

Dinuclear platinum(II) complexes with biphenyl-based bis-carbene ligands

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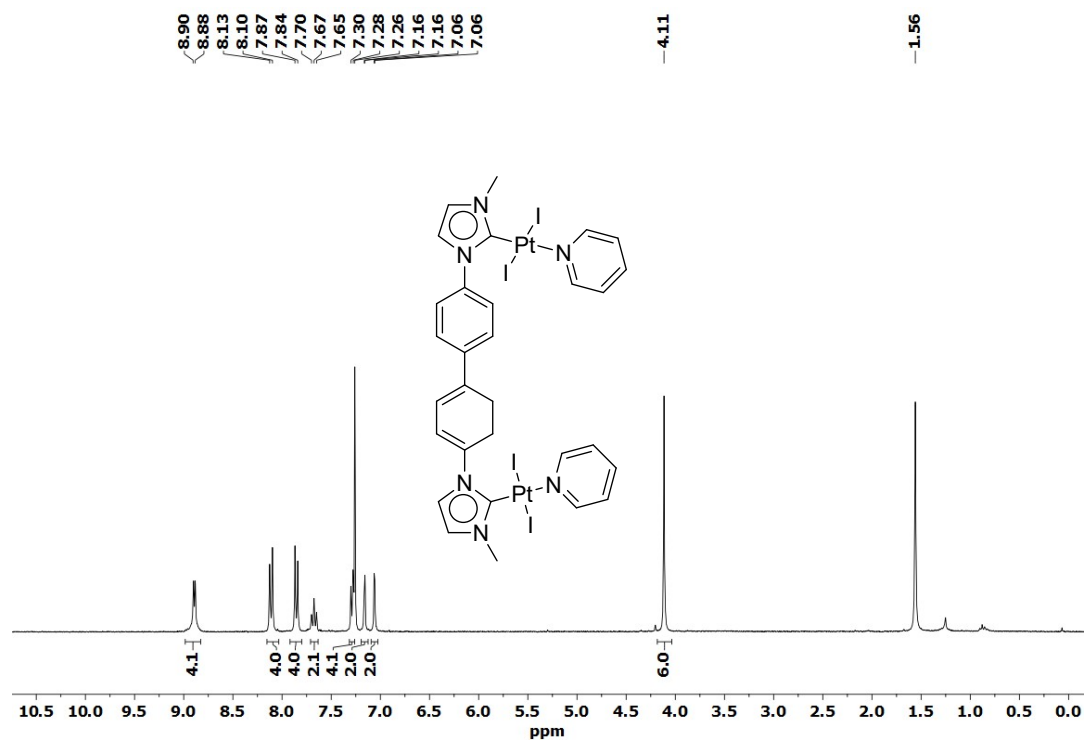


Figure S1. $^1\text{H NMR}$ spectrum of [2] in CDCl_3 ($\delta = 1.56$: H_2O from CDCl_3 solvent).

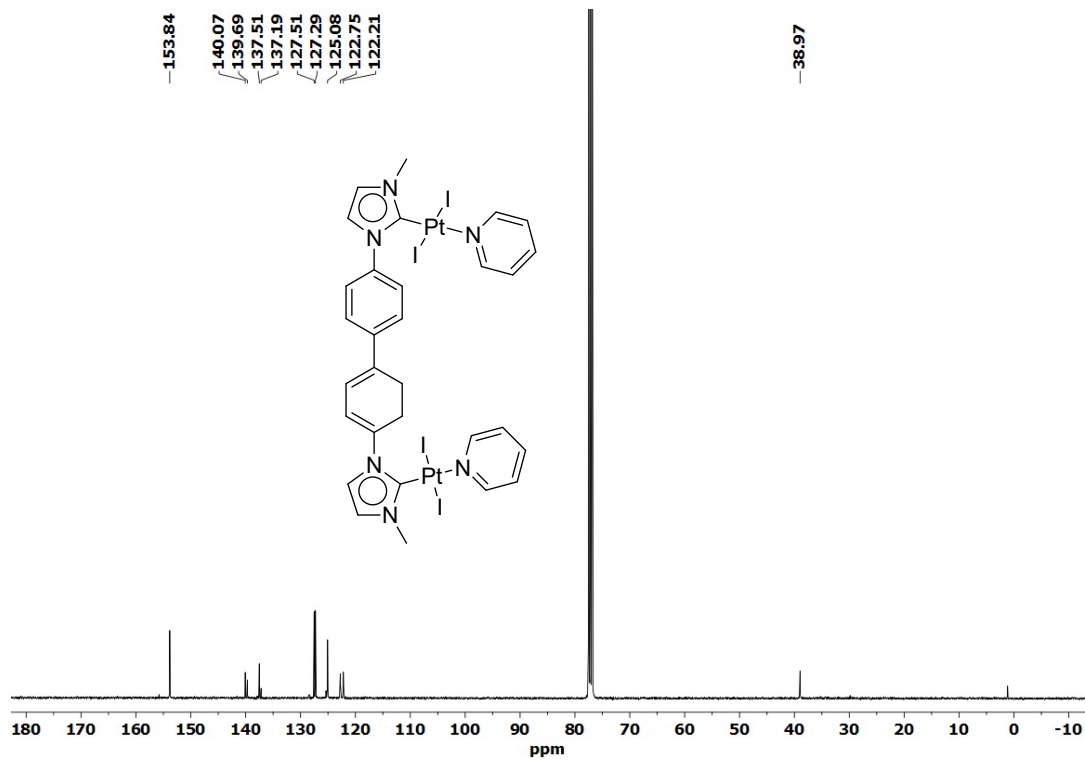


Figure S2. $^{13}\text{C}\{^1\text{H}\}$ NMR spectrum of [2] in CDCl_3 .

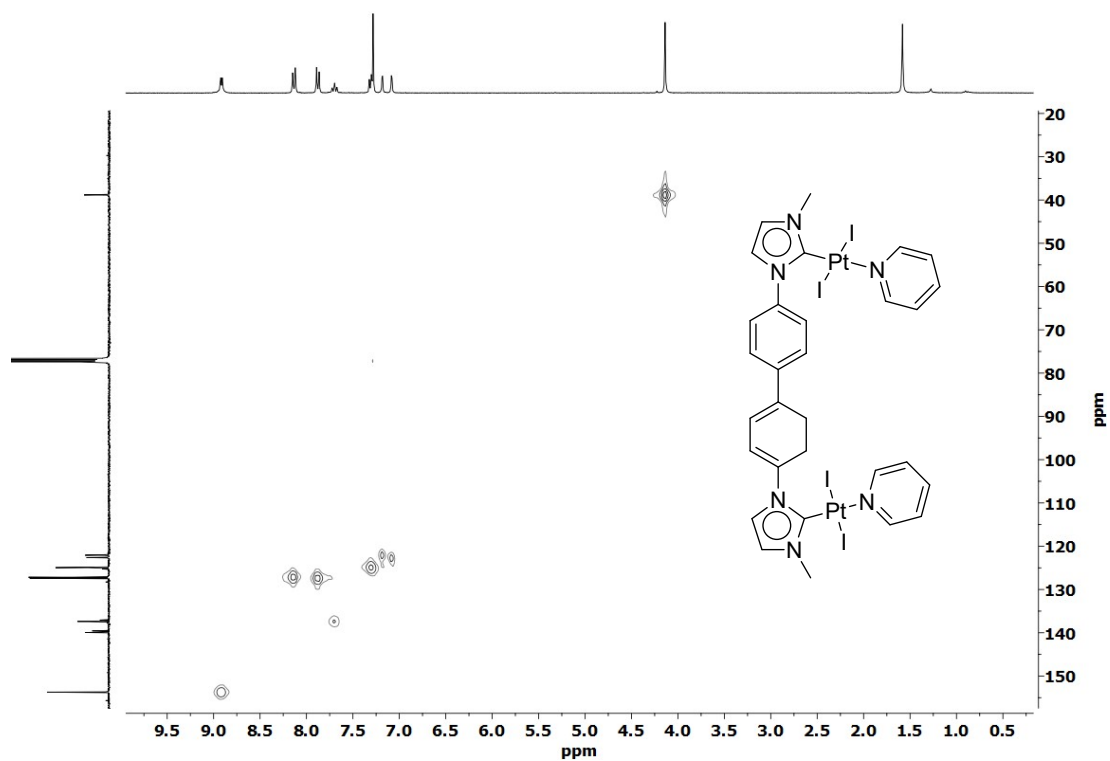


Figure S3. HMQC NMR spectrum of [2] in CDCl_3 .

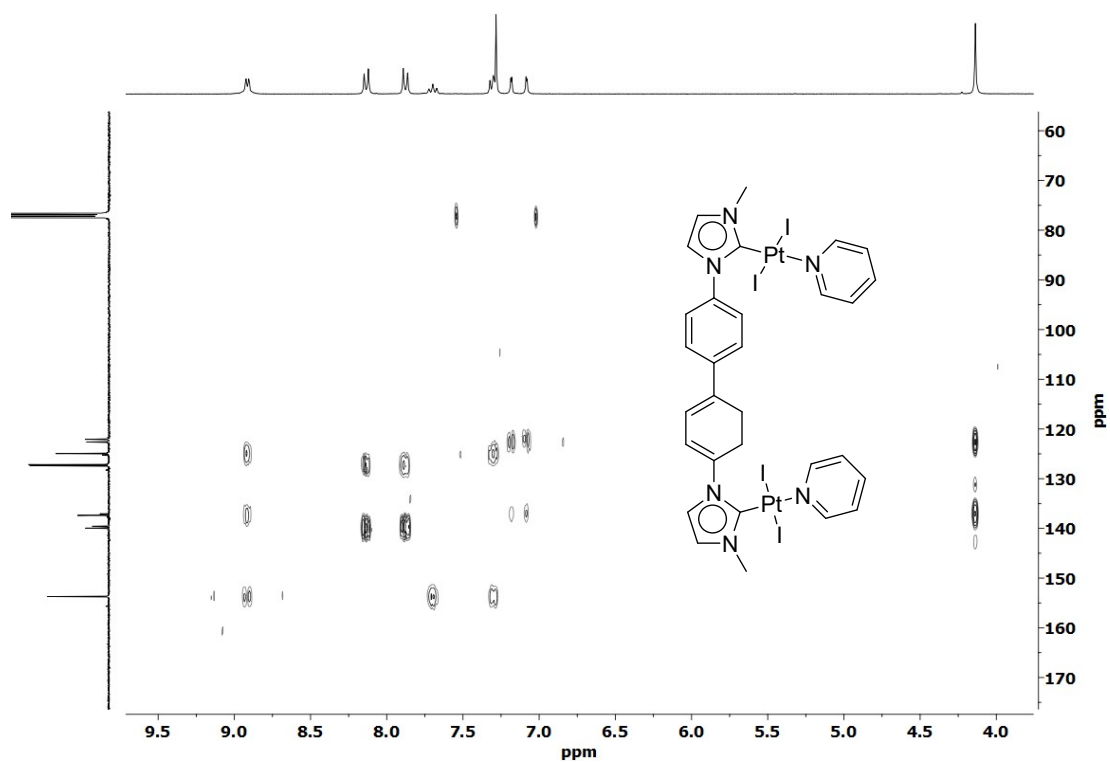


Figure S4. HMBC NMR spectrum of [2] in CDCl_3 (^{195}Pt - ^{13}C coupling at $\delta = 4.11$ ppm ^1H scale).

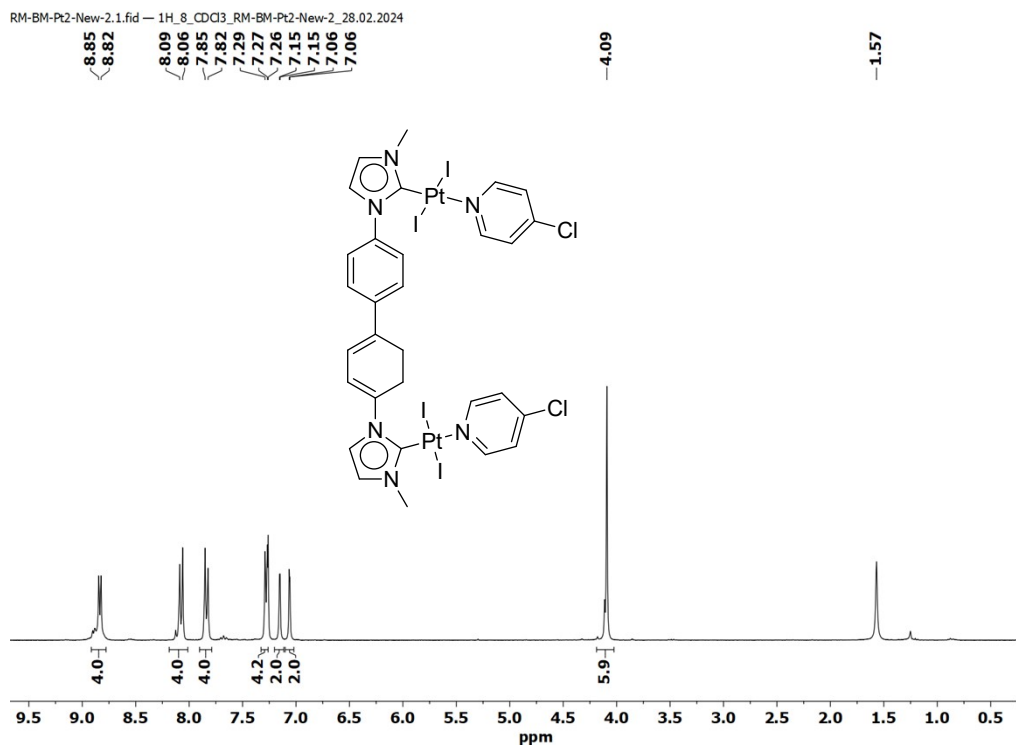


Figure S5. ^1H NMR spectrum of [3] in CDCl_3 ($\delta = 1.57$: H_2O from CDCl_3 solvent).

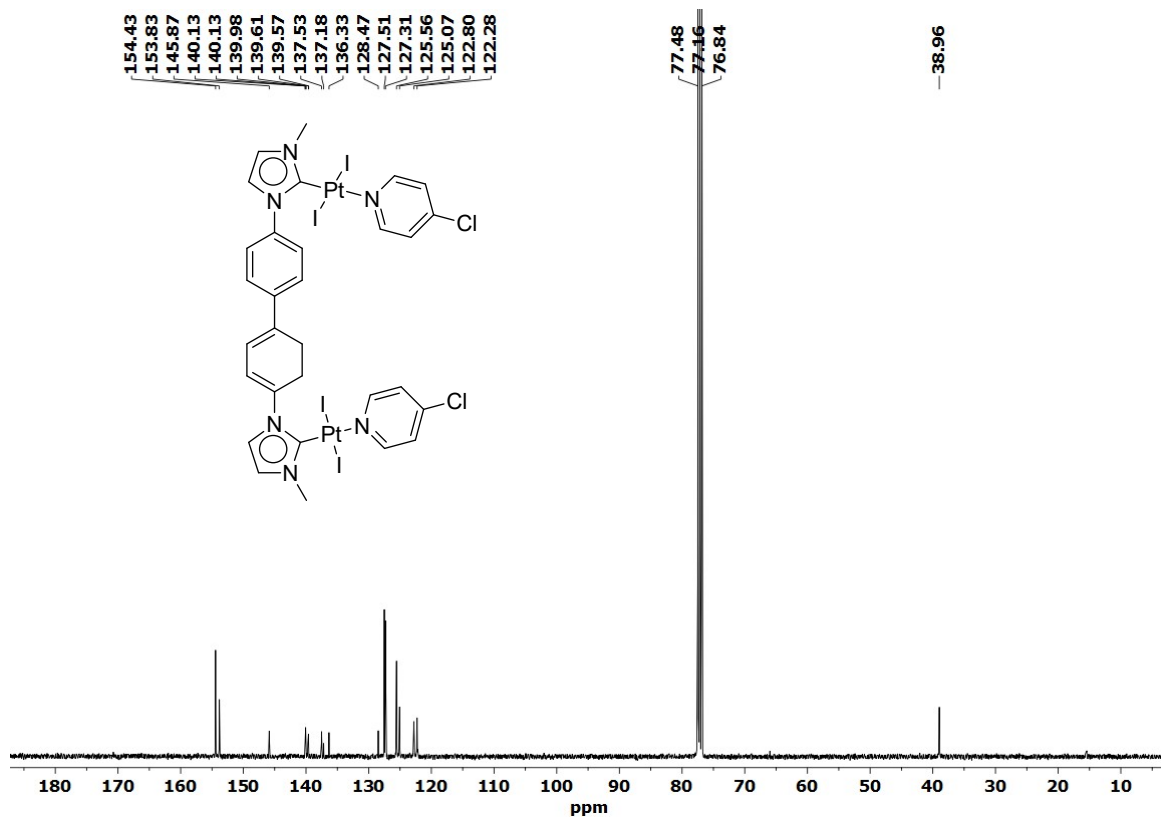


Figure S6. $^{13}\text{C}\{^1\text{H}\}$ NMR spectrum of [3] in CDCl_3 .

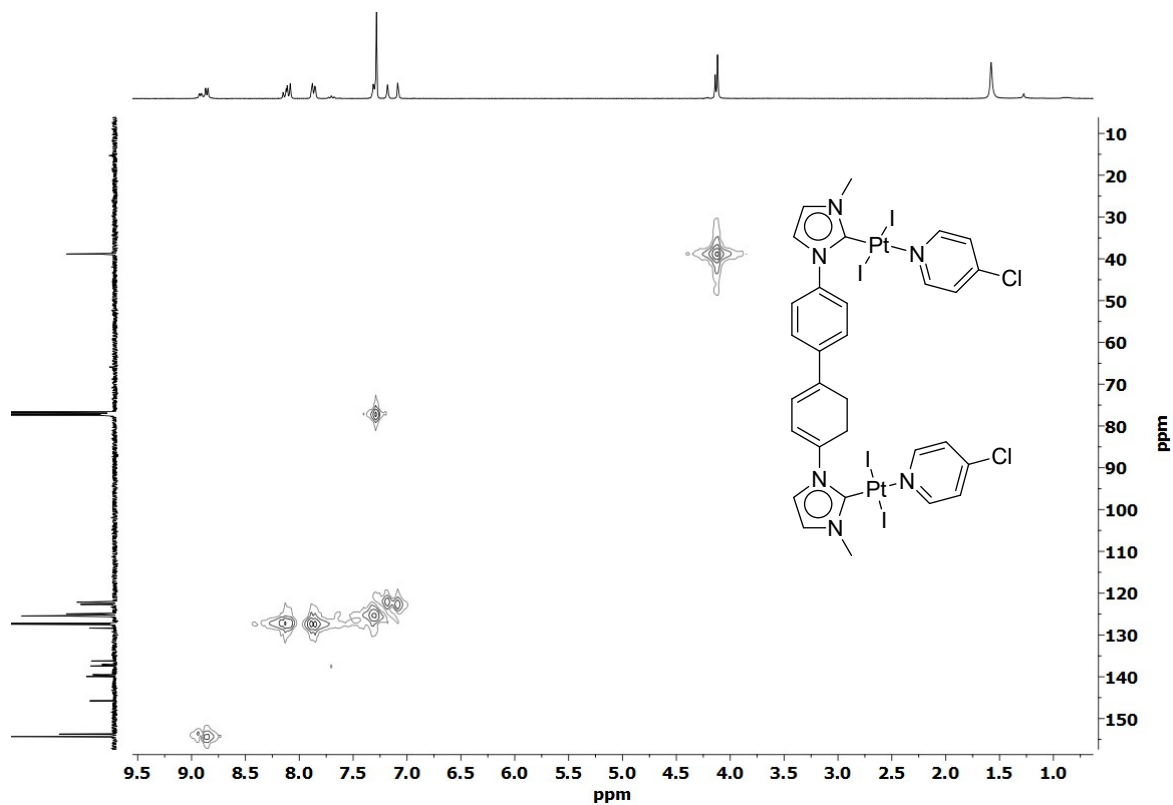


Figure S7. HSQC NMR spectrum of [3] in CDCl_3 .

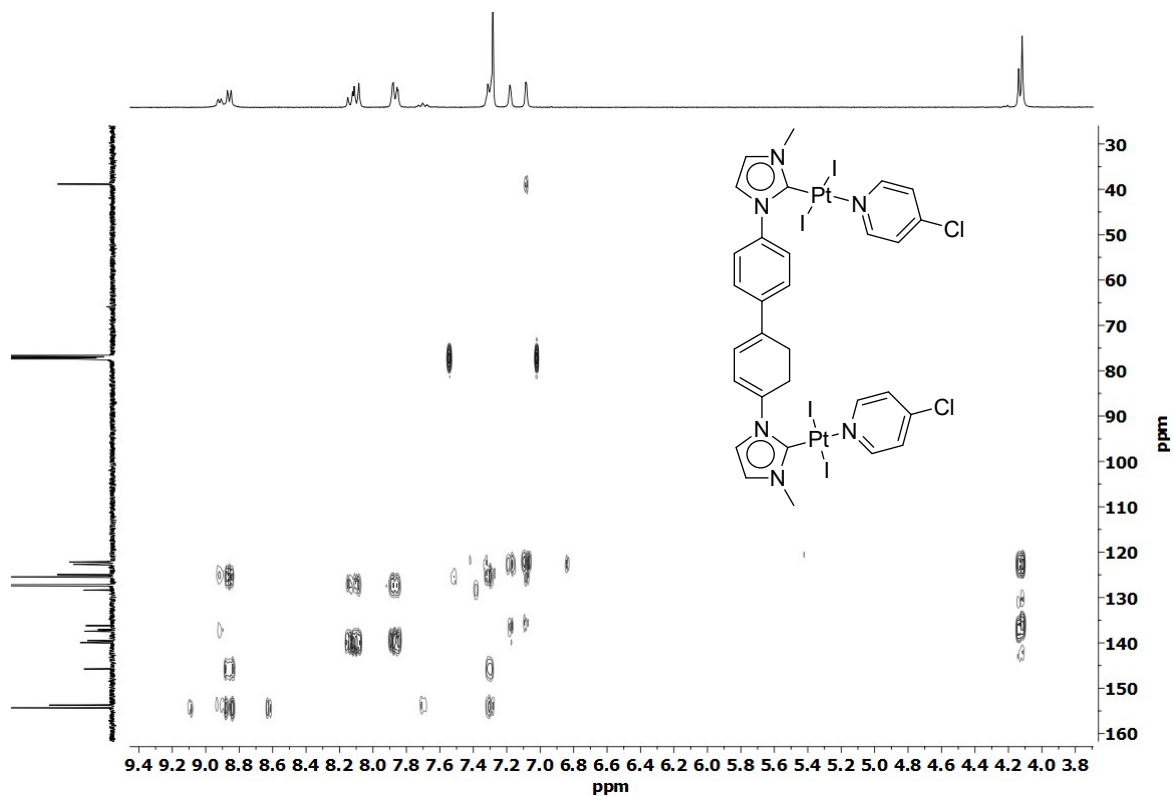


Figure S8. HMBC NMR spectrum of [3] in CDCl_3 .

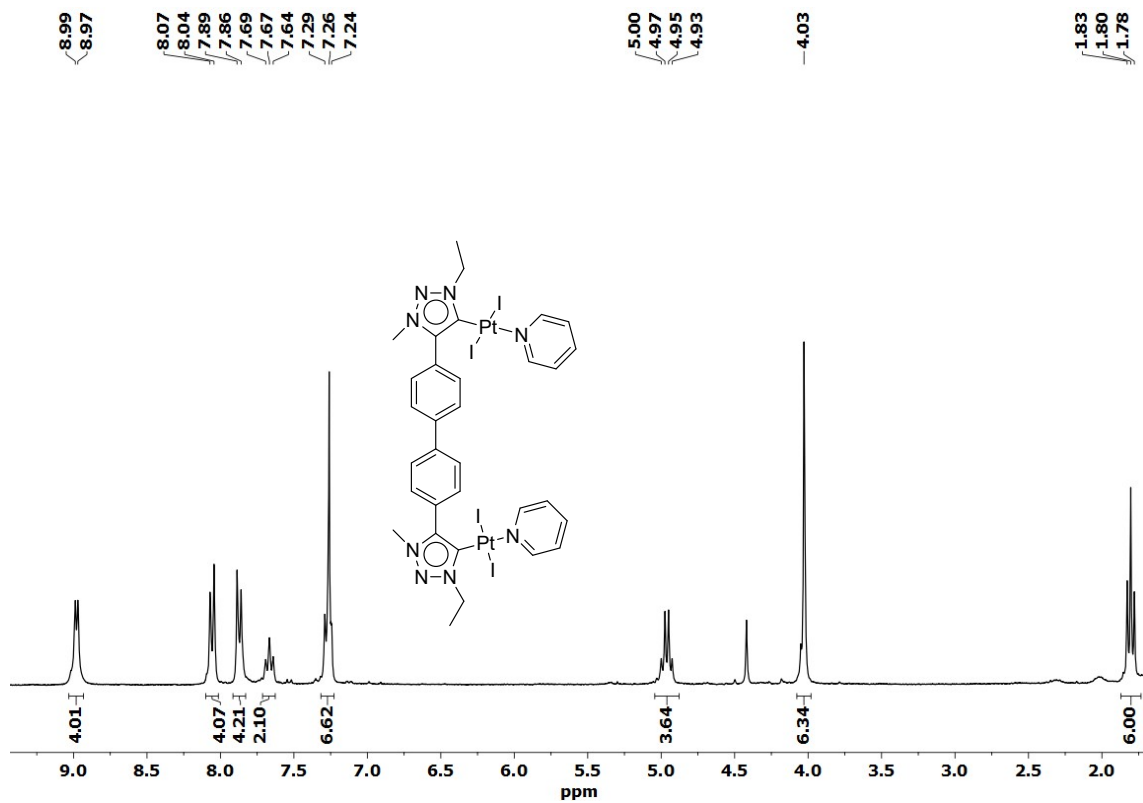


Figure S9. ^1H NMR spectrum of [5] in CDCl_3 .

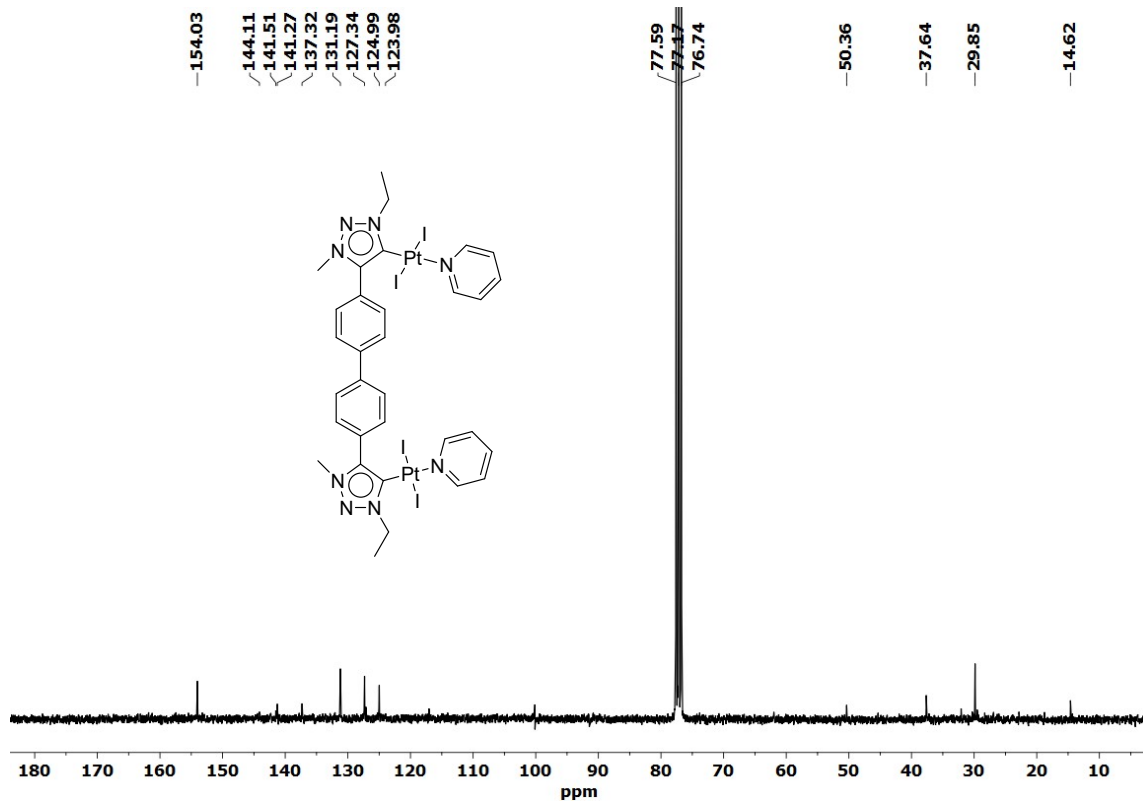


Figure S10. $^{13}\text{C}\{^1\text{H}\}$ NMR spectrum of [5] in CDCl_3 .

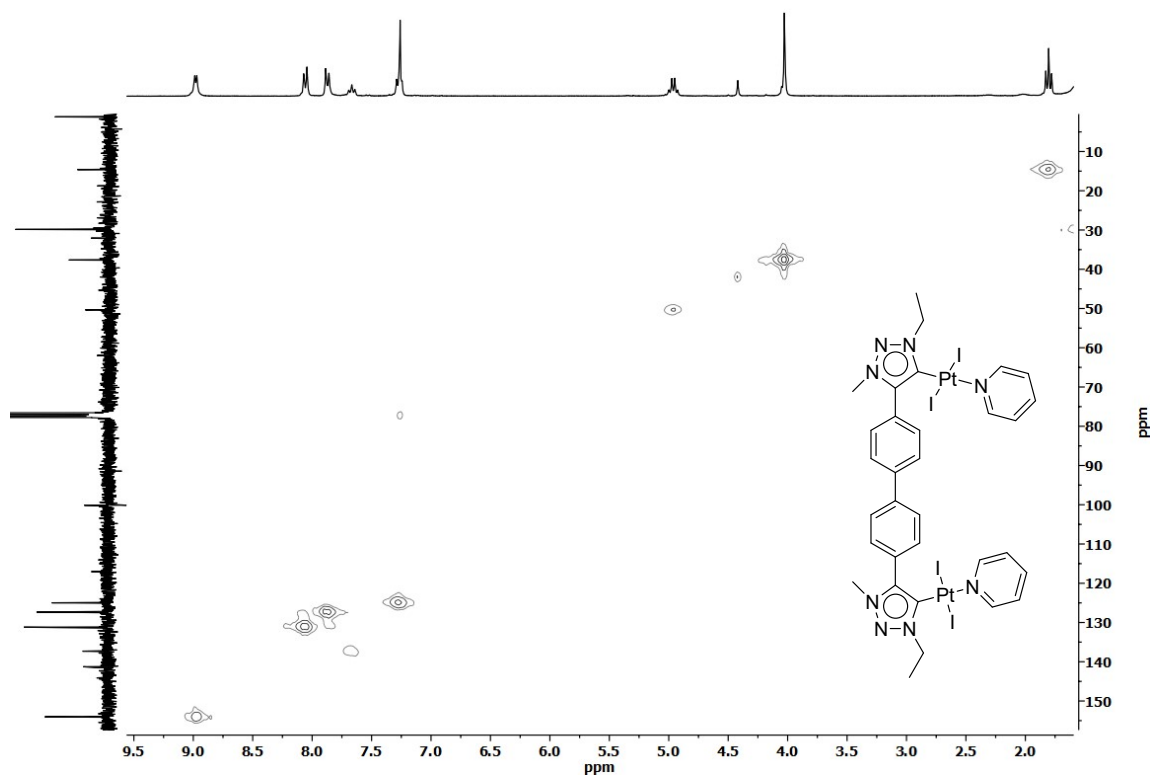


Figure S11. HMQC NMR spectrum of [5] in CDCl₃.

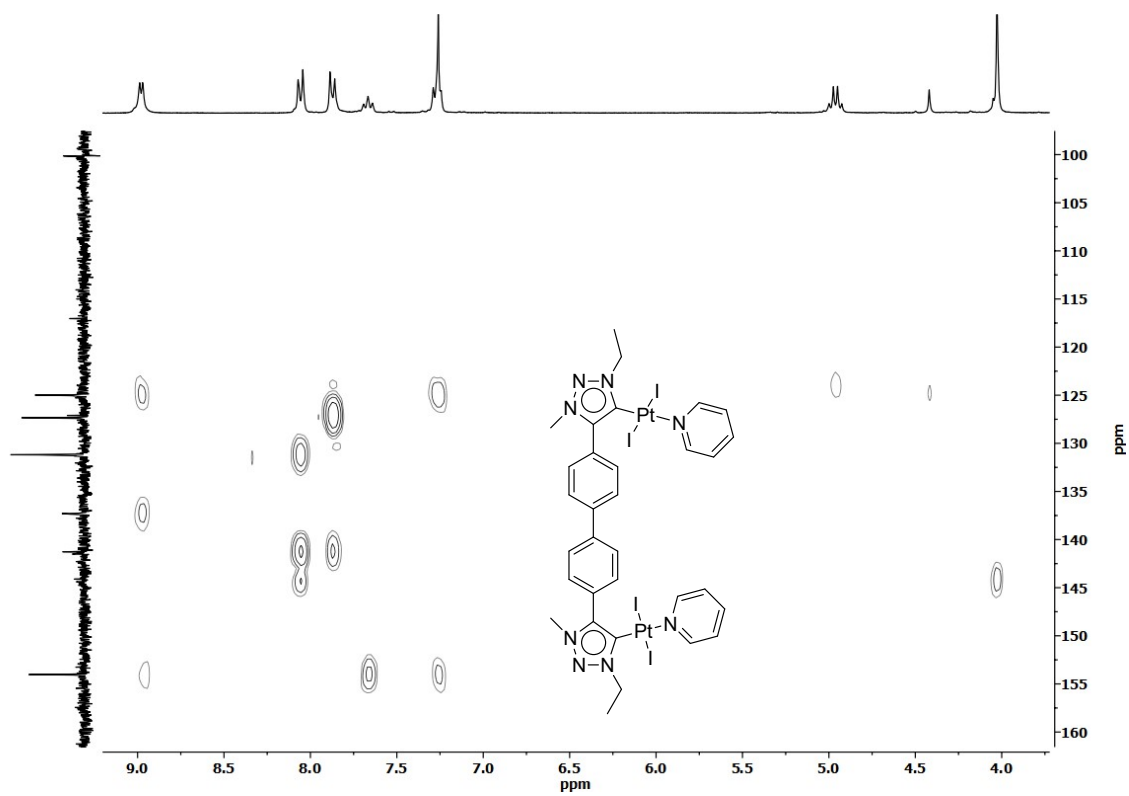


Figure S12. HMBC NMR spectrum of [5] in CDCl₃.

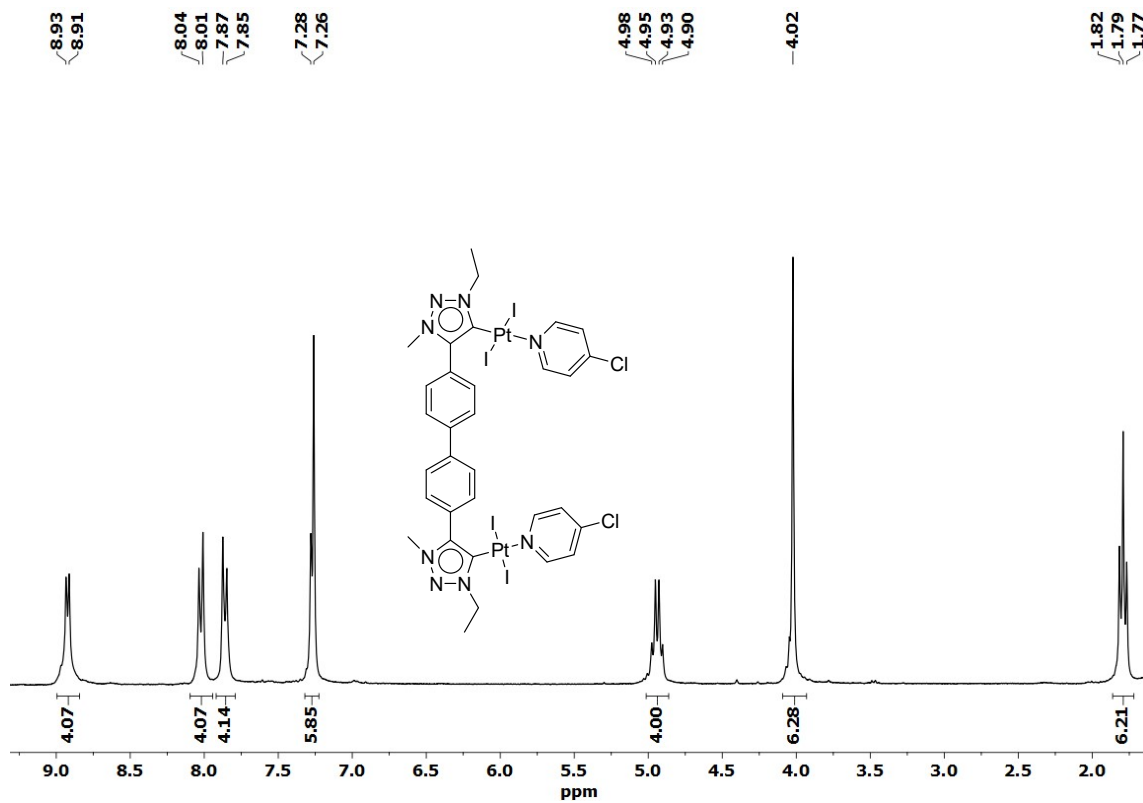


Figure S13. ^1H NMR spectrum of [6] in CDCl_3 .

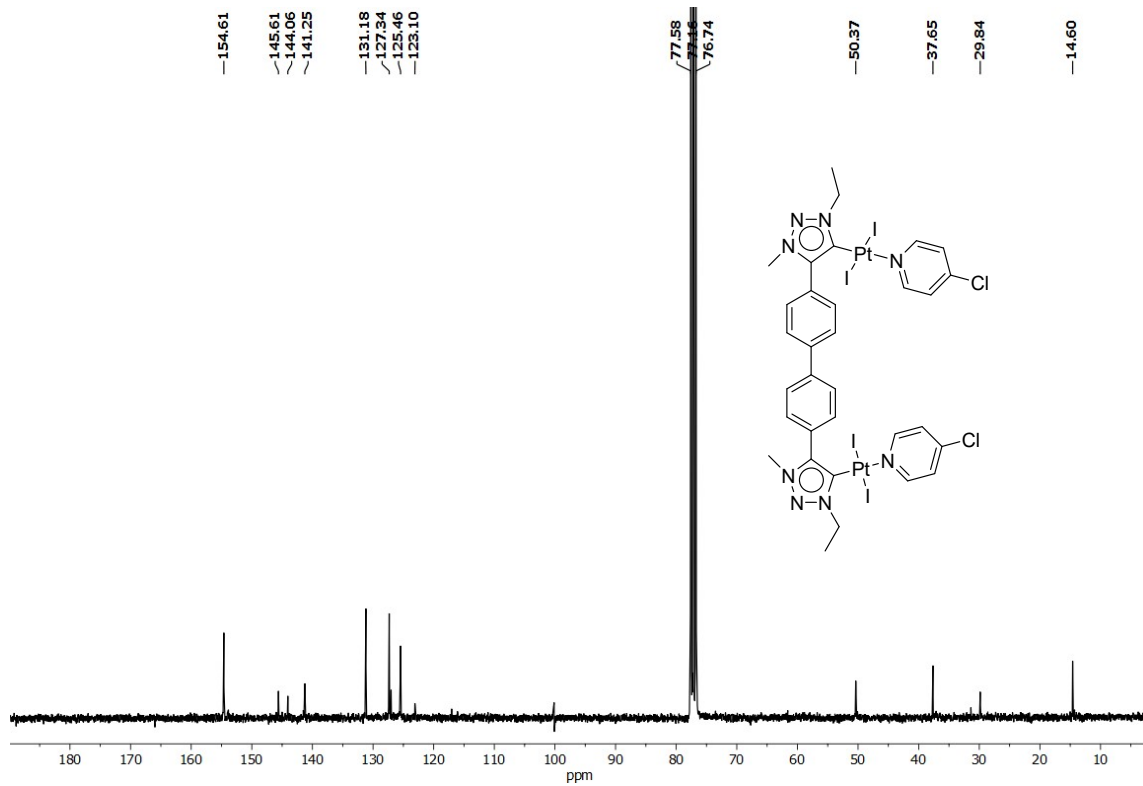


Figure S14. $^{13}\text{C}\{^1\text{H}\}$ NMR spectrum of [6] in CDCl_3 .

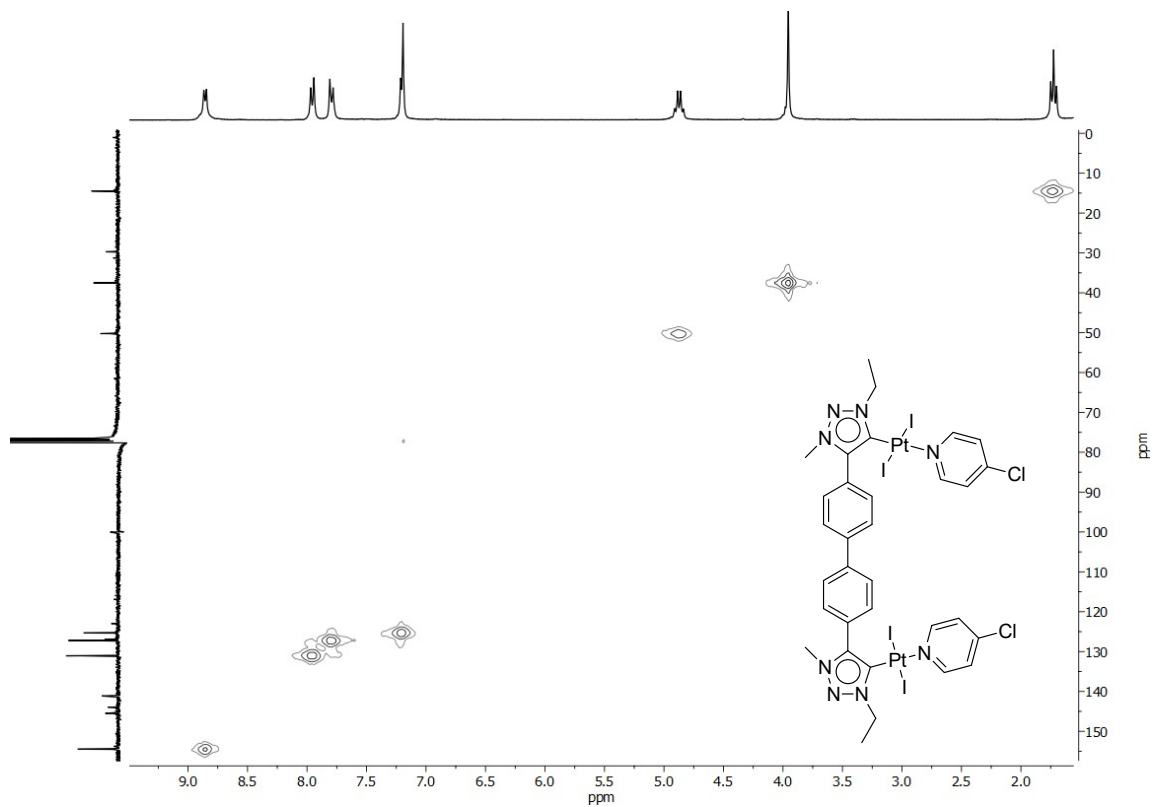


Figure S15. HMQC NMR spectrum of [6] in CDCl₃.

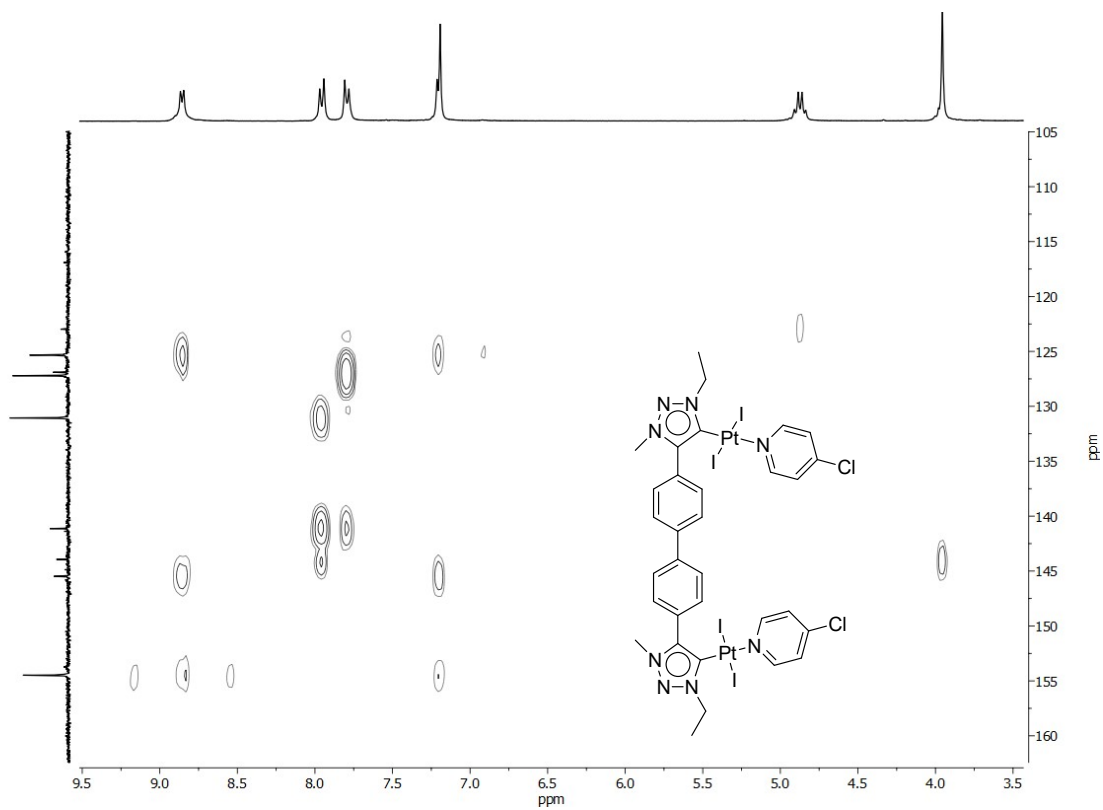


Figure S16. HMBC NMR spectrum of [6] in CDCl₃.

RM-CDCl3_Test_2.1.fid — 1H_CDCl3_RM-CDCl3_Test_2_26.02.2024

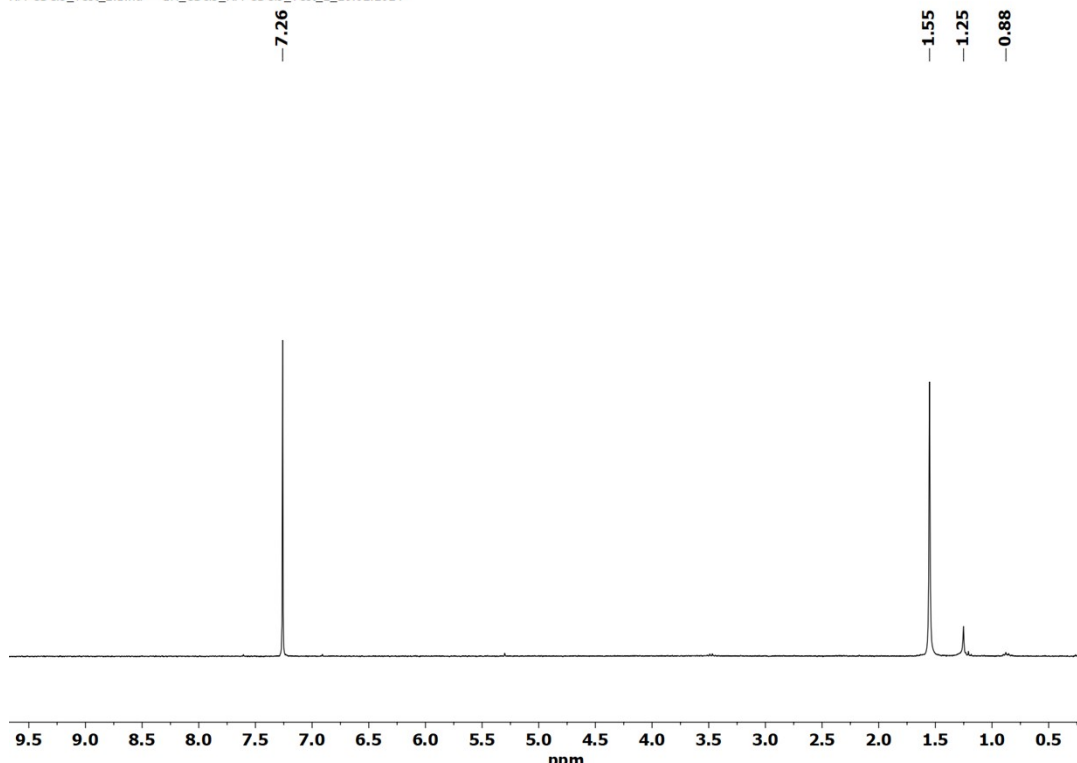


Figure S17. ¹H NMR spectrum of CDCl₃ ($\delta = 1.55$: H₂O from CDCl₃ solvent; very small humps at $\delta \sim 1.25$ and ~ 0.88 from the very small amount of grease in CDCl₃).

RM-BM-FP-2.10.fid — 1H-CDCl3-RM-BM-FP-2-28-03-2024

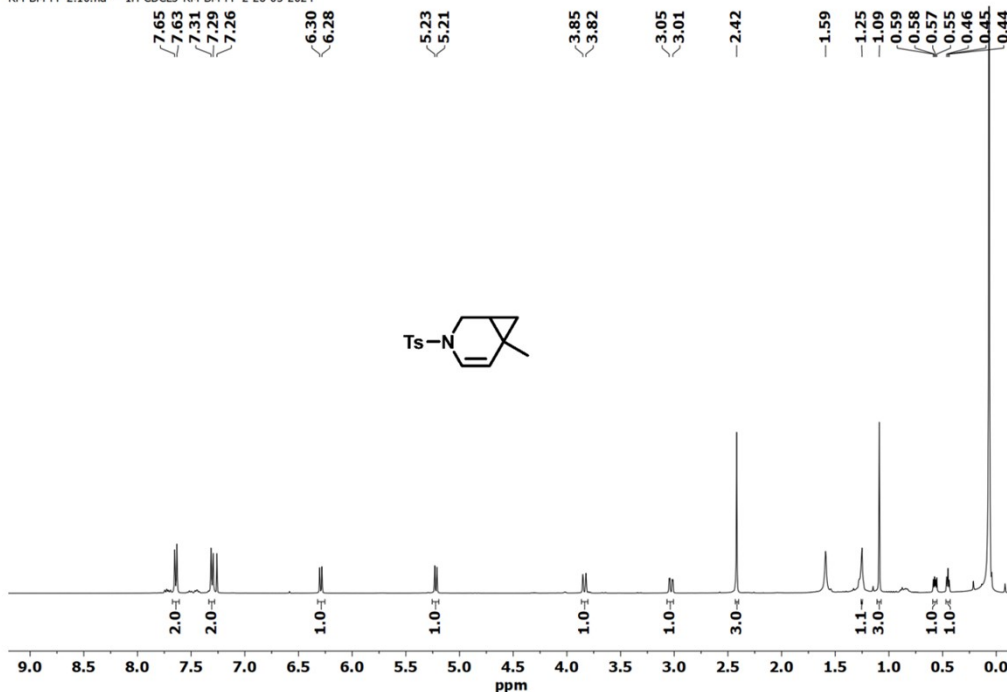


Figure S18. ¹H NMR spectrum of **8** in CDCl₃.

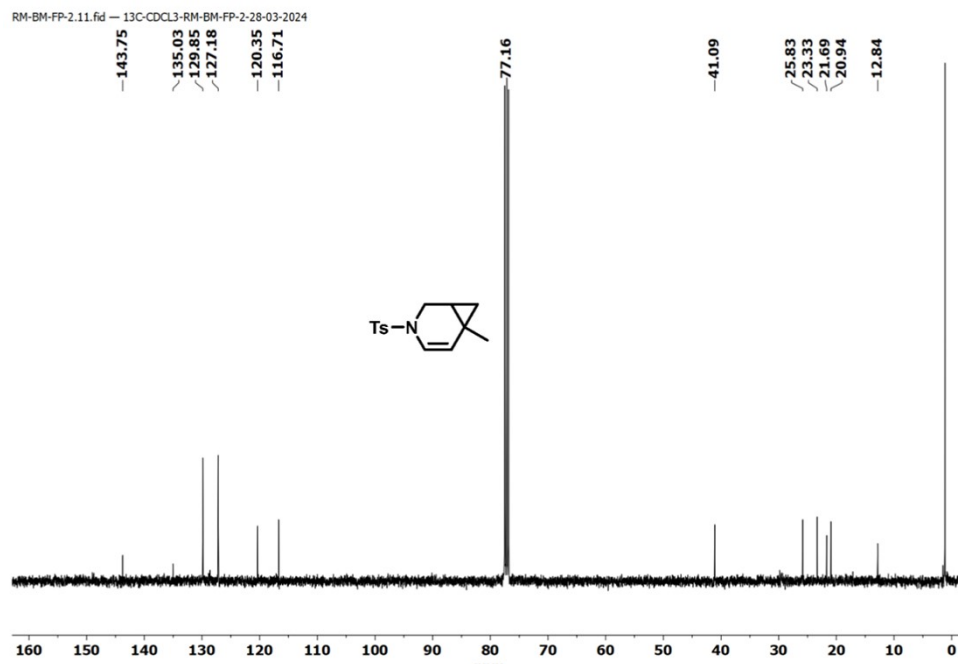


Figure S19. $^{13}\text{C}\{^1\text{H}\}$ NMR spectrum of **8** in CDCl_3 .

Table S1. Crystallographic details

	[2]
Chemical formula	$\text{C}_{30}\text{H}_{28}\text{I}_4\text{N}_6\text{Pt}_2$
M_r	1370.34
Crystal system	monoclinic
Space group	C2
a (Å)	14.136(3)
b (Å)	8.7735(16)
c (Å)	17.072(3)
α (°)	90.00
β (°)	97.292(7)
γ (°)	90.00
V (Å ³)	2100.2(7)
Z	2
Density (g cm ⁻³)	2.167
F(000)	1236.0
Radiation Type	Mo K_α
μ (mm ⁻¹)	9.618
Crystal size	0.24 × 0.13 × 0.12
Meas. Refl.	10224
Indep. Refl.	4463
Obsvd. $[I > 2\sigma(I)]$ refl.	4029
R_{int}	0.0615
R [$F^2 > 2\sigma(F^2)$]	0.0598
wR(F^2)	0.1602
S	1.055
$\Delta\rho_{\text{max}}$ (e Å ⁻³)	1.768
$\Delta\rho_{\text{min}}$ (e Å ⁻³)	-2.194

Table S2. Selected bond lengths in Å

Atoms	[2]
I1 – Pt1 – I2	177.98(7)
I1 – Pt1 – N3	88.4(5)
I2 – Pt1 – N3	89.7(5)
I1 – Pt1 – C1	93.4(5)
I2 – Pt1 – C1	88.6(5)
C1 – Pt1 – N3	176.5(8)
N1 – C1 – N2	104.6(19)

Table S3. Selected bond angles in °

Atoms	[2]
Pt1 – I1	2.6244(16)
Pt1 – I2	2.5894(17)
Pt1 – N3	2.090(19)
Pt1 – C1	2.04(2)
N1 – C1	1.34(3)
N2 – C1	1.29(3)