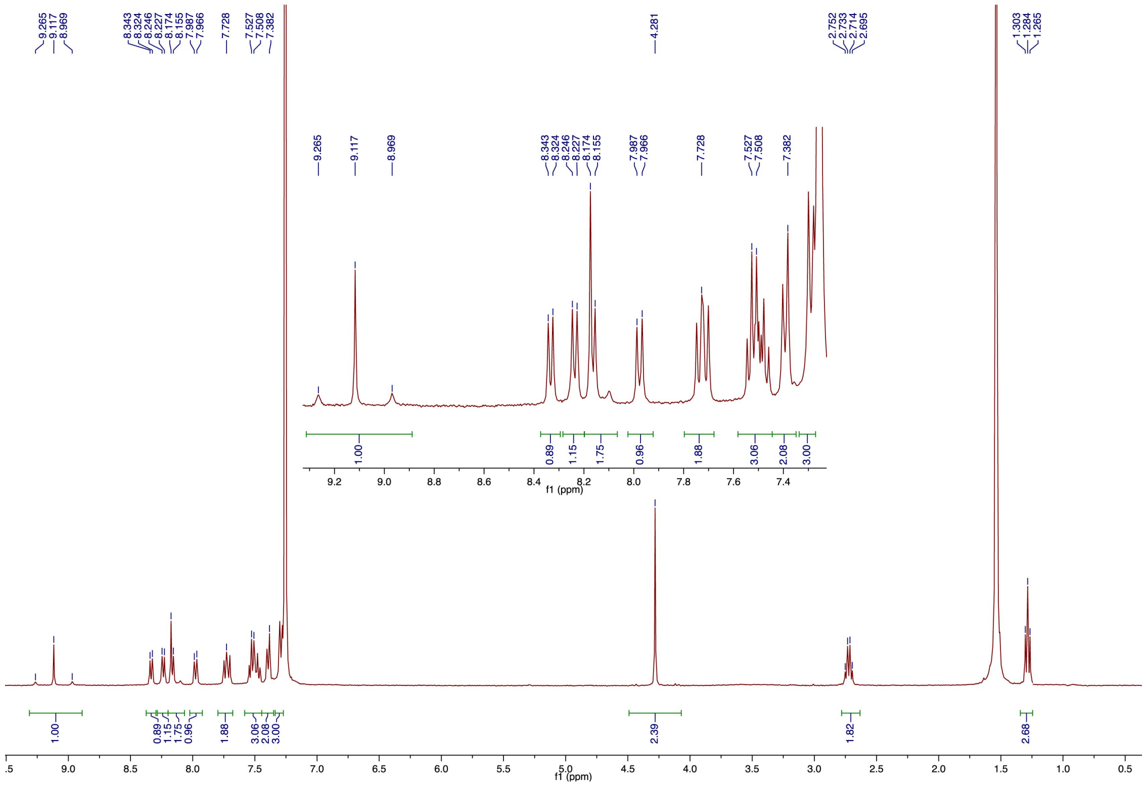
^{1}H NMR **4**



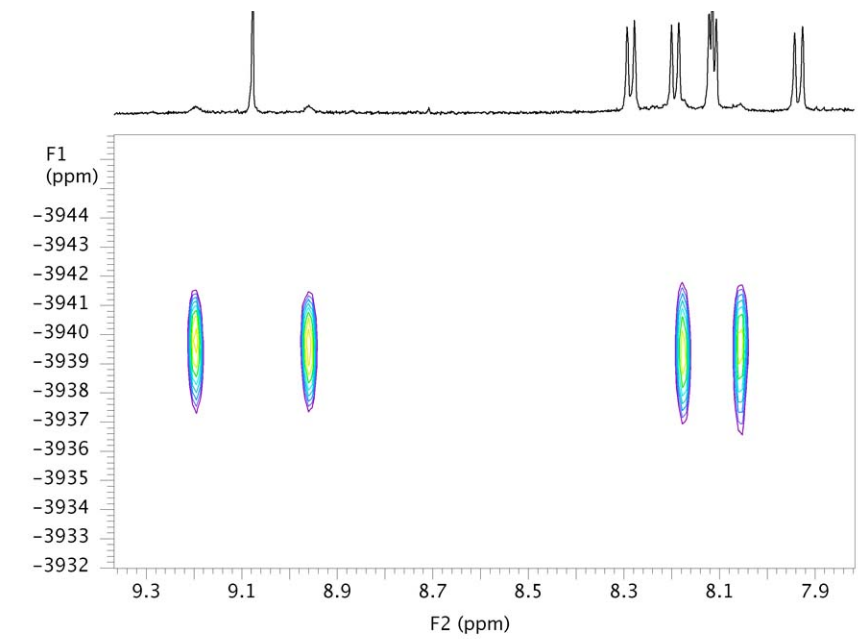
$^{1}H/^{195}Pt$ 2D HMBC spectrum of **4**



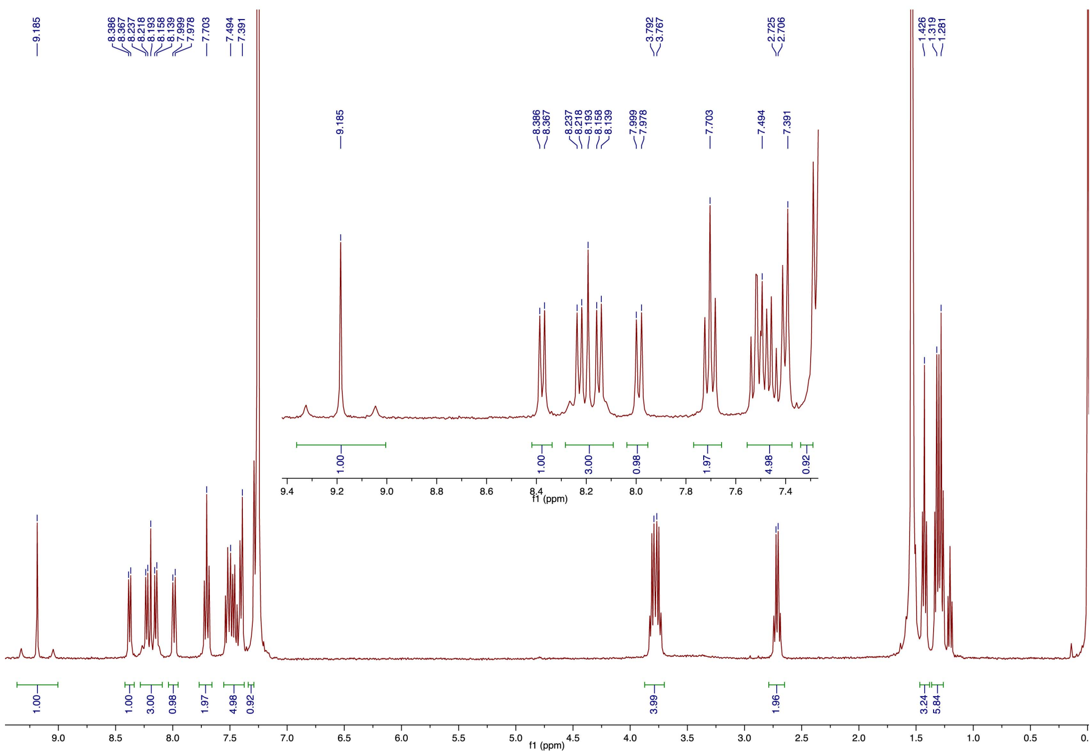
^{1}H NMR **5**



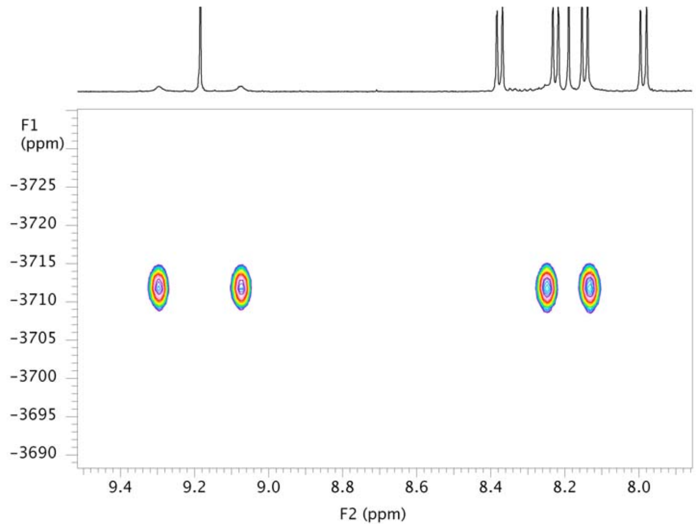
$^{1}H/^{195}Pt$ 2D HMBC spectrum of **5**



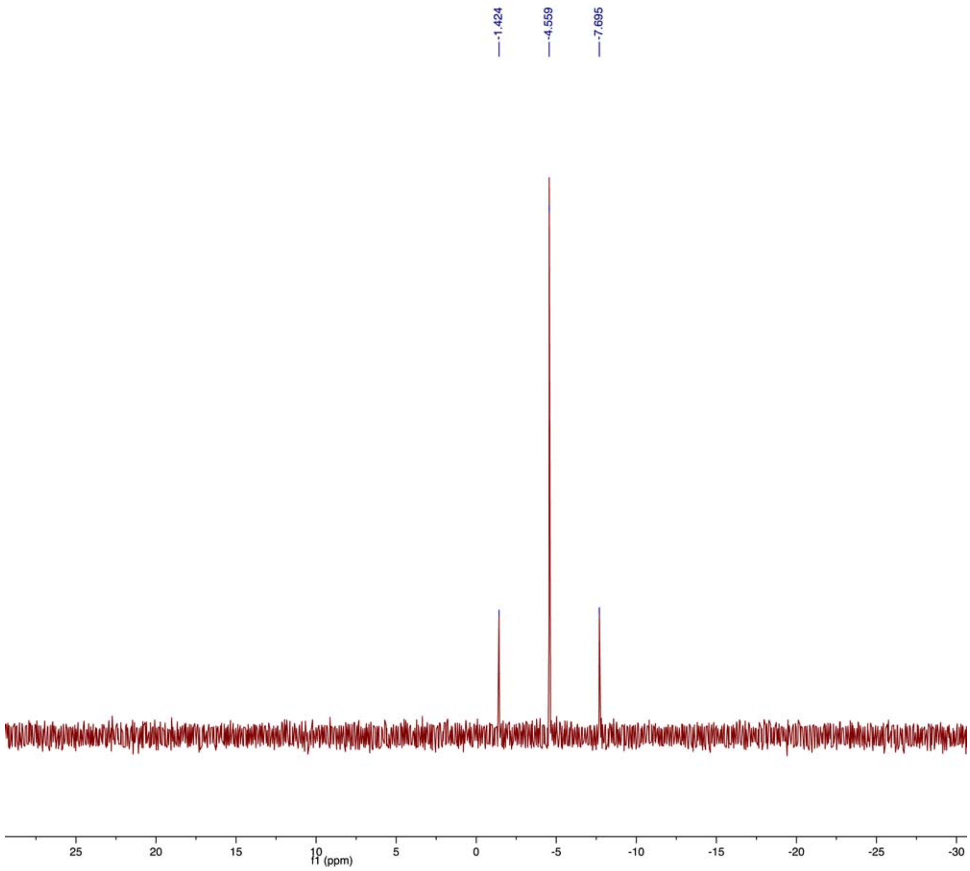
^{1}H NMR **6**



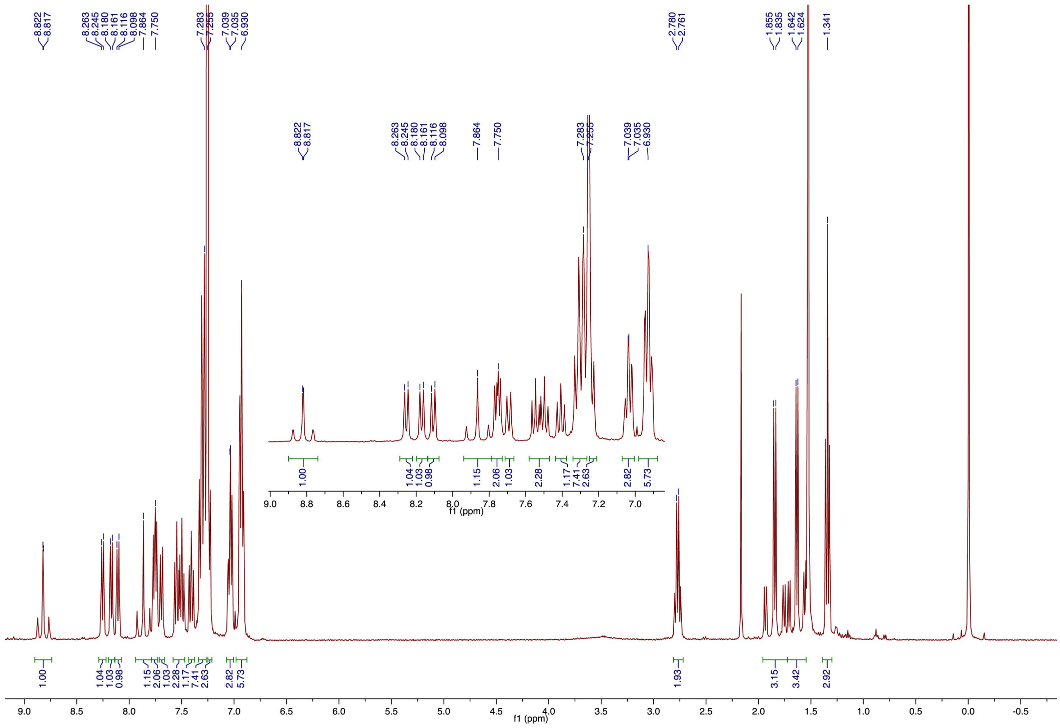
$^{1}H/^{195}Pt$ 2D HMBC spectrum of **6**



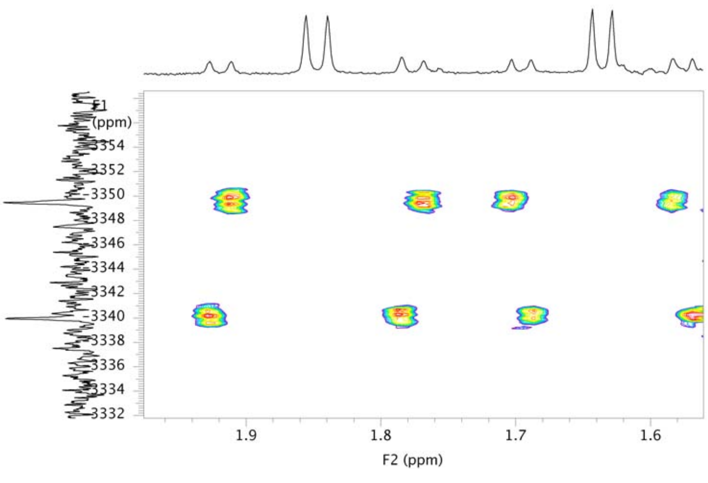
^{31}P NMR **7**



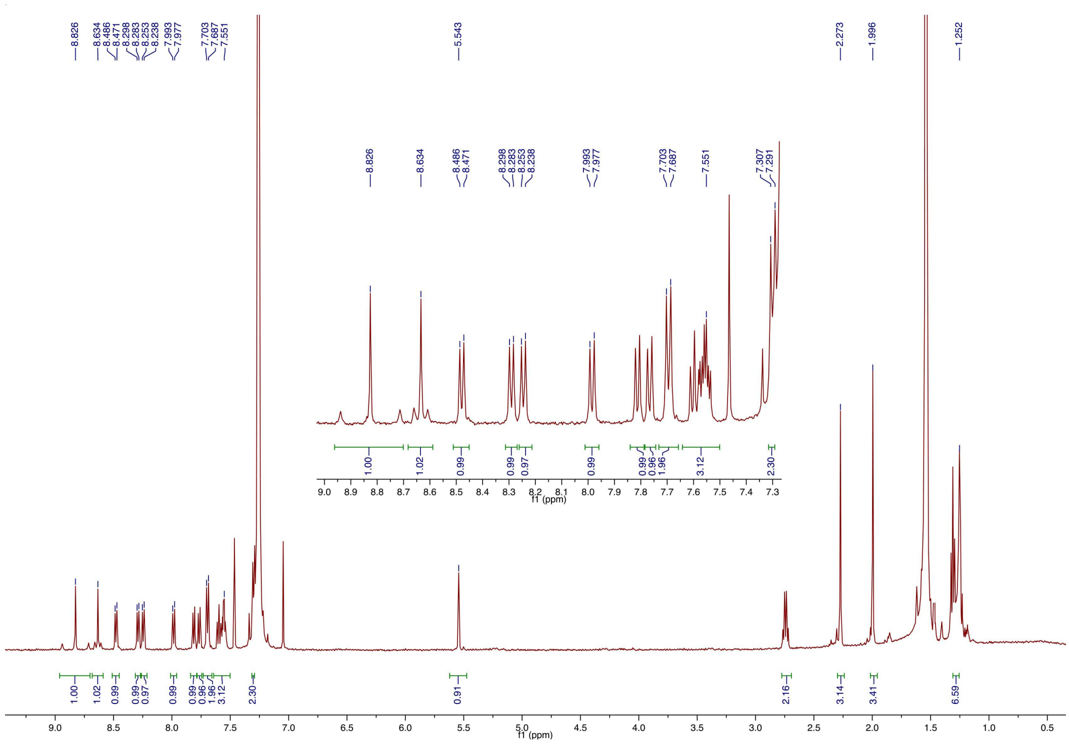
^{1}H NMR **7**



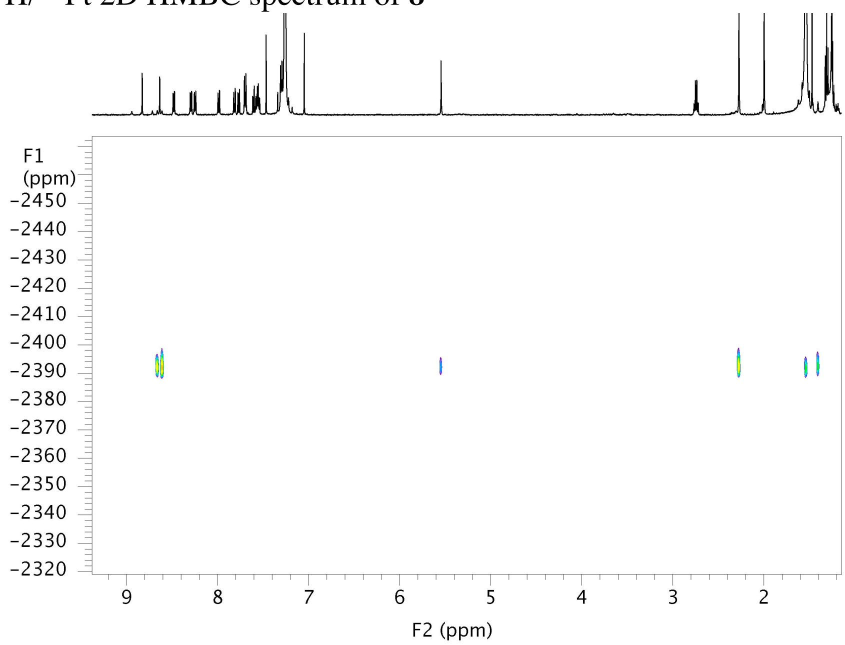
^{1}H/^{195}Pt 2D HMBC spectrum of **7**



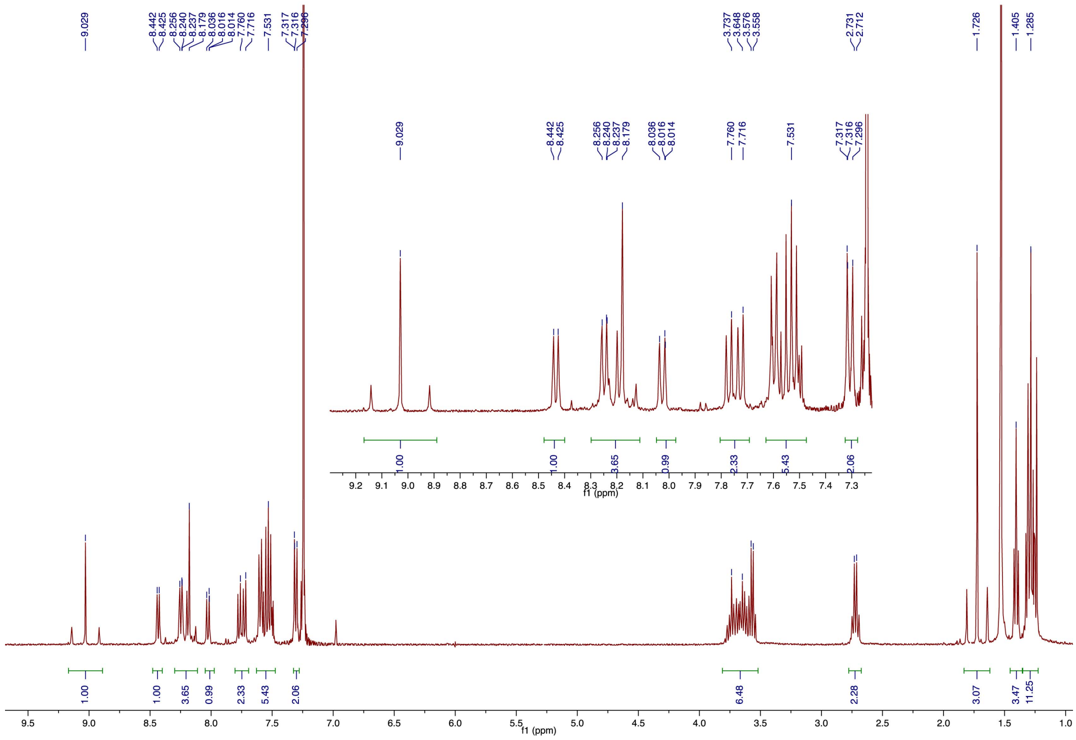
^{1}H NMR **8**



^{1}H/^{195}Pt 2D HMBC spectrum of **8**



^{1}H NMR **9**



^{1}H/^{195}Pt 2D HMBC spectrum of **9**

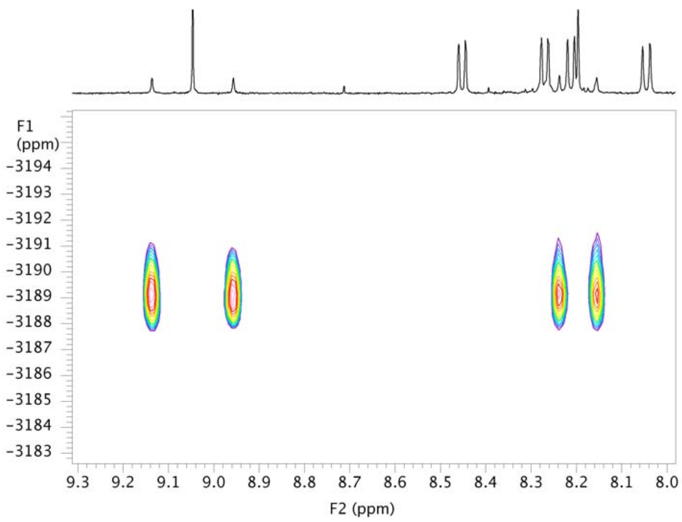


Table S1. Calculated absorption parameters (wavelengths in nm, and their intensities) for Perylene imine (HC^N), [Pd(C^N)(acac)], [Pt(C^N)(acac)], and [Pd(C^N)(acac)MeI] in gas phase and chloroform solution. For each entry, main contributions of the orbitals for the transition and their coefficients are shown.

(*a*) Perylene imine HC^N

Gas phase		$CHCl_3$	
λ (*f*)	Assignation	λ (*f*)	Assignation
486 (0.79)	Perylene: HOMO ➔ LUMO [0.70]	506 (0.95)	Perylene: HOMO ➔ LUMO [0.70]
397 (0.02)	ILCT (Ar ➔ Per): π(Ar) ➔ LUMO [0.67]	394 (0.04)	ILCT (Ar ➔ Per): π(Ar) ➔ LUMO [0.67]
362 (0.03)	Perylene: HOMO ➔ π*(Per,C=N) [0.64]	366 (0.03)	Perylene: HOMO ➔ π*(Per,C=N) [0.66]
301 (0.06)	Perylene: HOMO ➔ π*(Per) [0.39] π(Per,C=N) ➔ LUMO [0.28] HOMO ➔ π*(Per) [0.26] π(Per,Ar) ➔ LUMO [0.20] π(C=N) ➔ LUMO [0.20]	302 (0.12)	Perylene: HOMO ➔ π*(Per) [0.37] π(Per) ➔ LUMO [0.28] HOMO ➔ π*(Per) [0.26] π(Per,Ar) ➔ LUMO [0.26] π(Per,C=N) ➔ LUMO [0.23]
295 (0.23)	ILCT (Ar ➔ Per): π(Ar) ➔ π*(Per,C=N) [0.56] π(Per,C=N) ➔ LUMO [0.29]	294 (0.21)	ILCT (Ar ➔ Per): π(Ar) ➔ π*(Per,C=N) [0.58] π(C=N) ➔ LUMO [0.23]
264 (0.22)	Perylene: HOMO ➔ π*(Per) [0.46] HOMO ➔ π*(Per,Ar) [0.31] π(Per) ➔ LUMO [0.24]	267 (0.27)	Perylene: HOMO ➔ π*(Per) [0.44] HOMO ➔ π*(Ar) [0.35] HOMO ➔ π*(Per,Ar) [0.19]
259 (0.07)	Perylene: HOMO ➔ π*(Per,Ar) [0.53] HOMO ➔ π*(Per) [0.26]	261 (0.09)	Perylene: HOMO ➔ π*(Per,Ar) [0.58] HOMO ➔ π*(Per) [0.20]

Annotation for the involved orbitals:
- π(Per) and π*(Per) indicate generic occupied and empty orbitals of perylene. Since all perylene orbitals are of type π, only HOMO and LUMO are emphasized.
- π(Ar), π(C=N), π(acac) and σ(acac) indicate occupied bonding orbitals of ethylphenyl substituent, imine group and acetylacetonato ligand. Analogously, π*(Ar), π*(C=N), π*(acac) and σ*(acac) are empty antibonding ones. I specify a lone pair of iodide ligand
- x^2-y^2, z^2 and πd (*xy*, *xz* or *yz*) indicate a *d*-orbital centered in the metal, assuming the most symmetric environment for the metal.

(*b*) [Pd(C^N)(acac)]

Gas phase		$CHCl_3$	
λ (*f*)	Assignation	λ (*f*)	Assignation
524 (0.60)	Perylene: HOMO ➔ LUMO [0.70]	545 (0.76)	Perylene: HOMO ➔ LUMO [0.70]
429 (0.01)	Perylene+LLCT (acac ➔ Per): π(acac) ➔ LUMO [0.69]	423 (0.07)	Perylene+LLCT (acac ➔ Per): π(acac) ➔ LUMO [0.68]
353 (0.06)	Perylene: π(Per,Ar) ➔ LUMO [0.62]	356 (0.10)	Perylene: π(Per,Ar) ➔ LUMO [0.64]
344 (0.04)	*d*-*d* band: z^2 ➔ x^2-y^2 [0.41] π(acac) ➔ x^2-y^2 [0.32]	344 (0.07)	*d*-*d* band: z^2 ➔ x^2-y^2 [0.50] π(Per,Ar),πd ➔ x^2-y^2 [0.22]
286 (0.08)	Perylene: HOMO ➔ π*(Per) [0.50] πd ➔ LUMO [0.21]	286 (0.09)	Perylene: HOMO ➔ π*(Per) [0.47] z^2 ➔ π*(Per,C=N) [0.34]
279 (0.02)	MLCT (Pd ➔ Per): πd ➔ LUMO [0.42] HOMO ➔ π*(Ar) [0.31] HOMO ➔ π*(Per) [0.23] HOMO ➔ π*(Per) [0.22]	278 (0.11)	MLCT (Pd ➔ Per): πd ➔ LUMO [0.44] HOMO ➔ π*(Per) [0.37]
270 (0.10)	Perylene: HOMO ➔ π*(Per) [0.36] π(Per,Ar) ➔ x^2-y^2 [0.24] π(acac) ➔ π*(acac) [0.23] πd ➔ LUMO [0.22]	271 (0.19)	Perylene: πd ➔ LUMO [0.38] HOMO ➔ π*(Per) [0.36]
267 (0.03)	LLCT (Per ➔ acac): π(Per,Ar),πd ➔ π*(acac) [0.49] z^2 ➔ π*(acac) [0.30] π(Per,Ar),πd ➔ x^2-y^2 [0.20]	268 (0.06)	LLCT (Per ➔ acac): π(Per,Ar),πd ➔ π*(acac) [0.44] z^2 ➔ π*(acac) [0.23] πd ➔ x^2-y^2 [0.20]
262 (0.08)	Perylene: HOMO ➔ π*(Per,Ar) [0.47] π(Per,Ar) ➔ π*(Per,C=N) [0.30] σ(acac) ➔ LUMO [0.20]	263 (0.09)	Perylene: HOMO ➔ π*(Per,Ar) [0.52] π(Per,Ar) ➔ π*(Per,C=N) [0.31]
259 (0.06)	LMCT (Per ➔ Pd): π(Per,Ar) ➔ x^2-y^2 [0.34] σ(acac) ➔ LUMO [0.27] π(Per,Ar),πd ➔ x^2-y^2 [0.27] π(Per,Ar),πd ➔ π*(acac) [0.22]	262 (0.11)	LMCT (Per ➔ Pd): π(Per,Ar),πd ➔ x^2-y^2 [0.30] π(Per,Ar),πd ➔ π*(acac) [0.28] π(Per,Ar) ➔ x^2-y^2 [0.28] πd ➔ x^2-y^2 [0.24]

(*c*) [Pt(C^N)(acac)]

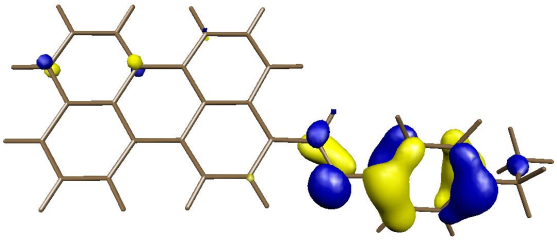
Gas phase		CHCl$_3$	
λ (*f*)	Assignation	λ (*f*)	Assignation
535 (0.51)	Perylene: HOMO ➔ LUMO [0.66]	553 (0.67)	Perylene: HOMO ➔ LUMO [0.69]
440 (0.13)	Perylene+LLCT (acac ➔ Per):: π(acac,Per),πd ➔ LUMO [0.63]	441 (0.14)	Perylene+LLCT (acac ➔ Per):: π(acac,Per),πd ➔ LUMO [0.63]
348 (0.08)	ILCT (Ar ➔ Per): π(Ar,Per) ➔ LUMO [0.62]	353 (0.13)	ILCT (Ar ➔ Per): π(Ar,Per) ➔ LUMO [0.56] HOMO ➔ π*(Per,C=N) [0.36]
289 (0.12)	*No be classified*: π(acac,Per),πd ➔ π*(acac) [0.50] HOMO ➔ π*(Per) [0.23] π(Per),πd ➔ LUMO [0.20]	289 (0.14)	*No be classified*: HOMO ➔ π*(Per) [0.38] π(acac,Per),πd ➔ π*(acac) [0.36] z^2 ➔ π*(Per,C=N) [0.23]
271 (0.08)	Perylene: π(acac,Per),πd ➔ π*(Ar),x^2-y^2 [0.29] π(acac,Per),πd ➔ π*(acac) [0.28] HOMO ➔ π*(Per) [0.23]	272 (0.18)	Perylene: πd,π(Per) ➔ LUMO [0.34] HOMO ➔ π*(Per) [0.31] π(acac,Per),πd ➔ π*(Ar),x^2-y^2 [0.26] π(Ar,Per) ➔ π*(Per,C=N) [0.20]
270 (0.07)	LLCT (Per ➔ acac): π(acac,Per),πd ➔ π*(acac) [0.40] π(Ar,Per,acac),πd ➔ π*(acac) [0.27] HOMO ➔ π*(Per) [0.22]	269 (0.03)	LLCT (Per ➔ acac): π(acac,Per),πd ➔ π*(acac) [0.40] π(Ar) ➔ π*(acac) [0.33] π(Ar,Per) ➔ π*(Per,C=N) [0.21] σ(acac)➔ π*(acac) [0.20]
263 (0.05)	Perylene: π(Ar,Per) ➔ π*(Per,C=N) [0.44] HOMO ➔ π*(Per) [0.26] π(acac,Per),πd ➔ π*(Ar),x^2-y^2 [0.23]	265 (0.07)	Perylene: π(Ar,Per) ➔ π*(Per,C=N) [0.49] HOMO ➔ π*(Per) [0.25] π(acac,Per),πd ➔ π*(Ar),x^2-y^2 [0.22]
259 (0.08)	Perylene: π(acac,Per),πd ➔ π*(Per) [0.60]	259 (0.12)	Perylene: HOMO ➔ π*(Per),x^2-y^2 [0.46] π(acac,Per),πd ➔ π*(Per) [0.37]

(*d*) [Pt(C^N)(acac)MeI]

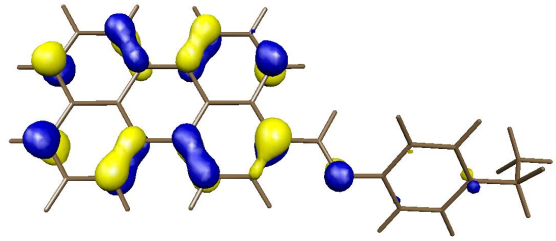
Gas phase		$CHCl_3$	
λ (*f*)	Assignation	λ (*f*)	Assignation
518 (0.60)	Perylene: HOMO ➔ LUMO [0.66] I ➔ LUMO [0.23]	547 (0.72)	Perylene: HOMO ➔ LUMO [0.70]
390 (0.04)	Perylene+LLCT (acac ➔ Per): π(acac) ➔ LUMO [0.67]	388 (0.04)	Perylene+LLCT (acac ➔ Per): π(Ar) ➔ LUMO [0.67]
381 (0.03)	Perylene: HOMO ➔ π*(Per,C=N) [0.50] π(Ar) ➔ LUMO [0.38]	380 (0.05)	Perylene+LLCT (acac ➔ Per): HOMO ➔ π*(Per,C=N) [0.59] π(acac) ➔ LUMO [0.34]
363 (0.04)	ILCT+Perylene: π(Ar) ➔ LUMO [0.48] HOMO ➔ π*(Per,C=N) [0.28] HOMO ➔ x^2-y^2 [0.23]	365 (0.13)	LLCT+Perylene: π(acac) ➔ LUMO [0.59] HOMO ➔ π*(Per,C=N) [0.34]
332 (0.05)	Perylene: π(Per) ➔ LUMO [0.63]	324 (0.06)	Perylene: π(Per) ➔ LUMO [0.61]
291 (0.07)	LLCT+LMCT (acac ➔ Per,Pt): π(acac) ➔ π*(Per-CN) [0.50] π(acac) ➔ x^2-y^2 [0.31] π(Ar) ➔ x^2-y^2 [0.22]	286 (0.10)	ILCT+LLCT (Ar,I ➔ Per,Pt): π(Ar) ➔ π*(Per,C=N) [0.48] I ➔ π*(Per),z^2 [0.31]
278 (0.11)	ILCT+LMCT (Ar ➔ Per,Pt): π(Ar) ➔ π*(Per,C=N) [0.53] π(Ar) ➔ x^2-y^2 [0.32]	276 (0.05)	CT (Ar,acac ➔ Per,Pt): π(Ar) ➔ x^2-y^2 [0.38] π(acac) ➔ π*(Per,C=N) [0.26] π(acac) ➔ x^2-y^2 [0.25] I,π(acac) ➔ π*(Per),z^2 [0.23]
274 (0.05)	LLCT (acac,Per ➔ Per,Ar): I,π(acac) ➔ π*(Per),z^2 [0.31] HOMO ➔ π*(Ar) [0.28] I ➔ π*(Ar) [0.27] π(Ar) ➔ π*(Per,C=N) [0.23]	276 (0.14)	LLCT (acac,Ar ➔ Per): π(acac) ➔ π*(Per,C=N) [0.40] I,π(acac) ➔ π*(Per),z^2 [0.39] π(Ar) ➔ π*(Per,C=N) [0.21]
268 (0.05)	Perylene+CT (I ➔ Pt): I ➔ π*(Per) [0.40] HOMO ➔ π*(Per) [0.28] πd ➔ LUMO [0.23]	269 (0.09)	Perylene+CT (Ar ➔ acac,Pt): HOMO ➔ π*(Per) [0.35] π(Ar) ➔ π*(acac) [0.34] π(Ar) ➔ x^2-y^2 [0.20]
266 (0.08)	*No be classified*: π(acac) ➔ π*(acac) [0.31] πd ➔ LUMO [0.25] π(Per) ➔ x^2-y^2 [0.22] I,π(acac) ➔ π*(Per),z^2 [0.20] HOMO ➔ π*(Per) [0.20]	261 (0.10)	*No be classified*: π(Per) ➔ x^2-y^2 [0.26] π(Ar) ➔ π*(Per),z^2 [0.25] I,π(acac) ➔ π*(Per),z^2 [0.22] π(Per) ➔ x^2-y^2 [0.21]

Table S2. Molecular orbitals for Perylene imine (HC^N), [Pd(C^N)(acac)], [Pt(C^N)(acac)], and [Pd(C^N)(acac)MeI]. Percentage compositions for each one entry are obatined from Natural Populations Analysis.

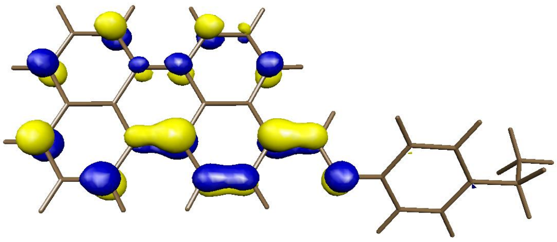
(*a*) Perylene imine HC^N



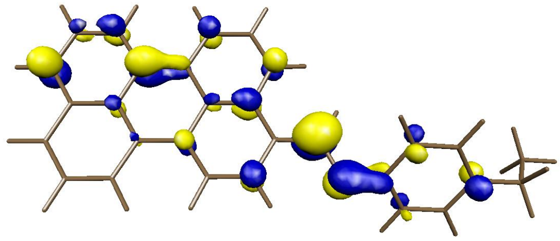
MO 100: -0.215 Ha
Ar (55), imine (22), Per (13)



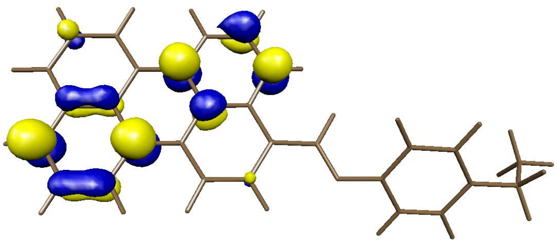
MO 101 (*HOMO*): -0.183 Ha
Per (86), imine (5), Ar (6)



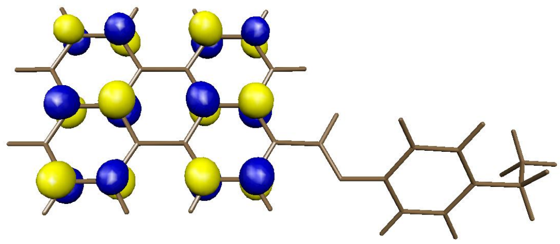
MO 102 (*LUMO*): -0.083 Ha
Per (79), imine (12), Ar (3)



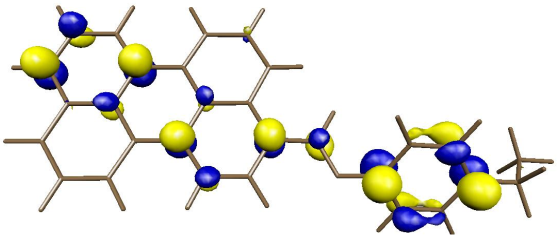
MO 103: -0.041 Ha
Per (51), imine (27), Ar (13)



MO 105: -0.006 Ha
Per (95)

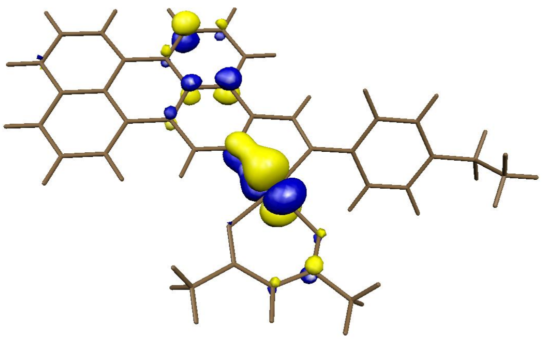


MO 106: -0.001 Ha
Per (98)

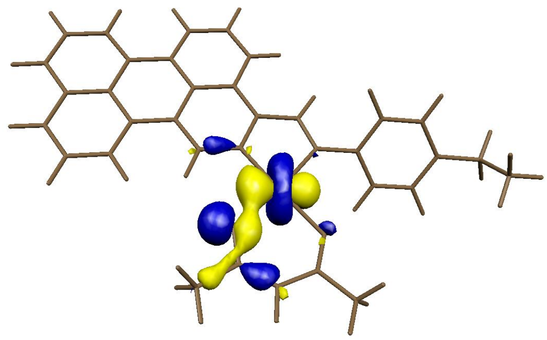


MO 108: +0.008 Ha
Per (50), Ar (35), imine (5)

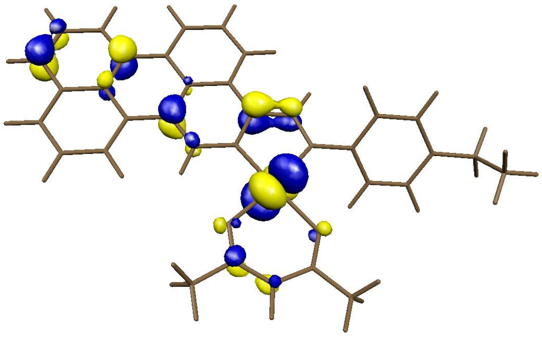
(*b*) [Pd(C^N)(acac)]



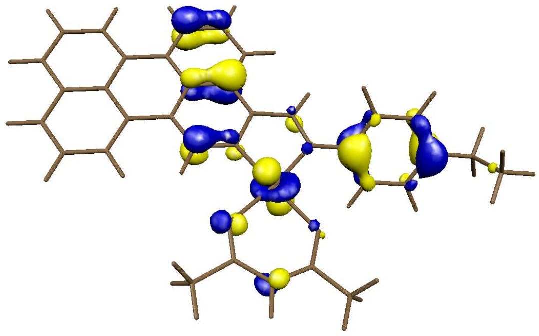
MO 124: -0.274 Ha
Pd (53), Per (37), acac (5)



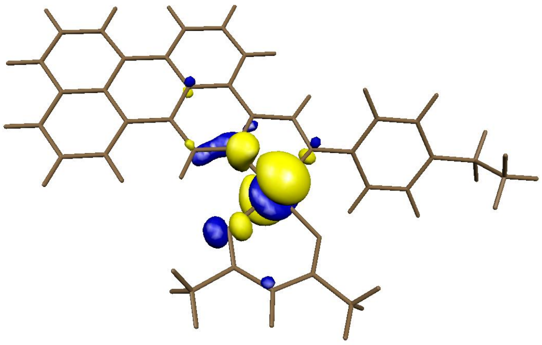
MO 125: -0.265 Ha
Pd (59), acac (28), Per (3)



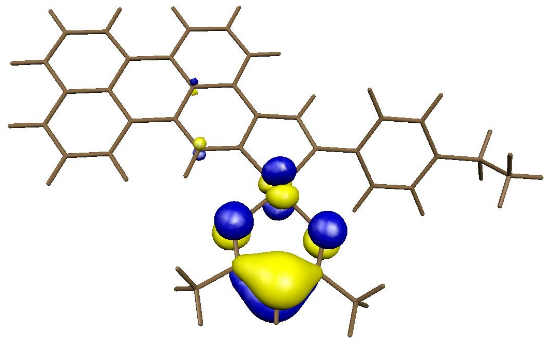
MO 126: -0.259 Ha
Pd (40), Per (39), acac (8), inine (4)



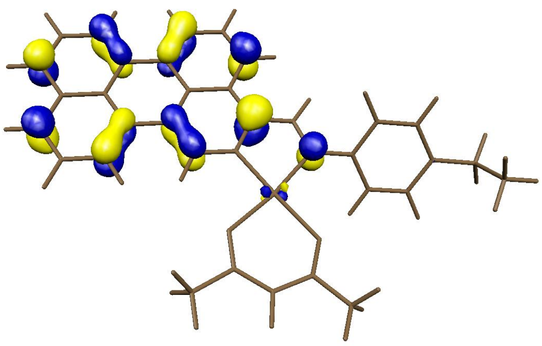
MO 132: -0.234 Ha
Per (35), Ar (28), Pd (12), acac (8)



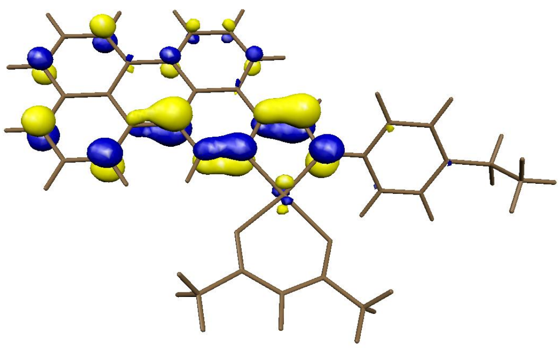
MO 133: -0.224 Ha
Pd (66), Per (14), acac (8)



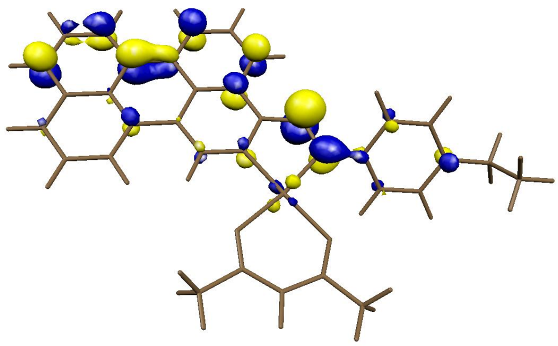
MO 135: -0.210 Ha
acac (71), Pd (14), Per (8)



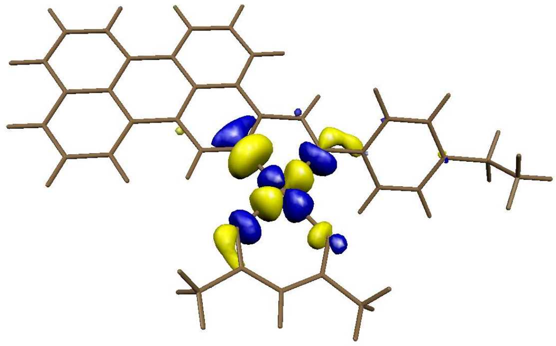
MO 136 (*HOMO*): -0.186 Ha
MO 136 (*HOMO*): **Per (89)**, imine (6)



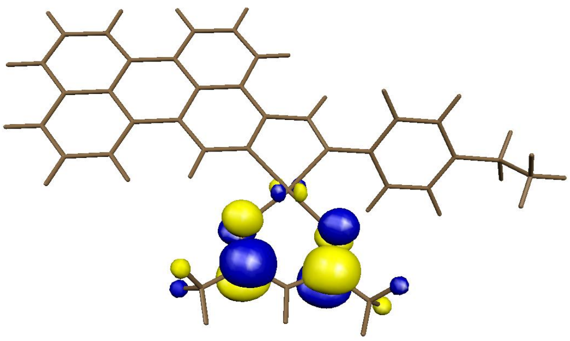
MO 137 (*LUMO*): -0.086 Ha
Per (64), imine (20), Ar (4), Pd (4)



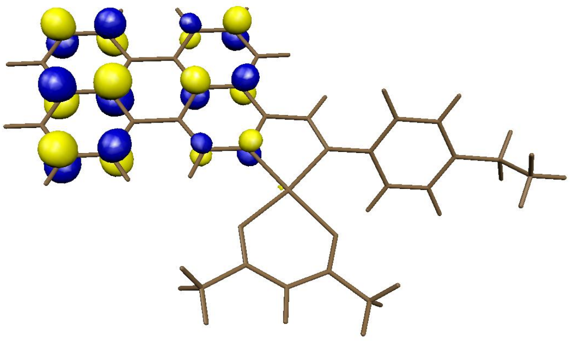
MO 138: -0.046 Ha
Per (56), imine (23), Ar (9), Pd (3)



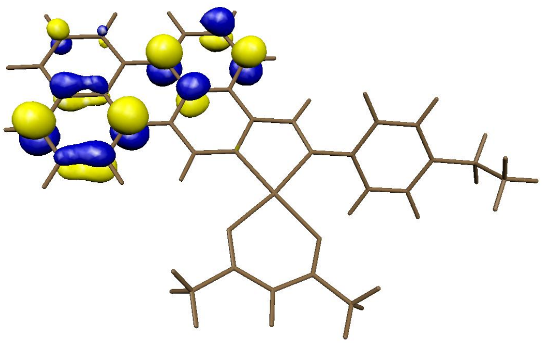
MO 139: -0.032 Ha
Pd (47), Per (17), acac(10), imine (8), Ar (5)



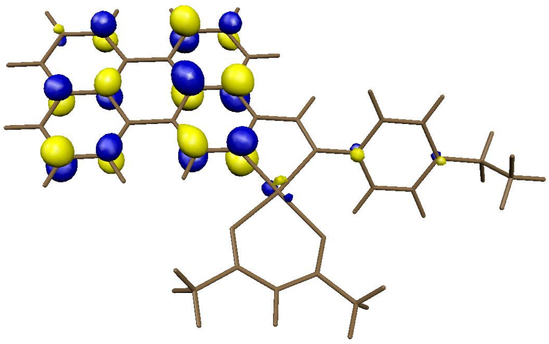
MO 140: -0.029 Ha
acac (93), Pd (2)



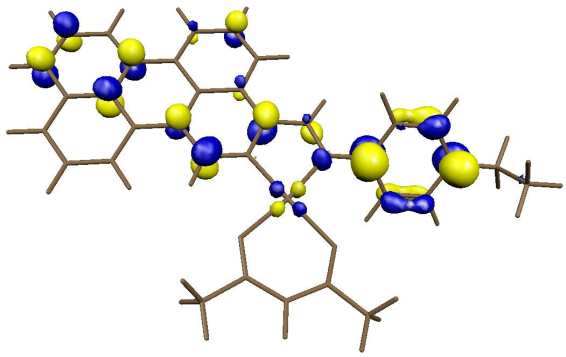
MO 141: -0.015 Ha
Per (96)



MO 142: -0.004 Ha
Per (93)

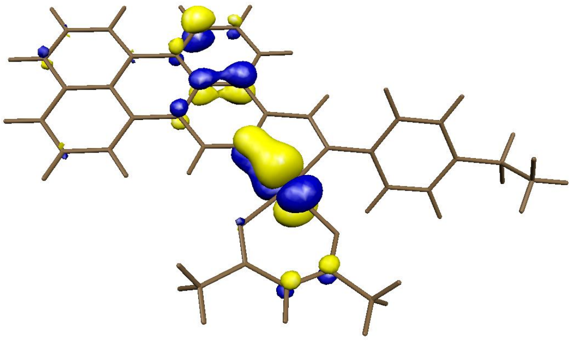


MO 144: 0.003 Ha
Per (78), Pd (8), Ar (4)

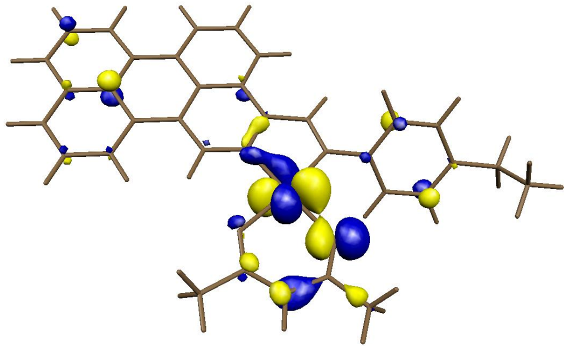


MO 145: +0.008 Ha
Per (45), Ar (39), Pd (3), imine (2)

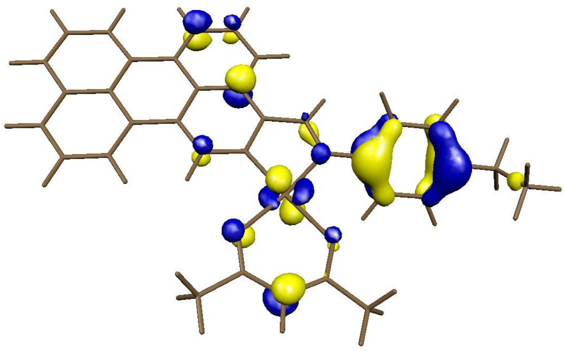
(*c*) [Pt(C^N)(acac)]



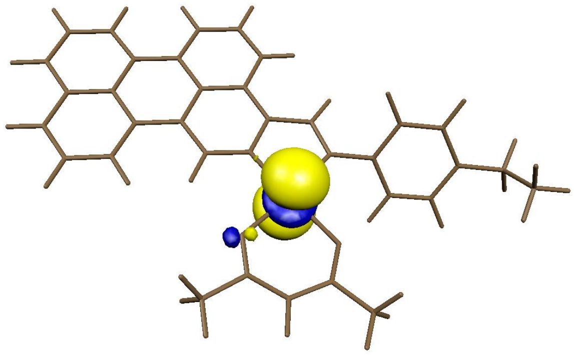
MO 124: -0.270 Ha
Per (45), Pt (42), acac (6)



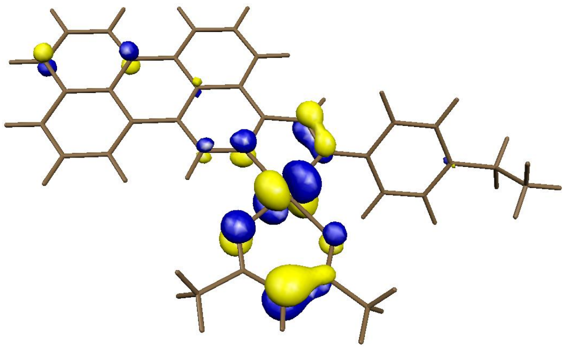
MO 130: -0.246 Ha
Pt (30), acac (25), Per (25), Ar (11)



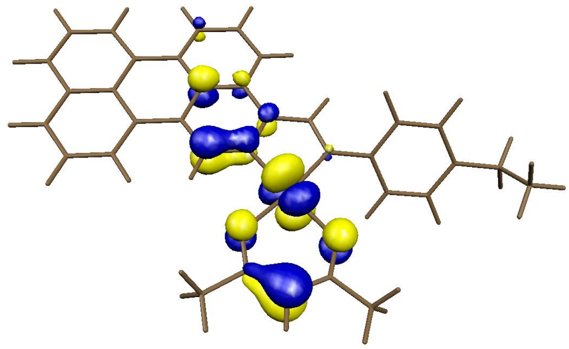
MO 132: -0.233 Ha
Ar (41), Per (24), acac (12), Pt (8), imine (4)



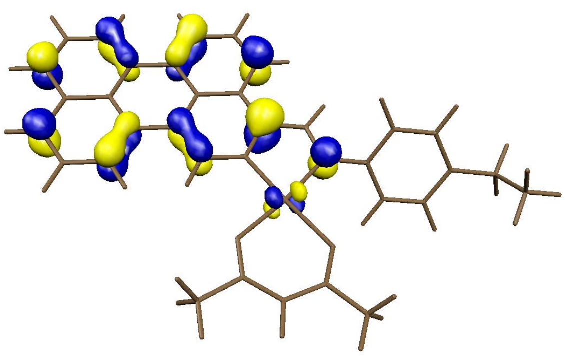
MO 133: -0.223 Ha
Pt (89), Per (3), acac (2)



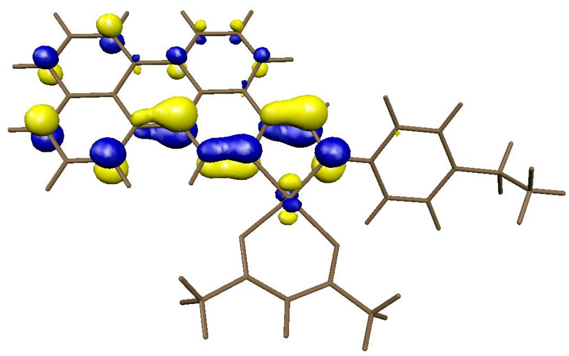
MO 134: -0.214 Ha
Pt (31), acac (26), Per (20), imine (8), Ar (4)



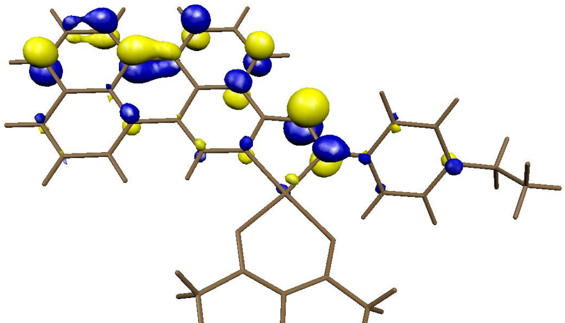
MO 135: -0.207 Ha
Pt (30), acac (30), Per (30)



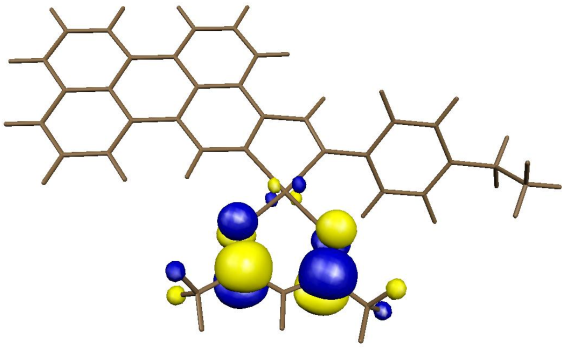
MO 136 (*HOMO*): -0.180 Ha
Per (82), imine (7), Pt (4), Ar (3)



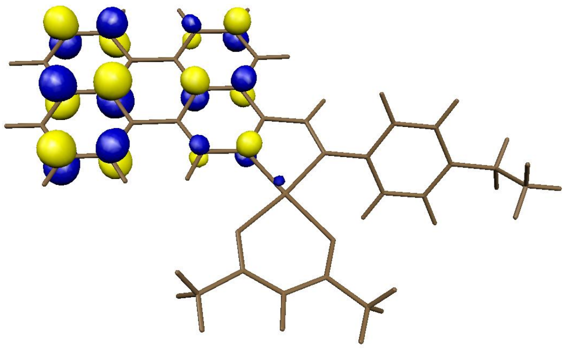
MO 137 (*LUMO*): -0.084 Ha
Per (67), imine (19), Pt (5), Ar (3)



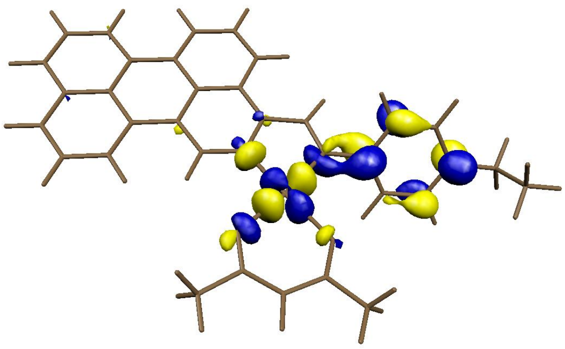
MO 138: -0.044 Ha
Per (60), imine (23), Ar (8), Pt (2)



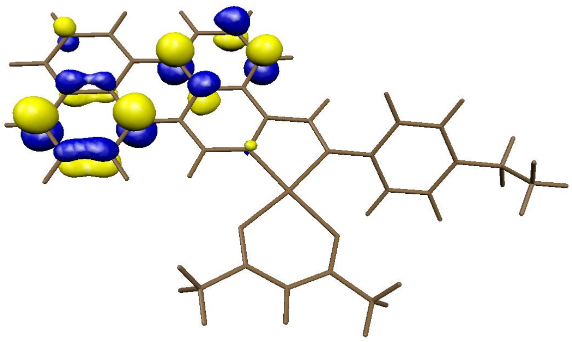
MO 139: -0.035 Ha
acac (93), Pt (2)



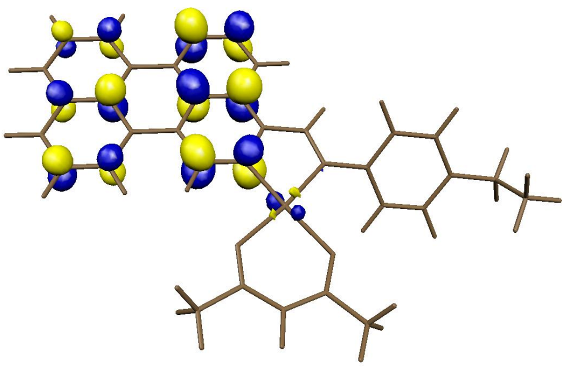
MO 140: -0.014 Ha
Per (92), Pt (1)



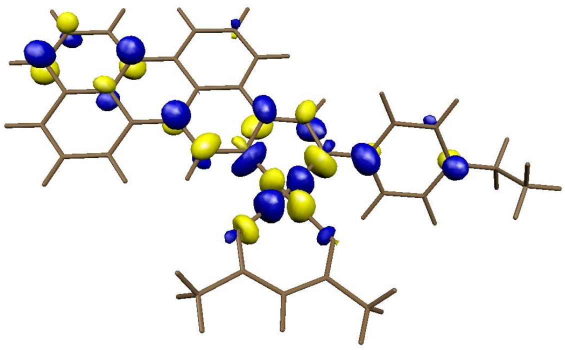
MO 141: -0.007 Ha
Ar (39), Pt (27), Per (13), acac (4), CN (3)



MO 143: +0.002 Ha
Per (92), Pt (2)

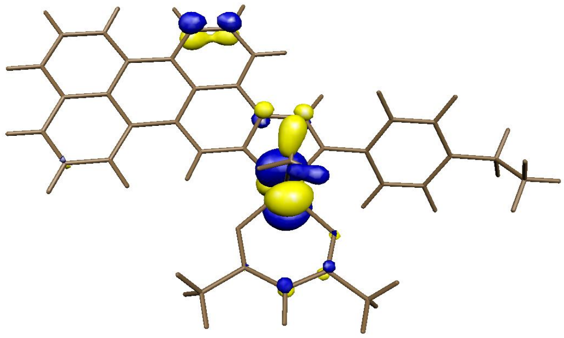


MO 144: +0.006 Ha
Per (86), Pt (8)

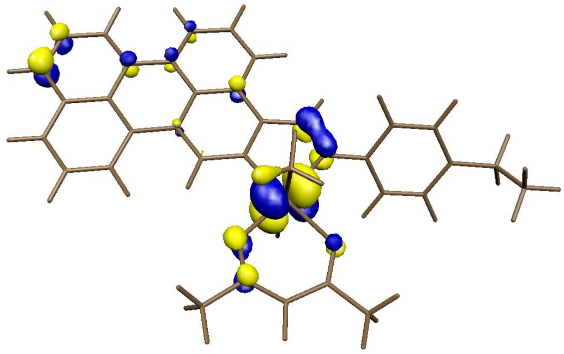


MO 145: +0.016 Ha
Per (44), Pt (21), Ar (12), imine (9), acac (2)

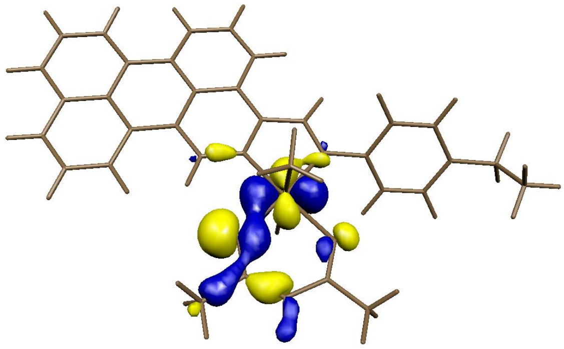
(*d*) [Pt(C^N)(acac)MeI]



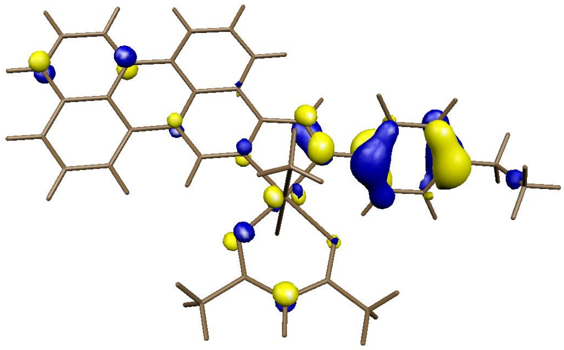
MO 130: -0.309 Ha
Pt (51), Per (25), acac (7), imine (3)



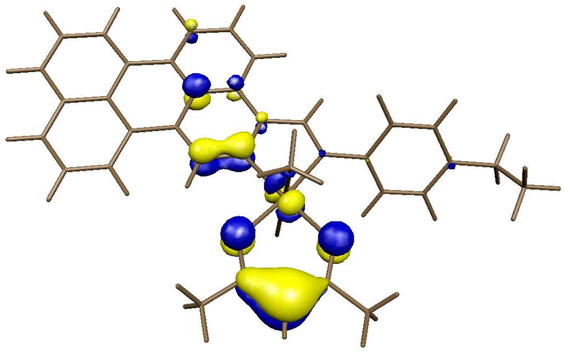
MO 131: -0.093 Ha
Pt (42), Per (29), acac (8), imine (8)



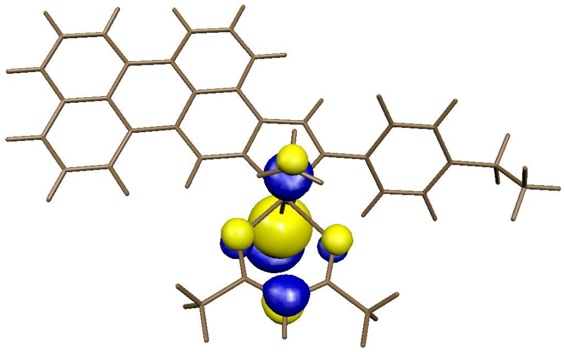
MO 132: -0.289 Ha
acac (48), Pt (38), Per (3)



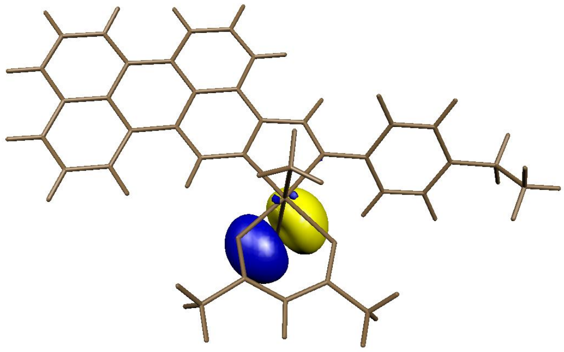
MO 139: -0.235 Ha
Ar (43), Per (22), imine (9), acac (7), Pt (4), I (4)



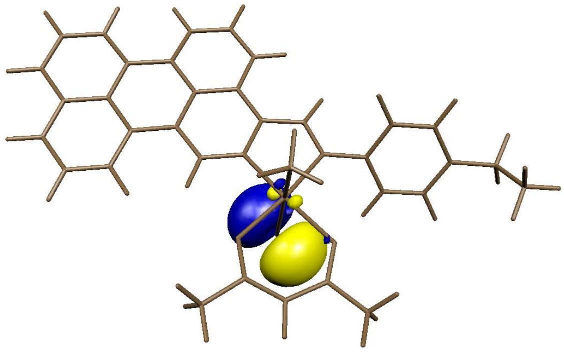
MO 140: -0.230 Ha
acac (47), Per (24), Pt (8), I (6), Ar (3), Me (2)



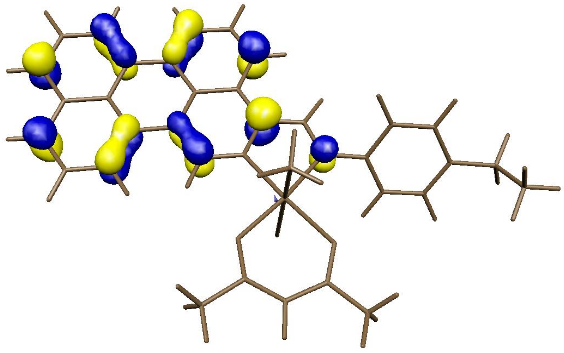
MO 141: -0.212 Ha
I (48), acac (25), Me (13), Pt (6)



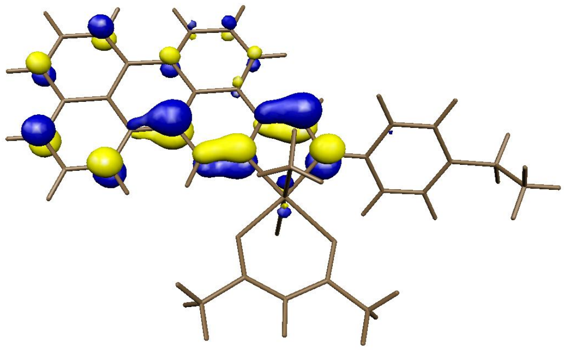
MO 142: -0.195 Ha
I (91), Pt (3)



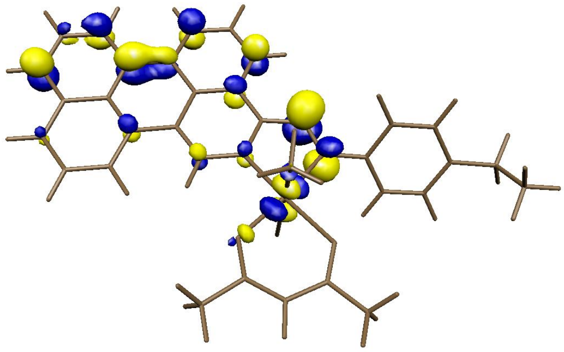
MO 143: -0.194 Ha
I (94), Pt (4)



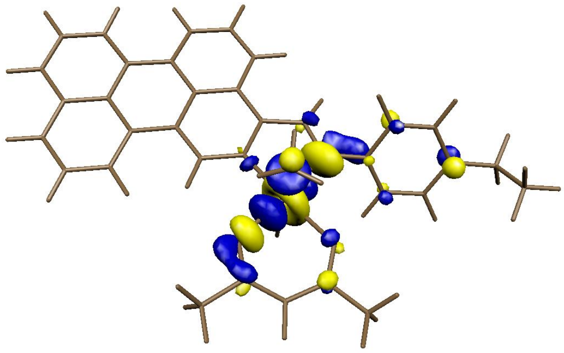
MO 144 (*HOMO*): -0.190 Ha
Per (82), imine (5), I (6)



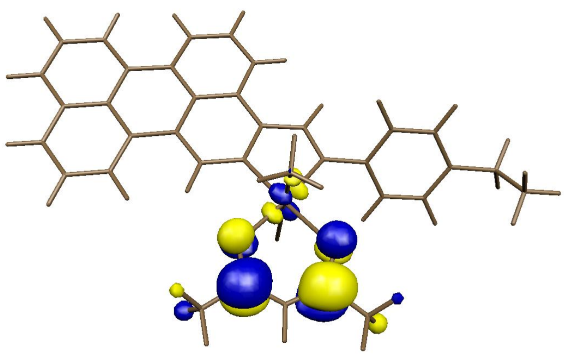
MO 145 (*LUMO*): -0.095 Ha
Per (66), imine (21), Ar (3), Pt (2), I (2)



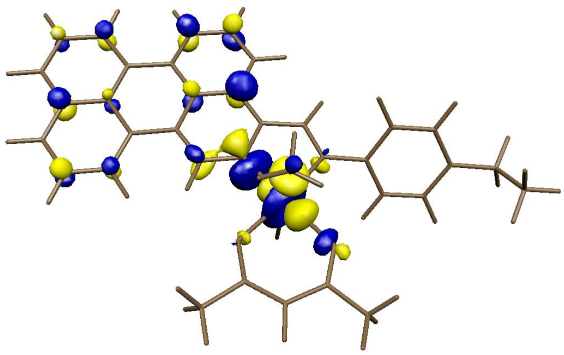
MO 146: -0.054 Ha
Per (55), imine (22), Pt (7), I (4), Me (2)



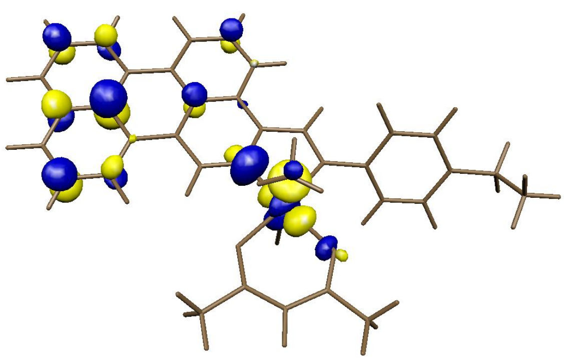
MO 147: -0.052 Ha
Pt (32), acac (13), Ar (11), imine (10), Me (10), Per (6), I (4)



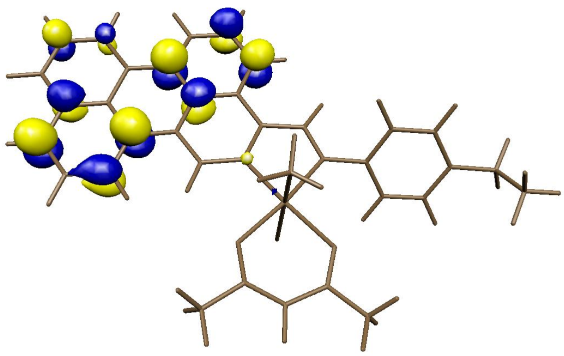
MO 148: -0.042 Ha
acac (86), Pt (4), Me (2)



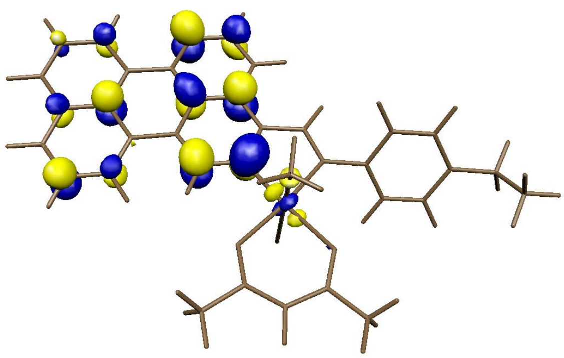
MO 149: -0.025 Ha
Per (55), Pt (20), Me (6), I (5), acac (2)



MO 150: -0.019 Ha
Per (67), Pt (12), Me (8), I (3), acac (2)



MO 151: -0.010 Ha
Per (92)



MO 153: -0.001 Ha
Per (89), Pt (2)

Fig. S7. Fluorescence decays in dichloromethane, at room temperature

Mono-exponential and bi-exponential fluorescence decay models were fitted to each decay. Eqn (1) describes the mono-exponential decay model:

$$I(t) = I_0 \cdot \exp(-t/\tau) \qquad (1)$$

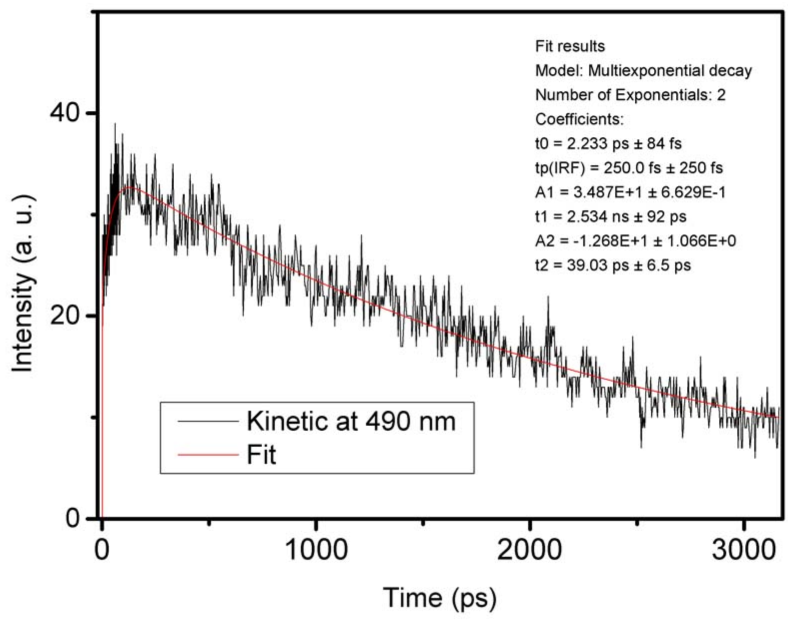
where I_0 is the relative intensity, t is the time and τ is the fluorescence lifetime, both expressed in ns. The bi-exponential decay model is expressed by Equation (2) as:

$$I(t) = A + B_1 \cdot \exp(-t/\tau_1) + B_2 \cdot \exp(-t/\tau_2) \qquad (2)$$

where B_1 and B_2 are the relative intensities associated with two lifetimes, τ_1 and τ_2, respectively.

Mono-exponential models are normally used to fit fluorescence decay. Bi-exponential fits may be more appropriate for samples containing non-linear decays. Fitting was done using FAST software from Edinburgh Instruments by a least-squares algorithm using a reconvolution approach. In this method, convolution of Equation (1) or (2) with the instrumental response function (IRF) is done prior to evaluating the goodness of fit with a weighted χ^2 parameter.

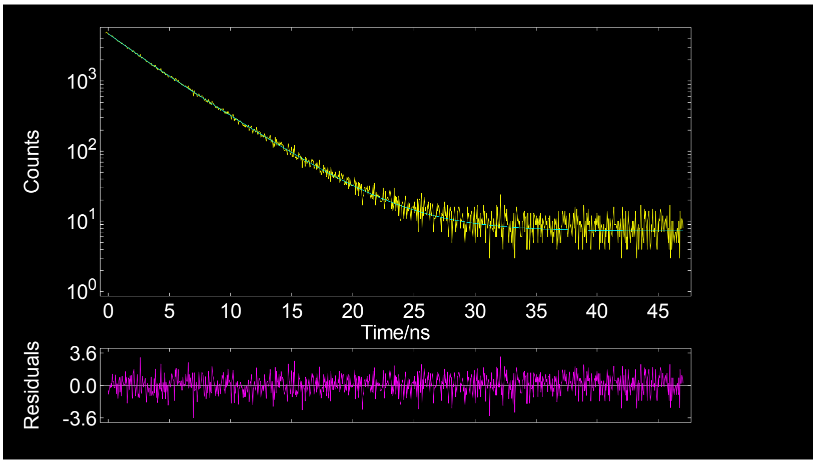
2



3

Param	Value/ns	Std. Dev./ns	Rel.%
τ1	2.14	0.21	12.95
τ2	4.00	0.05	87.05

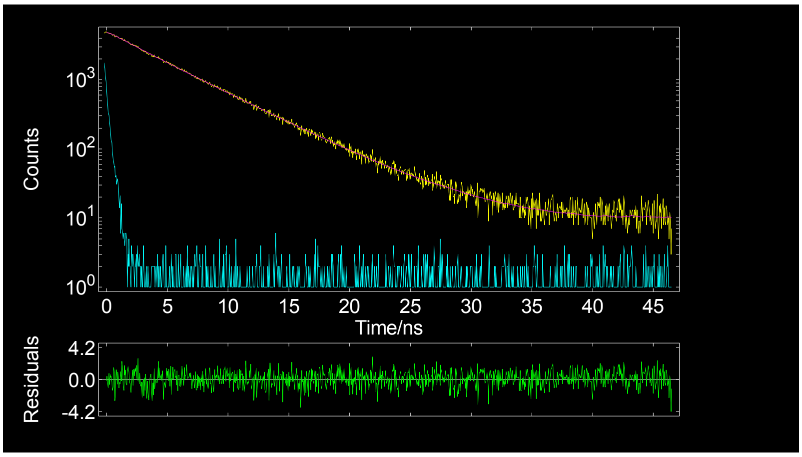
A 7.272
χ^2 1.051



4

Param	Value/ns	Std. Dev./ns	Rel.%
τ1	2.33	0.50	5.08
τ2	5.02	0.04	94.92

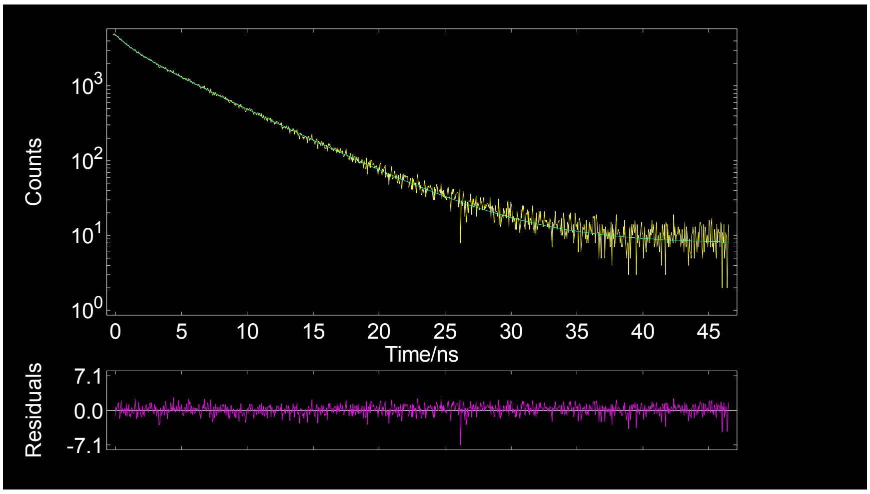
A 7.593
χ^2 1.182



5

Param	Value/ns	Std. Dev./ns	Rel.%
τ1	1.24	0.05	9.25
τ2	5.10	0.02	90.75

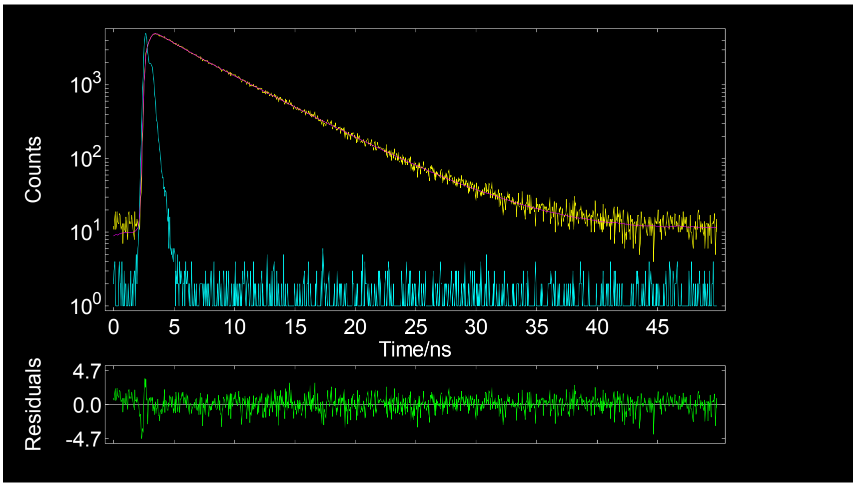
A 7.807
χ^2 1.131



6

Param	Value/ns	Std. Dev./ns	Rel.%
τ1	1.87	0.18	5.60
τ2	5.14	0.03	94.40

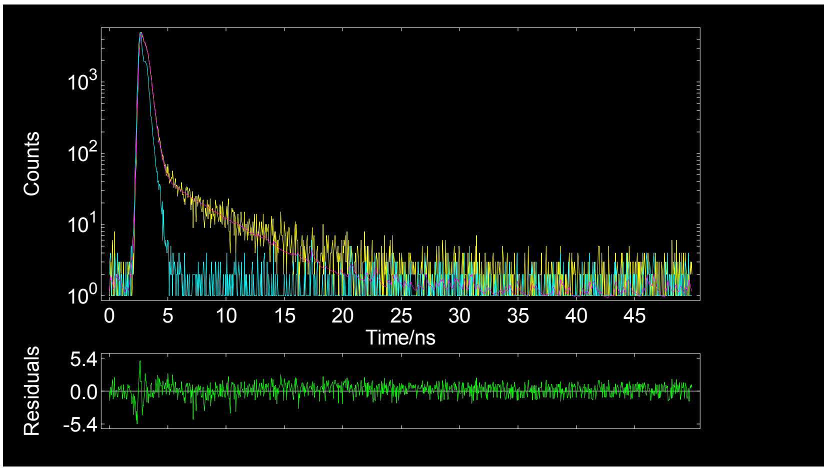
A 8.778
χ^2 1.246



7

Param	Value/ns	Std. Dev./ns	Rel.%
τ1	0.19	0.00	93.71
τ2	4.05	0.11	6.29

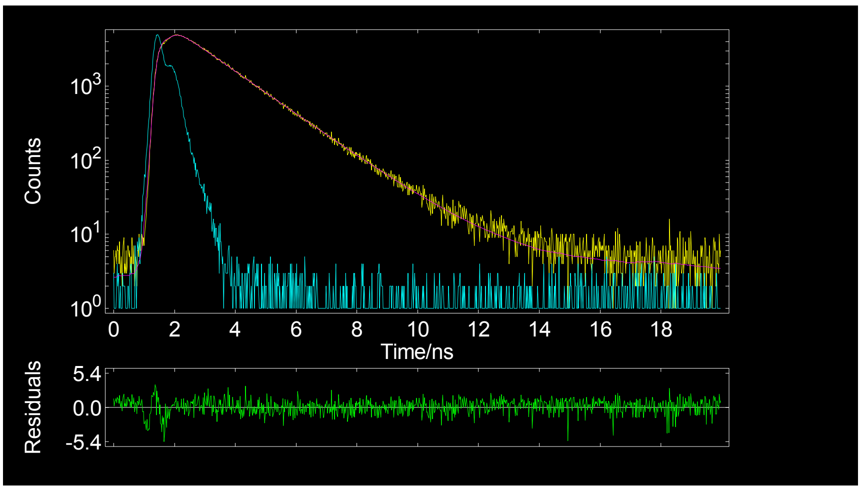
A 0.926
χ^2 1.201



8

Param	Value/ns	Std. Dev./ns	Rel.%
τ1	1.48	0.01	98.63
τ2	3.80	0.95	1.37

A 0.926
χ^2 1.201



9

Param	Value/ns	Std. Dev./ns	Rel.%
τ1	0.77	0.00	90.68
τ2	4.77	0.10	9.32

A 1.462

χ^2 1.262