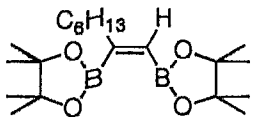
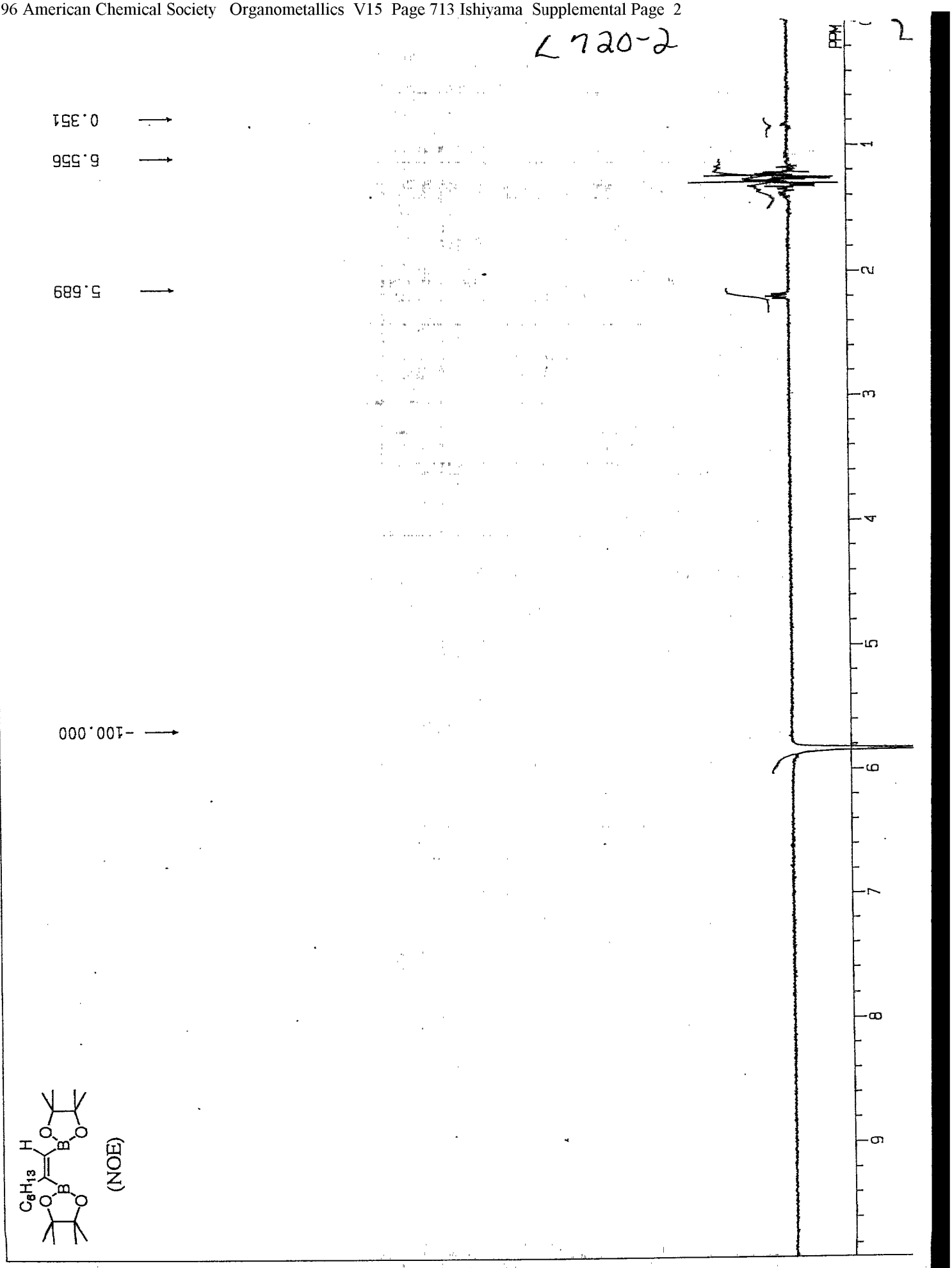
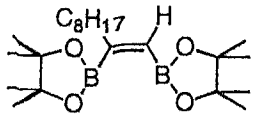
ORGANOMETALLICS
Organometallics, 1996, 15(2), 713-720, DOI:10.1021/om950672b



L 700-1

L720-2





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BF 0.25 Hz
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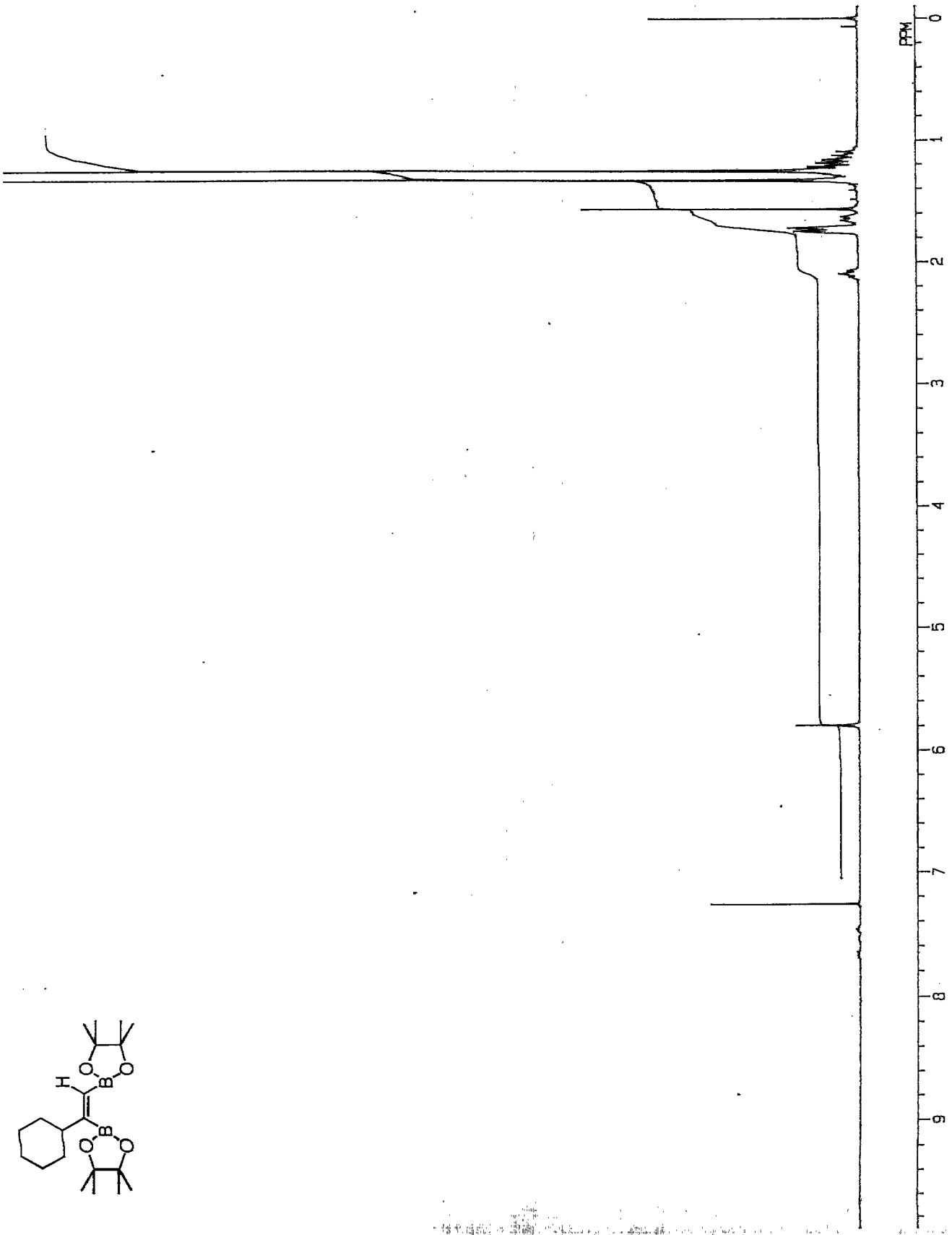
OPERATOR :

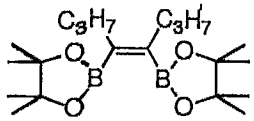
L726-3

PPM

3

L720-4





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PD 4.952 sec
PW1 5.7 us
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CTEMP 0.0 c
SLVNT CDCL3
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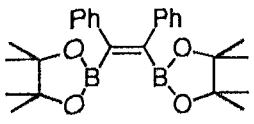
BF 0.25 Hz
RGAIN 18
OPERATOR : _____

Z-700-5



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CTEMP 0.0 c
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BF 0.25 Hz
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OPERATOR : _____

PPM
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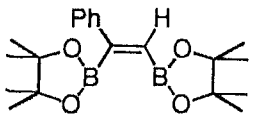
L720-6



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PD 4.952 sec
PW1 5.7 us
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CTEMP 0.0 c
SLVNT CDCL3
EXREF 0.00 ppm
BF 0.25 Hz
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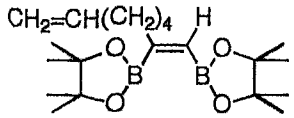
OPERATOR :

Z720-7



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PD 4.952 sec
PW1 5.7 us
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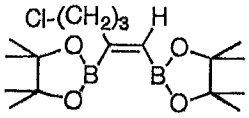
CTEMP 0.0 c
SLVNT CDCL3
EXREF 0.00 ppm
BF 0.25 Hz
RGAIN 17
OPERATOR : _____

L720-8



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PD 4.952 sec
PW1 5.7 us
IRNUC 1H
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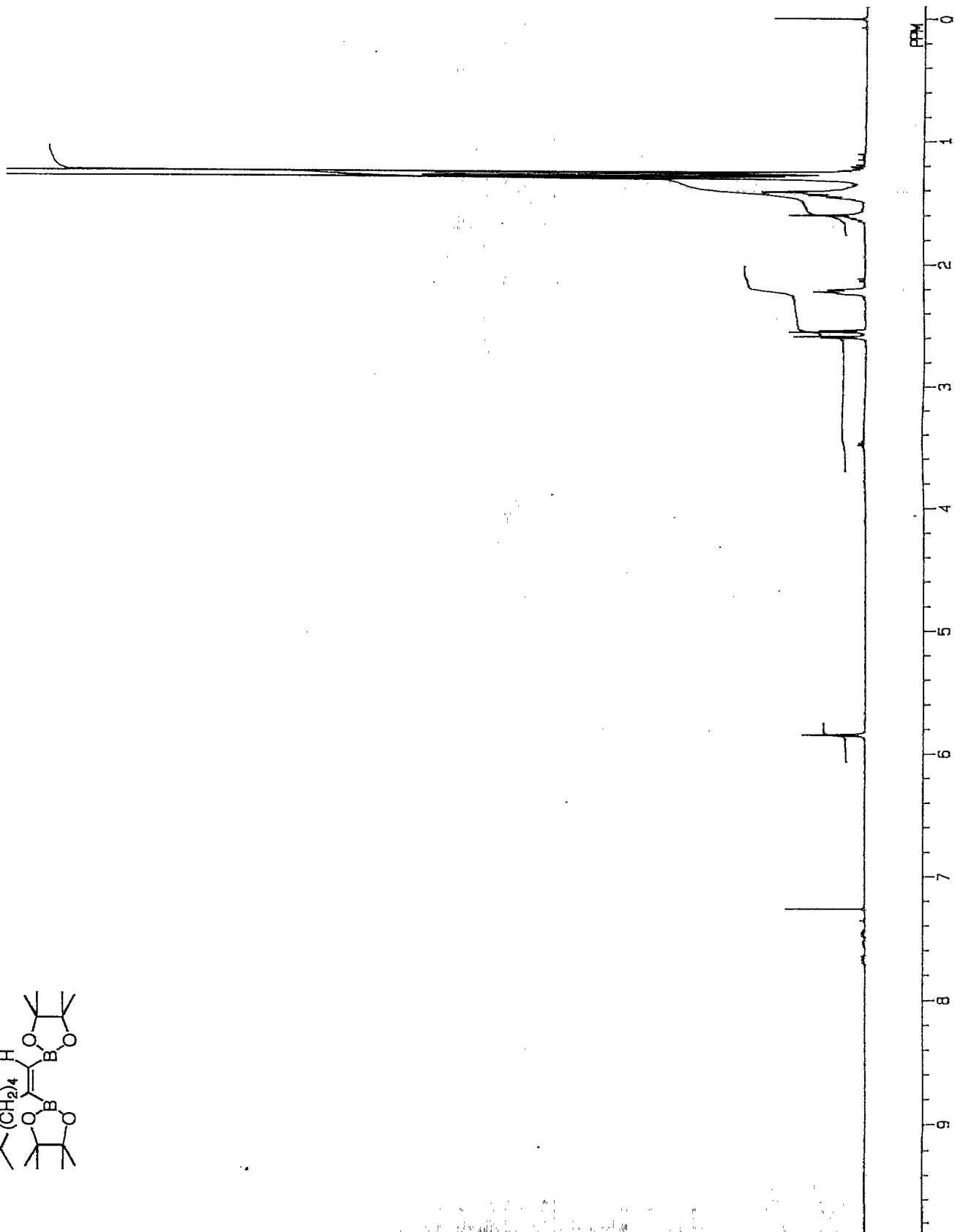
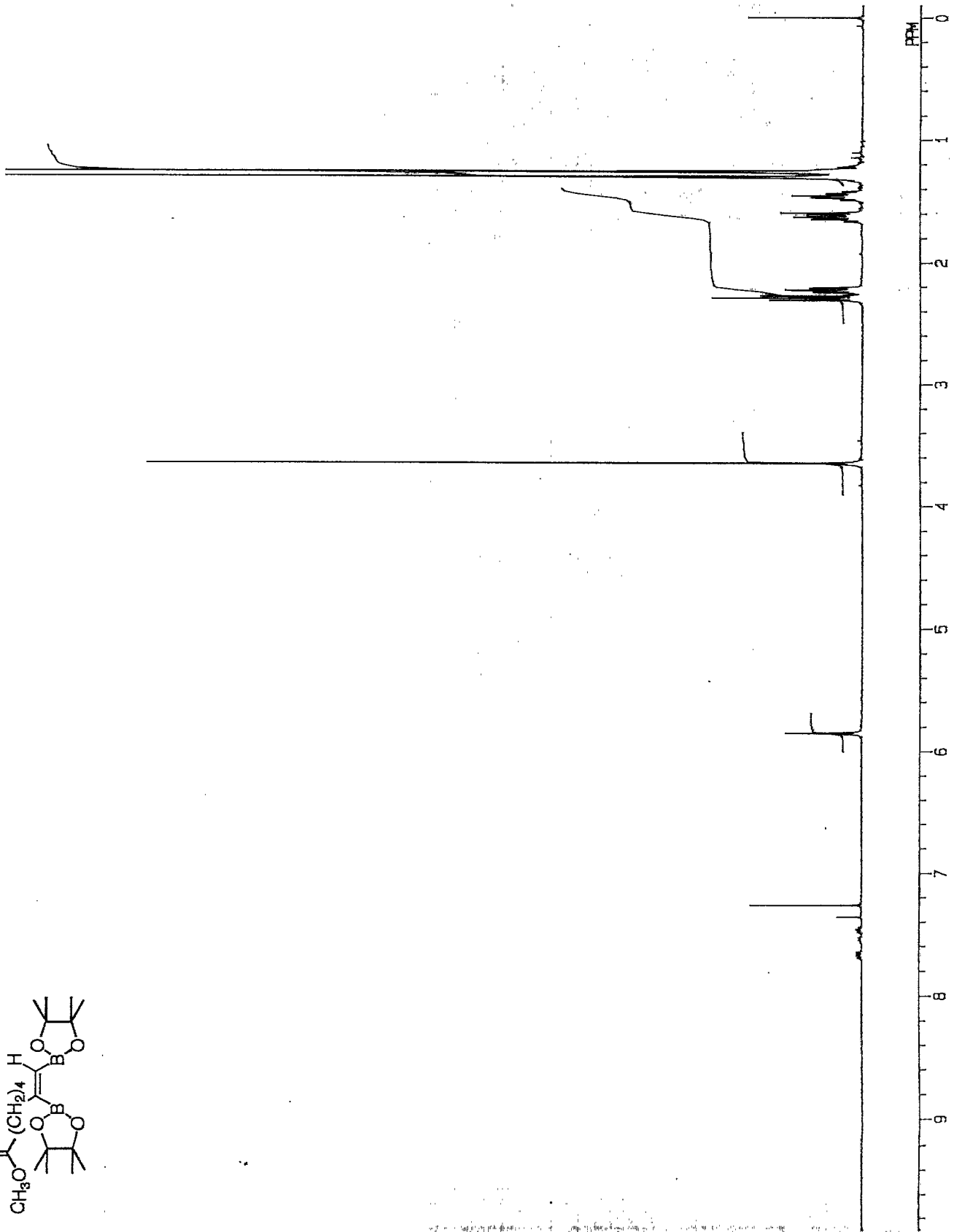
BF 0.25 Hz
RGAIN 17 .
OPERATOR : _____

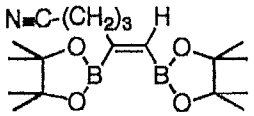
7720-9

L720-10



L720-11





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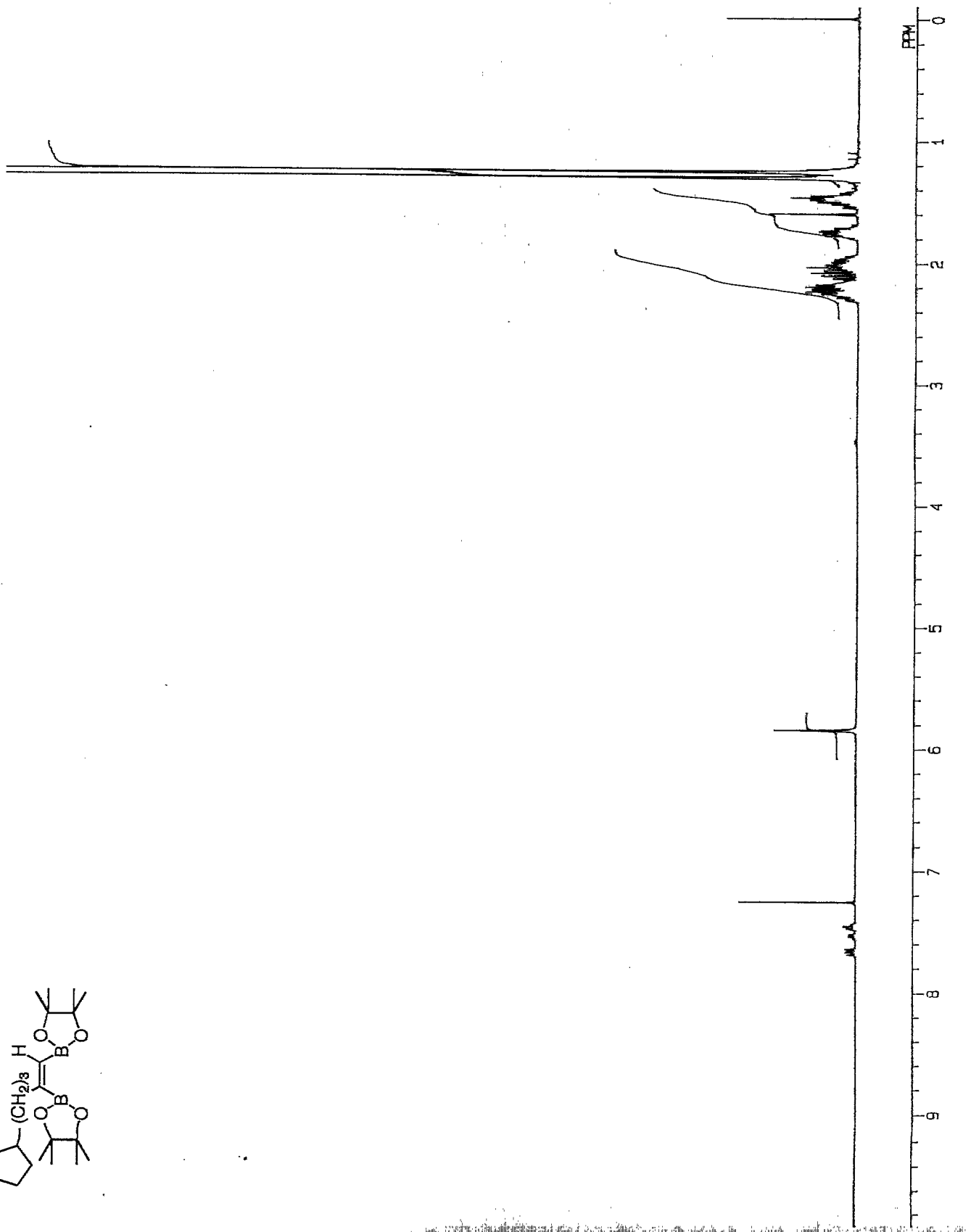
PD 4.952 sec
PW1 5.7 us
IRNUC 1H
CTEMP 0.0 c
SLVNT CDCL3
EXREF 0.00 ppm
BF 0.25 Hz
RGAIN 17
OPERATOR : _____

L720-12

L720-13 D



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X-Ray Diffraction Study of $Pt(BO_2C_2Me_4)_2(PPh_3)_2$ 5. A colorless single crystal of approximate dimensions of 0.2 x 0.2 x 0.5 mm was sealed in a glass capillary tube. Intensity data were collected on a Rigaku AFC5R four-circle diffractometer. Unit cell dimensions were obtained from a least-squares treatment of the setting angles of 25 reflections in the range $25.0 < 2\theta < 28.8°$. The cell dimensions suggested a triclinic cell. Diffraction data were collected at 23 °C in the range $5.0 < 2\theta < 50.0$ ° using $\omega - 2\theta$ scan technique at a scan rate of 8° min^{-1} in omega. Three standard reflections, monitored at every 150 reflection measurements, showed no significant variation in their intensities. The data was corrected for Lorentz and polarization effects and for absorption (empirical based on four azimuthal scans). Of the 8400 unique reflections measured, 7447 were classed as observed ($I > 3\sigma(I)$) and these were used for the solution and refinement of the structure. Based on a statistical analysis of intensity distribution, and the successful solution and refinement of the structure, the space group was determined to be $P\bar{1}$ (No. 2).

All calculations were performed with the TEXSAN Crystal Structure Analysis Package provided by Rigaku Corp., Tokyo, Japan. The scattering factors were taken from International Tables for X-ray Crystallography. All non-hydrogen atoms of the platinum complex were located by a heavy-atom Patterson method (PATTY) and subsequent Fourier syntheses (DIRDIF92). The difference map at this stage clearly showed four peaks (2.0–1.4 e $Å^{-3}$) around a center of symmetry, which best fit in with a toluene molecule used in recrystallization. The presence of toluene (0.5 equivalent of the complex) in the crystal was also supported by ^1H NMR spectroscopy. With anisotropic thermal parameters for all non-hydrogen atoms of the platinum complex and isotropic thermal parameters for the toluene carbons, refinement converged at $R = 0.038$. At this stage, however, the structure of toluene was rather distorted. Therefore, an ideal model of toluene molecule was introduced in the most probable orientation and included in further least-squares calculations. The positions of toluene carbons were fixed but the isotropic thermal parameters were refined. This model converged at $R = 0.039$. All hydrogen atoms of the platinum complex were successfully located by difference Fourier methods with electron densities in the range 0.706–0.403 e $Å^{-3}$. The hydrogen atoms were placed at idealized positions (d(C–H) = 0.95 Å) using isotropic thermal parameters ($B_{iso} = 1.2B_{bonded\ atom}$) and were included in the final cycles of calculation without refinement of their parameters. The function minimized in least-squares was $\Sigma w(|F_o| - |F_c|)^2$ ($w = 1/[\sigma^2(F_o)]$). The final R index was 0.031 (R_w = 0.037, GOF = 2.11). $R = \Sigma||F_o| - |F_c||/\Sigma|F_o|$ and $R_w = [\Sigma w(|F_o| - |F_c|)^2/\Sigma w|F_o|^2]^{1/2}$. GOF $= [\Sigma w(|F_o| - |F_c|)^2/(N_o - N_p)]^{1/2}$, where N_o is the number of observed data and N_p is the number of parameters varied.

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Table S-I. Crystal Data for Complex **5**

formula	$C_{48}H_{54}B_2P_2Pt \cdot 0.5(C_7H_8)$
fw	1019.68
habit	prismatic
temp, K	296
crystal system	triclinic
space group	$P\bar{1}$ (No. 2)
a, Å	13.245(3)
b, Å	15.761(2)
c, Å	13.032(2)
α, deg	92.48(1)
β, deg	112.49(2)
γ, deg	72.55(1)
V, Å^3	2390.0(8)
Z	2
d_{calcd}, g cm^{-3}	1.417
$F(000)$	1034
crystal size, mm	0.2 x 0.2 x 0.5
μ(Mo Kα), cm^{-1}	30.34
radiation	Mo Kα (λ = 0.71069 Å)
diffractometer	Rigaku AFC5R
monochromator	graphite
data collected	$+h, \pm k, \pm l$
scan type	ω–2θ
scan range	0.94 + 0.35 tan θ
2θ range, deg	5.0–50.0
scan speed, deg min^{-1}	8, fixed
absorption correction	empirical
min and max transmission factors	0.698, 1.000
no. of reflections collected	8795
no. of unique reflections	8400 (R_{int} = 0.062)
no. of reflections used	7447 ($I \geq 3\sigma(I)$)
no. of variables	518
R	0.032
R_w	0.037
GOF	2.81
max shift / error in final cycle	0.01
max and min peak, e Å^{-3}	1.26, –1.35 (near Pt)

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Table S-III. Hydrogen Atom Positional Parameters for Complex **5**

atom	*x*	*y*	*z*
H(C1a)	0.5283	0.2405	0.2099
H(C1b)	0.4313	0.2282	0.1020
H(C1c)	0.4222	0.3216	0.1477
H(C3a)	0.4842	0.2721	0.3899
H(C3b)	0.3786	0.3522	0.3234
H(C3c)	0.3631	0.2770	0.3833
H(C4a)	0.4338	0.0213	0.1793
H(C4b)	0.3752	0.1061	0.0969
H(C4c)	0.5057	0.0800	0.1695
H(C6a)	0.4948	0.0351	0.3851
H(C6b)	0.5688	0.0948	0.3846
H(C6c)	0.4738	0.1282	0.4317
H(C7a)	0.0027	0.4235	0.4546
H(C7b)	–0.0432	0.3420	0.4286
H(C7c)	0.0195	0.3598	0.5512
H(C9a)	0.2373	0.3351	0.6247
H(C9b)	0.2993	0.3055	0.5435
H(C9c)	0.2138	0.4008	0.5271
H(C10a)	0.1257	0.1946	0.6375
H(C10b)	0.0137	0.2124	0.5314
H(C10c)	0.1019	0.1175	0.5632
H(C12a)	0.2877	0.0858	0.5390
H(C12b)	0.3177	0.1610	0.4951
H(C12c)	0.3178	0.1610	0.6142
H(C14)	0.1189	0.0573	–0.1153
H(C15)	0.2810	–0.0013	–0.1620
H(C16)	0.3912	0.0913	–0.1642
H(C17)	0.3411	0.2391	–0.1208
H(C18)	0.1843	0.2956	–0.0661
H(C20)	–0.0928	0.3994	0.0024
H(C21)	–0.1623	0.5492	–0.0768
H(C22)	–0.1555	0.5791	–0.2474

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H(C23)	–0.0886	0.4640	–0.3441
H(C24)	–0.0198	0.3139	–0.2687
H(C26)	–0.0611	0.0876	–0.0075
H(C27)	–0.1603	–0.0093	–0.1099
H(C28)	–0.2453	0.0103	–0.3045
H(C29)	–0.2363	0.1300	–0.3980
H(C30)	–0.1313	0.2261	–0.2958
H(C32)	–0.0722	0.4170	0.2029
H(C33)	–0.1603	0.5671	0.2205
H(C34)	–0.3590	0.6202	0.1816
H(C35)	–0.4708	0.5258	0.1127
H(C36)	–0.3870	0.3759	0.0918
H(C38)	–0.0407	0.0865	0.2164
H(C39)	–0.0423	–0.0076	0.3524
H(C40)	–0.1570	0.0508	0.4545
H(C41)	–0.2680	0.2018	0.4244
H(C42)	–0.2666	0.2961	0.2886
H(C44)	–0.2916	0.1445	0.0825
H(C45)	–0.4355	0.1159	–0.0756
H(C46)	–0.4947	0.1944	–0.2454
H(C47)	–0.4221	0.3124	–0.2591
H(C48)	–0.2757	0.3410	–0.0976

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Table S-IV. Anisotropic Thermal Parameters for Complex **5**

atom	U_{11}	U_{22}	U_{33}	U_{12}	U_{13}	U_{23}
Pt	0.0272(1)	0.0283(1)	0.0355(1)	–0.00889(8)	0.0129(1)	–0.00199(8)
P(1)	0.0334(8)	0.0286(8)	0.0389(9)	–0.0089(6)	0.0178(7)	–0.0020(6)
P(2)	0.0290(8)	0.0278(8)	0.0391(9)	–0.0082(6)	0.0145(7)	0.0003(6)
B(1)	0.038(4)	0.017(3)	0.054(4)	–0.011(3)	0.020(3)	–0.003(3)
B(2)	0.028(4)	0.036(4)	0.039(4)	–0.006(3)	0.011(3)	0.001(3)
O(1)	0.028(2)	0.054(3)	0.065(3)	–0.014(2)	0.010(2)	0.004(2)
O(2)	0.033(2)	0.043(3)	0.083(3)	–0.005(2)	0.013(2)	0.012(2)
O(3)	0.079(3)	0.043(3)	0.037(2)	–0.031(2)	0.018(2)	–0.006(2)
O(4)	0.075(3)	0.043(3)	0.040(2)	–0.028(2)	0.014(2)	–0.003(2)
C(1)	0.047(4)	0.093(6)	0.099(6)	–0.032(4)	0.020(4)	0.010(5)
C(2)	0.029(3)	0.055(4)	0.080(5)	–0.016(3)	0.016(3)	–0.012(4)
C(3)	0.060(5)	0.083(6)	0.106(7)	–0.035(4)	0.023(5)	–0.029(5)
C(4)	0.070(6)	0.062(5)	0.138(8)	0.000(4)	0.056(6)	–0.026(5)
C(5)	0.024(3)	0.061(5)	0.081(5)	–0.006(3)	0.012(3)	–0.004(4)
C(6)	0.044(5)	0.099(7)	0.113(7)	–0.001(4)	0.009(5)	0.033(6)
C(7)	0.134(8)	0.067(5)	0.075(6)	–0.007(5)	0.061(6)	–0.013(4)
C(8)	0.075(5)	0.050(4)	0.042(4)	–0.029(4)	0.022(4)	–0.010(3)
C(9)	0.16(1)	0.113(7)	0.054(5)	–0.091(7)	0.026(6)	–0.029(5)
C(10)	0.086(6)	0.090(6)	0.052(5)	–0.038(5)	0.023(4)	0.012(4)
C(11)	0.053(4)	0.054(4)	0.035(4)	–0.020(3)	0.010(3)	0.002(3)
C(12)	0.068(6)	0.096(6)	0.068(5)	0.004(5)	0.017(4)	0.016(5)
C(13)	0.035(3)	0.034(3)	0.039(3)	–0.009(3)	0.020(3)	–0.000(3)
C(14)	0.045(4)	0.039(4)	0.061(4)	–0.014(3)	0.030(3)	–0.009(3)
C(15)	0.046(4)	0.039(4)	0.071(5)	–0.008(3)	0.030(4)	–0.013(3)
C(16)	0.042(4)	0.061(4)	0.072(5)	–0.012(3)	0.037(4)	–0.013(4)
C(17)	0.050(4)	0.051(4)	0.077(5)	–0.022(3)	0.038(4)	–0.006(4)
C(18)	0.043(4)	0.033(3)	0.066(4)	–0.011(3)	0.027(3)	–0.007(3)
C(19)	0.034(3)	0.034(3)	0.045(4)	–0.012(3)	0.018(3)	–0.001(3)
C(20)	0.055(4)	0.035(3)	0.057(4)	–0.012(3)	0.028(3)	–0.002(3)
C(21)	0.064(5)	0.031(4)	0.083(5)	–0.010(3)	0.033(4)	–0.005(3)
C(22)	0.056(4)	0.038(4)	0.080(5)	–0.005(3)	0.028(4)	0.017(4)
C(23)	0.058(4)	0.055(4)	0.064(5)	–0.013(4)	0.025(4)	0.020(4)

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C(24)	0.055(4)	0.043(4)	0.053(4)	–0.009(3)	0.030(3)	0.000(3)
C(25)	0.032(3)	0.038(3)	0.043(4)	–0.008(3)	0.020(3)	–0.007(3)
C(26)	0.040(4)	0.037(3)	0.046(4)	0.012(3)	0.013(3)	–0.002(3)
C(27)	0.054(4)	0.048(4)	0.065(5)	–0.025(3)	0.019(4)	–0.004(4)
C(28)	0.063(5)	0.066(5)	0.077(5)	–0.039(4)	0.031(4)	–0.028(4)
C(29)	0.090(6)	0.102(6)	0.041(4)	–0.051(5)	0.021(4)	–0.021(4)
C(30)	0.075(5)	0.072(5)	0.045(4)	–0.042(4)	0.023(4)	–0.007(4)
C(31)	0.034(3)	0.039(3)	0.035(3)	–0.008(3)	0.014(3)	–0.006(3)
C(32)	0.043(4)	0.040(4)	0.050(4)	–0.014(3)	0.018(3)	–0.008(3)
C(33)	0.064(5)	0.043(4)	0.075(5)	–0.023(4)	0.024(4)	–0.015(4)
C(34)	0.065(5)	0.037(4)	0.076(5)	–0.001(4)	0.026(4)	–0.013(4)
C(35)	0.037(4)	0.051(4)	0.071(5)	0.001(3)	0.017(4)	–0.006(4)
C(36)	0.034(3)	0.046(4)	0.055(4)	–0.007(3)	0.013(3)	–0.008(3)
C(37)	0.034(3)	0.045(4)	0.044(4)	–0.017(3)	0.017(3)	0.001(3)
C(38)	0.044(4)	0.041(4)	0.055(4)	–0.014(3)	0.020(3)	–0.001(3)
C(39)	0.064(5)	0.044(4)	0.059(4)	–0.020(3)	0.014(4)	0.011(3)
C(40)	0.070(5)	0.071(5)	0.060(5)	–0.033(4)	0.027(4)	0.013(4)
C(41)	0.059(5)	0.085(6)	0.059(5)	–0.019(4)	0.036(4)	0.010(4)
C(42)	0.045(4)	0.050(4)	0.059(4)	–0.005(3)	0.027(4)	0.010(3)
C(43)	0.030(3)	0.038(3)	0.051(4)	–0.011(3)	0.019(3)	–0.012(3)
C(44)	0.042(4)	0.057(4)	0.072(5)	–0.025(3)	0.012(4)	–0.011(4)
C(45)	0.062(5)	0.089(6)	0.092(7)	–0.043(5)	0.015(5)	–0.017(5)
C(46)	0.045(5)	0.103(7)	0.088(6)	–0.036(5)	0.017(5)	–0.047(6)
C(47)	0.050(5)	0.106(7)	0.051(5)	–0.013(5)	0.013(4)	–0.009(4)
C(48)	0.041(4)	0.077(5)	0.054(4)	–0.023(4)	0.015(3)	–0.010(4)

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Table S-V. Intramolecular Distances Involving the Non-Hydrogen Atoms for Complex **5**

atom	atom	distance (Å)	atom	atom	distance (Å)
Pt	P(1)	2.353(2)	C(19)	C(20)	1.384(8)
Pt	P(2)	2.351(2)	C(19)	C(24)	1.393(8)
Pt	B(1)	2.076(6)	C(20)	C(21)	1.393(8)
Pt	B(2)	2.078(7)	C(21)	C(22)	1.366(9)
P(1)	C(13)	1.844(5)	C(22)	C(23)	1.359(9)
P(1)	C(19)	1.833(5)	C(23)	C(24)	1.391(8)
P(1)	C(25)	1.837(6)	C(25)	C(26)	1.387(7)
P(2)	C(31)	1.841(6)	C(25)	C(30)	1.379(8)
P(2)	C(37)	1.838(6)	C(26)	C(27)	1.381(8)
P(2)	C(43)	1.825(6)	C(27)	C(28)	1.352(9)
B(1)	O(1)	1.328(7)	C(28)	C(29)	1.38(1)
B(1)	O(2)	1.429(7)	C(29)	C(30)	1.390(9)
B(2)	O(3)	1.388(7)	C(31)	C(32)	1.381(7)
B(2)	O(4)	1.363(7)	C(31)	C(36)	1.411(7)
O(1)	C(2)	1.448(7)	C(32)	C(33)	1.378(8)
O(2)	C(5)	1.474(7)	C(33)	C(34)	1.379(9)
O(3)	C(8)	1.452(1)	C(34)	C(35)	1.360(9)
O(4)	C(11)	1.445(7)	C(35)	C(36)	1.372(8)
C(1)	C(2)	1.518(9)	C(37)	C(38)	1.388(8)
C(2)	C(3)	1.51(1)	C(37)	C(42)	1.384(8)
C(2)	C(5)	1.543(9)	C(38)	C(39)	1.392(8)
C(4)	C(5)	1.51(1)	C(39)	C(40)	1.371(9)
C(5)	C(6)	1.51(1)	C(40)	C(41)	1.372(9)
C(7)	C(8)	1.51(1)	C(41)	C(42)	1.383(8)
C(8)	C(9)	1.51(1)	C(43)	C(44)	1.381(8)
C(8)	C(11)	1.551(8)	C(43)	C(48)	1.385(8)
C(10)	C(11)	1.518(9)	C(44)	C(45)	1.369(9)
C(11)	C(12)	1.504(9)	C(45)	C(46)	1.34(1)
C(13)	C(14)	1.389(7)	C(46)	C(47)	1.38(1)
C(13)	C(18)	1.383(7)	C(47)	C(48)	1.396(9)
C(14)	C(15)	1.385(8)	C(49)	C(50)	1.40
C(15)	C(16)	1.378(8)	C(49)	C(51)*	1.40
C(16)	C(17)	1.368(8)	C(50)	C(51)	1.40
C(17)	C(18)	1.383(8)	C(50)	C(52)	1.54

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Table S-VI. Intramolecular Bond Angles Involving the Non-Hydrogen Atoms for Complex **5**

atom	atom	atom	angle (°)	atom	atom	atom	angle (°)
P(1)	Pt	P(2)	102.65(5)	C(1)	C(2)	C(5)	114.3(6)
P(1)	Pt	B(1)	92.9(2)	C(3)	C(2)	C(5)	113.8(6)
P(1)	Pt	B(2)	167.9(2)	O(2)	C(5)	C(2)	102.2(5)
P(2)	Pt	B(1)	164.3(2)	O(2)	C(5)	C(4)	106.8(6)
P(2)	Pt	B(2)	89.0(2)	O(2)	C(5)	C(6)	107.5(6)
B(1)	Pt	B(2)	75.3(3)	C(2)	C(5)	C(4)	113.9(6)
Pt	P(1)	C(13)	118.3(2)	C(2)	C(5)	C(6)	116.1(6)
Pt	P(1)	C(19)	110.9(2)	C(4)	C(5)	C(6)	109.5(6)
Pt	P(1)	C(25)	118.0(2)	O(3)	C(8)	C(7)	107.1(6)
C(13)	P(1)	C(19)	101.0(2)	O(3)	C(8)	C(9)	108.7(6)
C(13)	P(1)	C(25)	99.7(2)	O(3)	C(8)	C(11)	102.6(5)
C(19)	P(1)	C(25)	106.9(3)	C(7)	C(8)	C(9)	108.8(7)
Pt	P(2)	C(31)	114.2(2)	C(7)	C(8)	C(11)	113.8(6)
Pt	P(2)	C(37)	111.3(2)	C(9)	C(8)	C(11)	115.3(6)
Pt	P(2)	C(43)	122.7(2)	O(4)	C(11)	C(8)	102.0(4)
C(31)	P(2)	C(37)	105.1(3)	O(4)	C(11)	C(10)	108.9(5)
C(31)	P(2)	C(43)	100.7(2)	O(4)	C(11)	C(12)	107.0(6)
C(37)	P(2)	C(43)	100.7(3)	C(8)	C(11)	C(10)	114.5(6)
Pt	B(1)	O(1)	127.6(4)	C(8)	C(11)	C(12)	114.4(6)
Pt	B(1)	O(2)	122.6(4)	C(10)	C(11)	C(12)	109.5(6)
O(1)	B(1)	O(2)	109.6(5)	P(1)	C(13)	C(14)	121.2(4)
Pt	B(2)	O(3)	124.7(4)	P(1)	C(13)	C(18)	120.5(4)
Pt	B(2)	O(4)	125.5(4)	C(14)	C(13)	C(18)	118.3(5)
O(3)	B(2)	O(4)	109.8(5)	C(13)	C(14)	C(15)	120.9(5)
B(1)	O(1)	C(2)	111.6(5)	C(14)	C(15)	C(16)	119.3(6)
B(1)	O(2)	C(5)	106.9(4)	C(15)	C(16)	C(17)	120.8(6)
B(2)	O(3)	C(8)	108.5(4)	C(16)	C(17)	C(18)	119.5(6)
B(2)	O(4)	C(11)	110.6(5)	C(13)	C(18)	C(17)	121.1(5)
O(1)	C(2)	C(1)	108.5(6)	P(1)	C(19)	C(20)	117.8(4)
O(1)	C(2)	C(3)	107.1(5)	P(1)	C(19)	C(24)	124.0(4)
O(1)	C(2)	C(5)	102.1(5)	C(20)	C(19)	C(24)	118.1(5)
C(1)	C(2)	C(3)	110.3(6)	C(19)	C(20)	C(21)	120.9(6)

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C(20)	C(21)	C(22)	120.2(6)
C(21)	C(22)	C(23)	119.7(6)
C(22)	C(23)	C(24)	121.1(6)
C(19)	C(24)	C(23)	120.0(6)
P(1)	C(25)	C(26)	117.9(4)
P(1)	C(25)	C(30)	124.2(5)
C(26)	C(25)	C(30)	117.7(5)
C(25)	C(26)	C(27)	121.1(6)
C(26)	C(27)	C(28)	120.8(6)
C(27)	C(28)	C(29)	119.2(6)
C(28)	C(29)	C(30)	120.5(6)
C(25)	C(30)	C(29)	120.6(6)
P(2)	C(31)	C(32)	120.1(4)
P(2)	C(31)	C(36)	120.8(4)
C(32)	C(31)	C(36)	119.1(5)
C(31)	C(32)	C(33)	119.5(6)
C(32)	C(33)	C(34)	121.4(6)
C(33)	C(34)	C(35)	119.2(6)
C(34)	C(35)	C(36)	121.2(6)
C(31)	C(36)	C(35)	119.6(6)
P(2)	C(37)	C(38)	117.0(4)
P(2)	C(37)	C(42)	124.1(5)
C(38)	C(37)	C(42)	118.9(5)
C(37)	C(38)	C(39)	120.3(6)
C(38)	C(39)	C(40)	120.1(6)
C(39)	C(40)	C(41)	119.8(6)
C(40)	C(41)	C(42)	120.7(5)
C(37)	C(42)	C(41)	120.2(6)
P(2)	C(43)	C(44)	122.8(5)
P(2)	C(43)	C(48)	119.7(4)
C(44)	C(43)	C(48)	117.4(6)
C(43)	C(44)	C(45)	121.9(7)
C(44)	C(45)	C(46)	120.1(7)
C(45)	C(46)	C(47)	120.8(7)
C(46)	C(47)	C(48)	118.8(7)
C(43)	C(48)	C(47)	120.9(7)
C(50)	C(49)	C(51)*	120.0
C(49)	C(50)	C(51)	120.0
C(49)	C(50)	C(52)	120.0
C(51)	C(50)	C(52)	120.0
C(49)*	C(51)	C(50)	120.0

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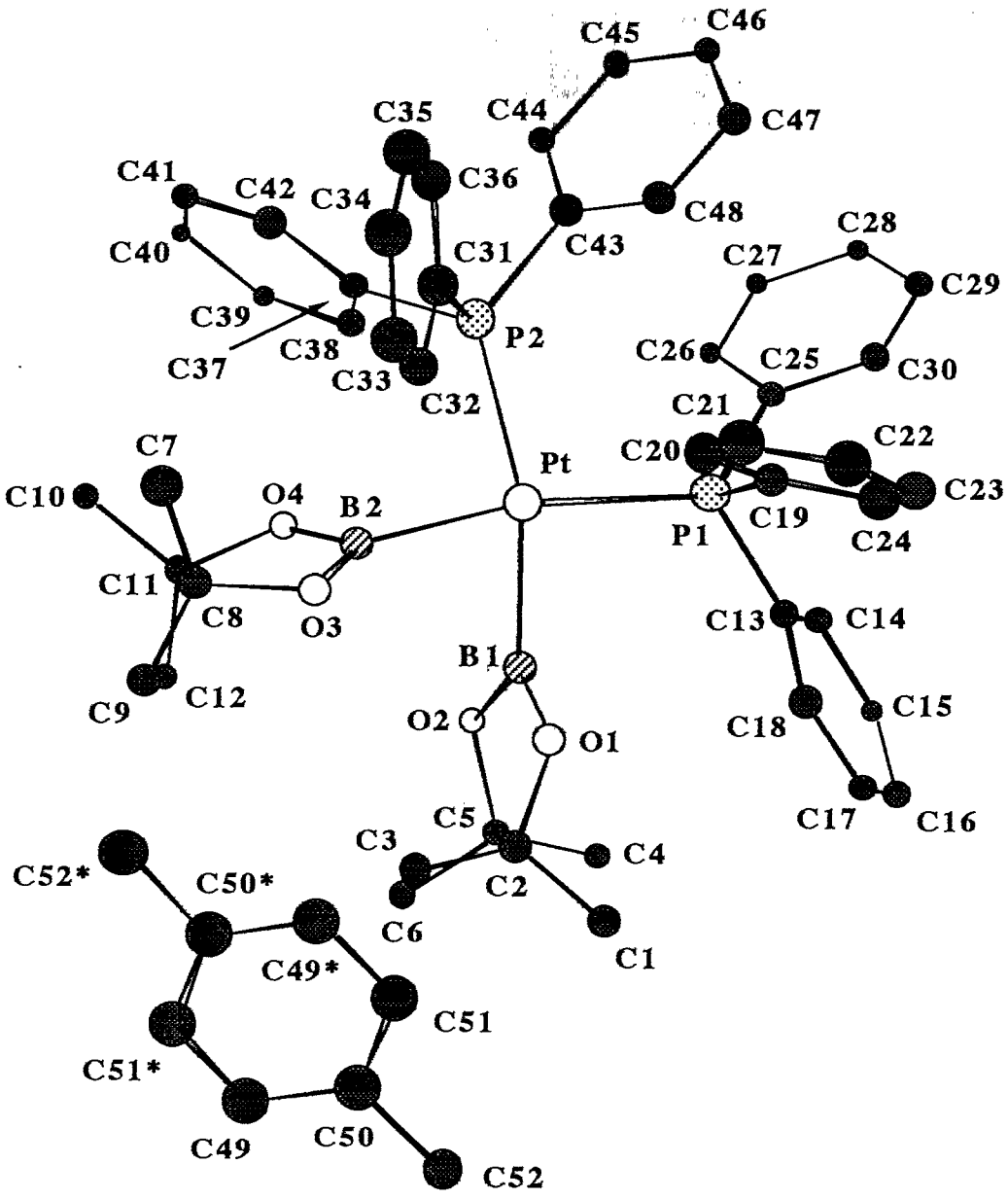
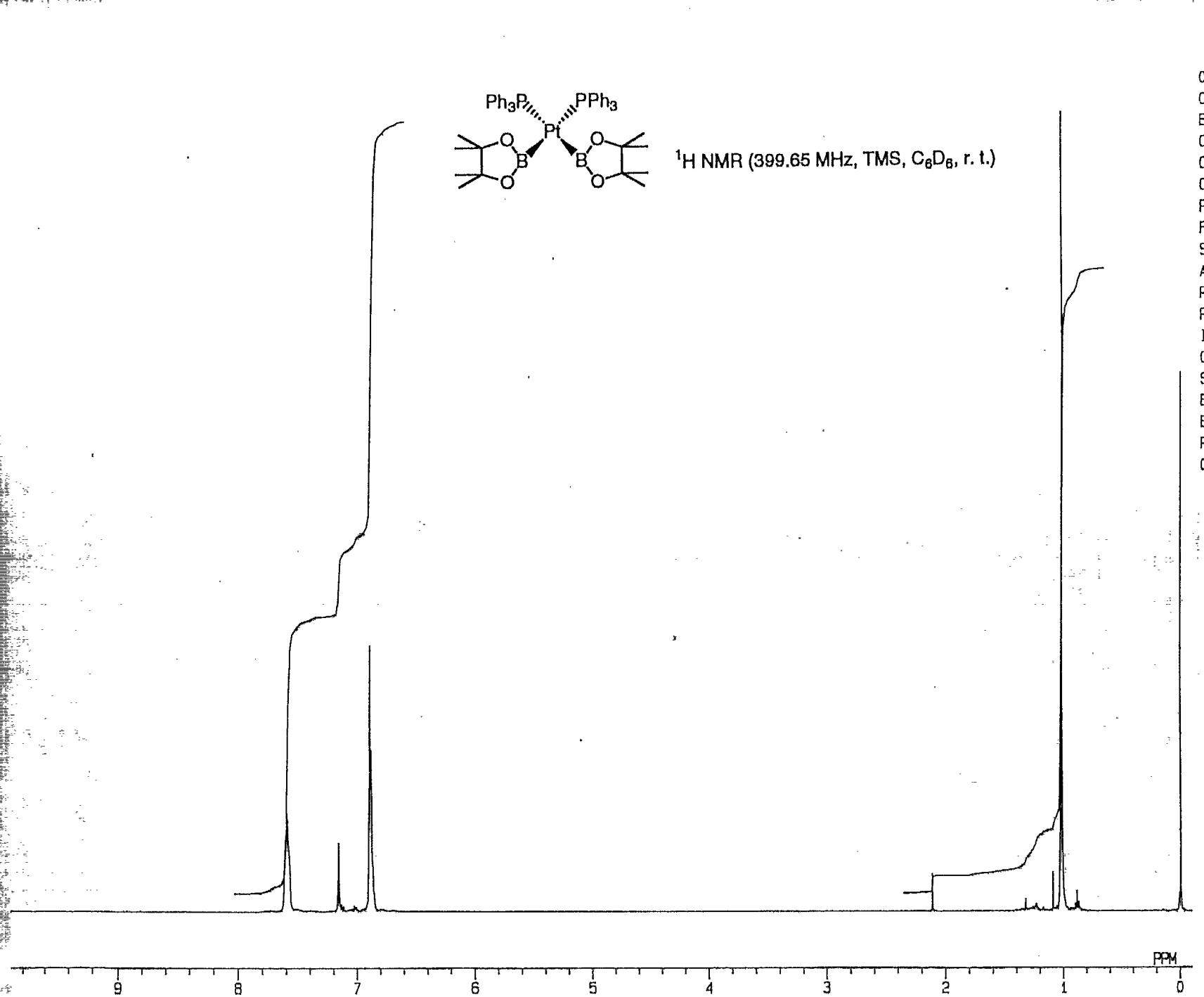
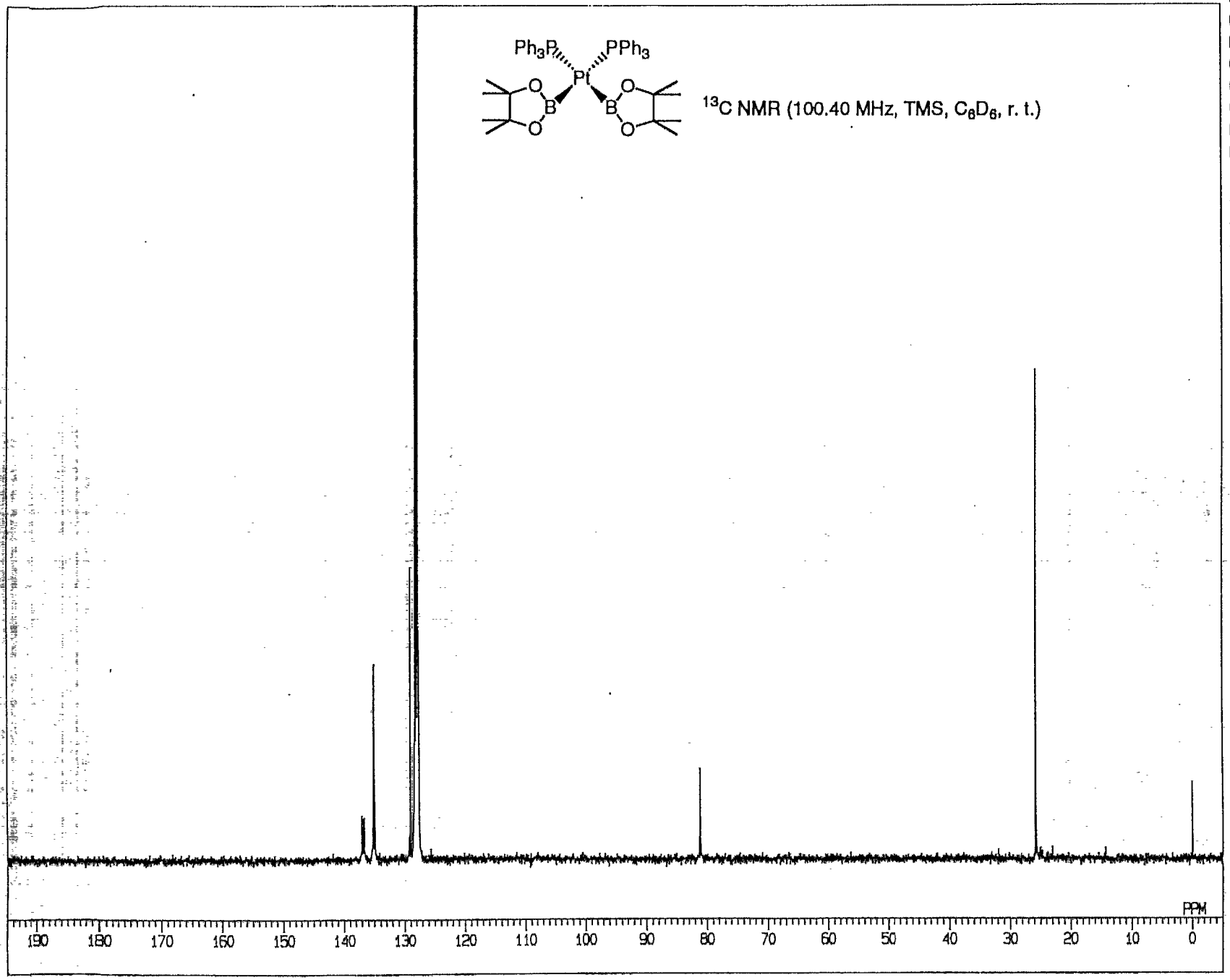


Figure S-1. Atomic Numbering Scheme for Complex **5**



L720-24



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^{11}B NMR (128.33 MHz, BF_3•OEt_2, toluene, r. t.)

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