

Supporting Information

Copper Complexes of Arylselenolate based Ligands: Synthesis and Catalytic Activity in Azide-Alkyne Cycloaddition Reactions

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CD-SY-910

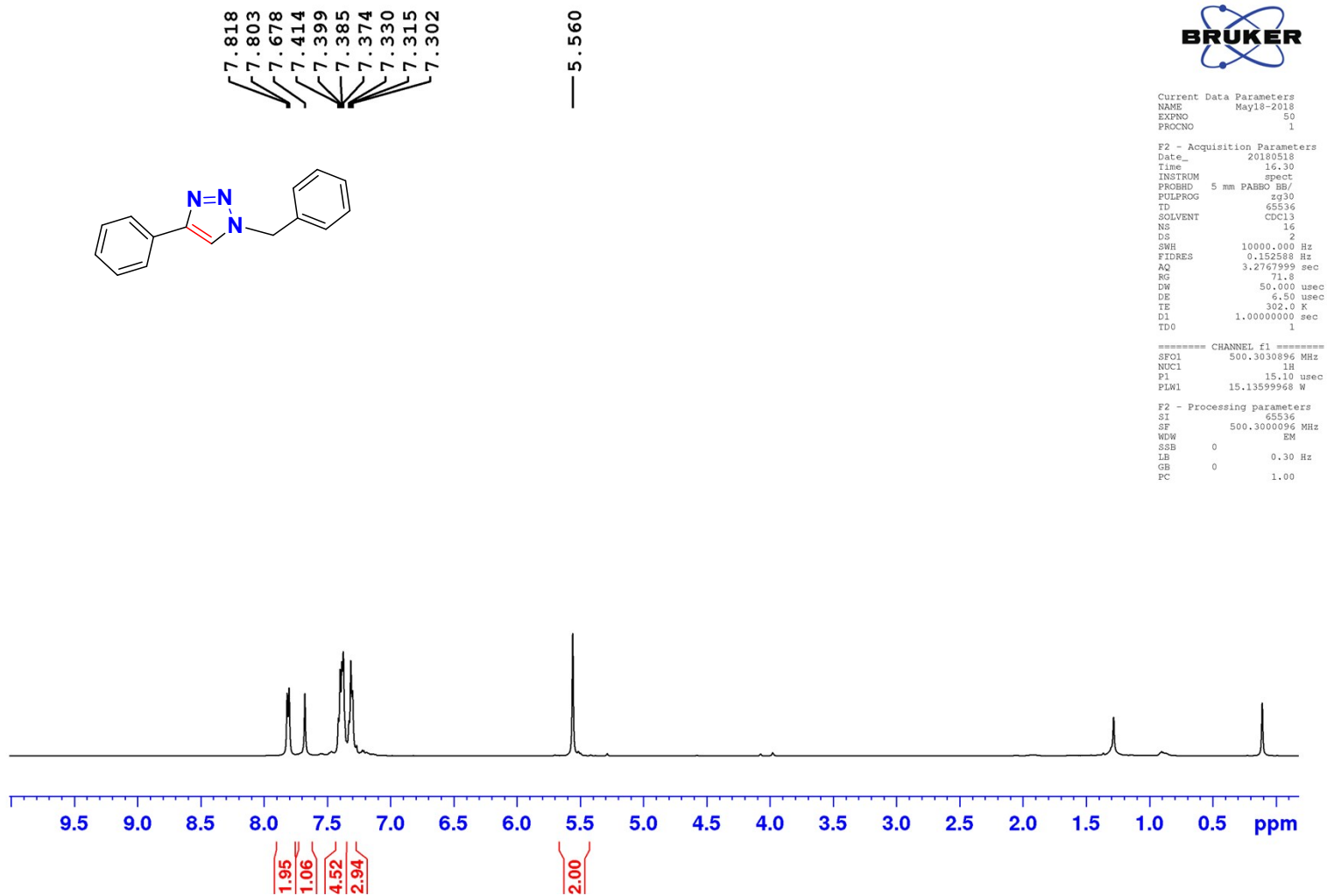


Figure S1. ¹H NMR spectrum of **3aa** in CDCl₃

CD-SY-910

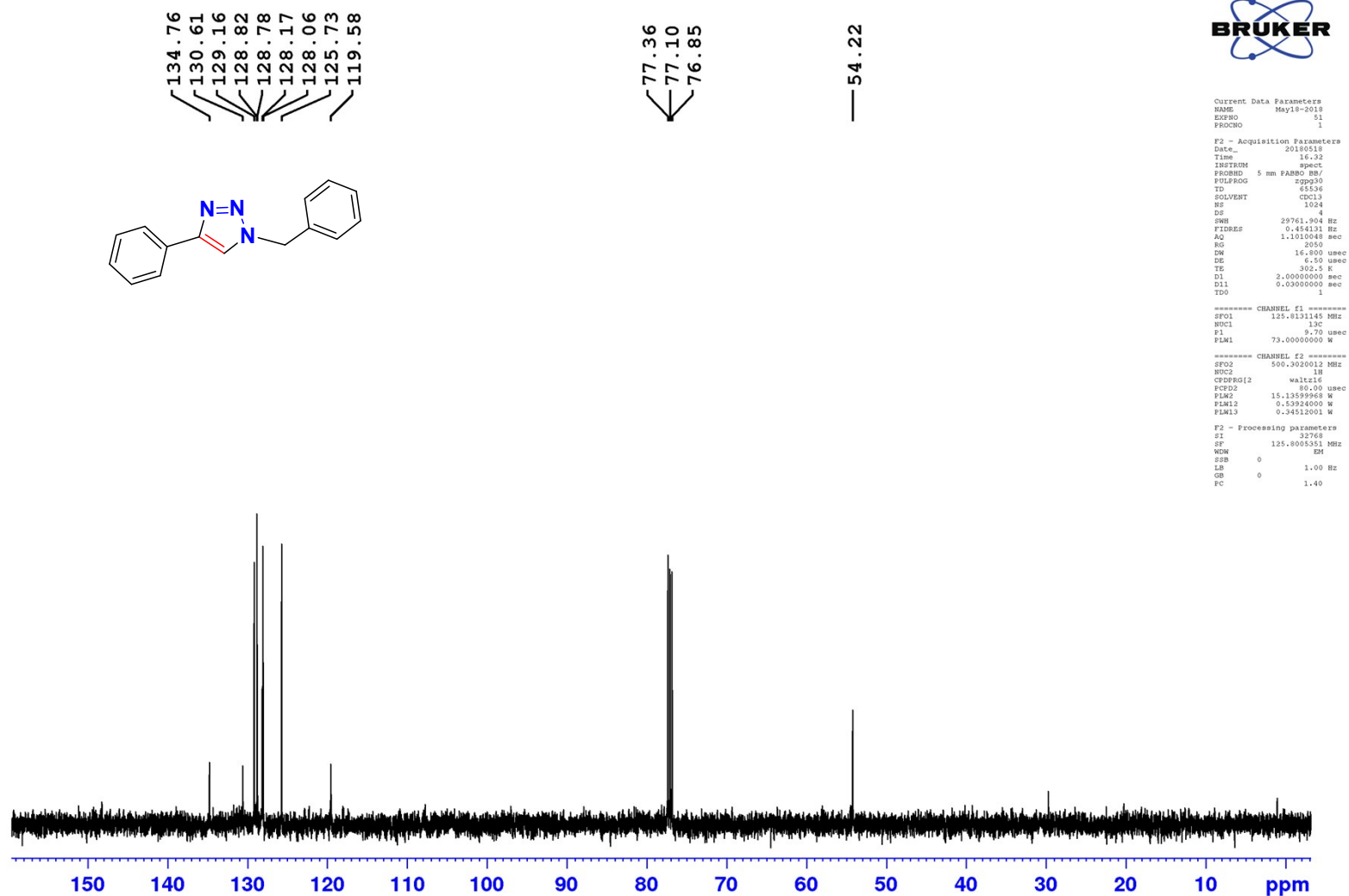


Figure S2. $^{13}\text{C}\{^1\text{H}\}$ NMR spectrum of 3aa in CDCl_3

CD-SY-915

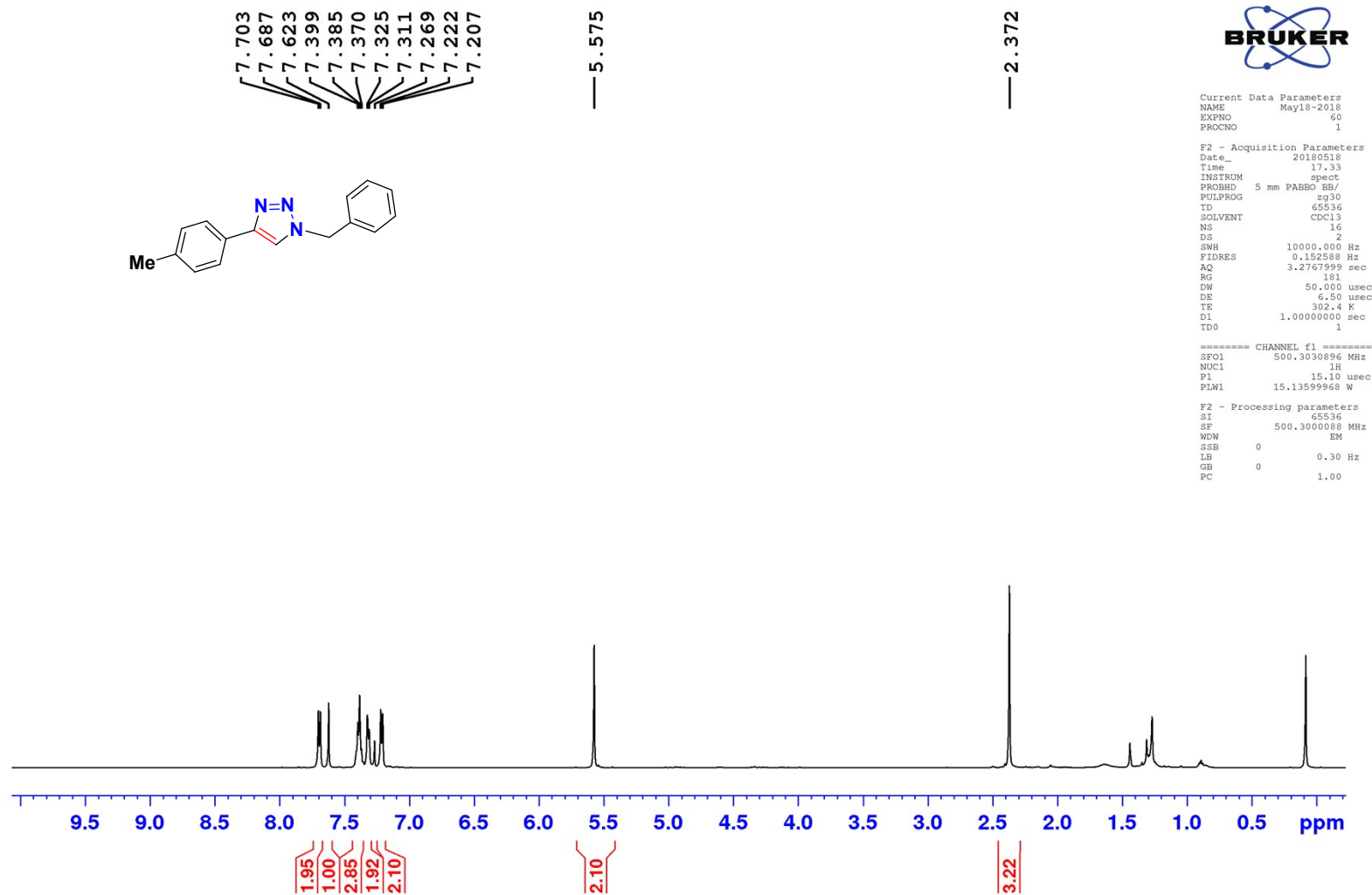


Figure S3. ¹H NMR spectrum of **3ab** in CDCl₃

CD-SY-915
21/05/2018

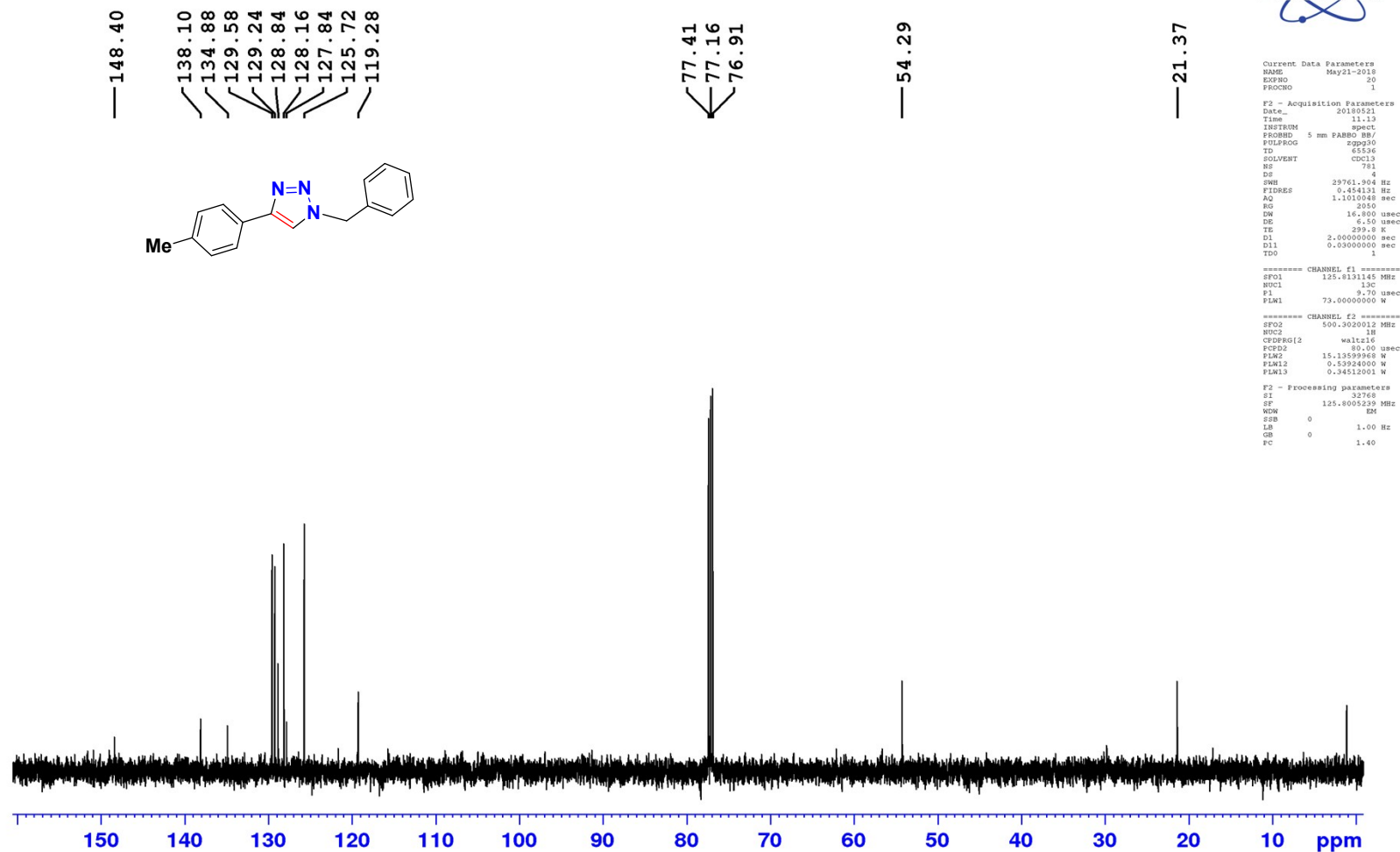


Figure S4. $^{13}\text{C}\{^1\text{H}\}$ NMR spectrum of **3ab** in CDCl_3

CD-SY-916
21/5/2018

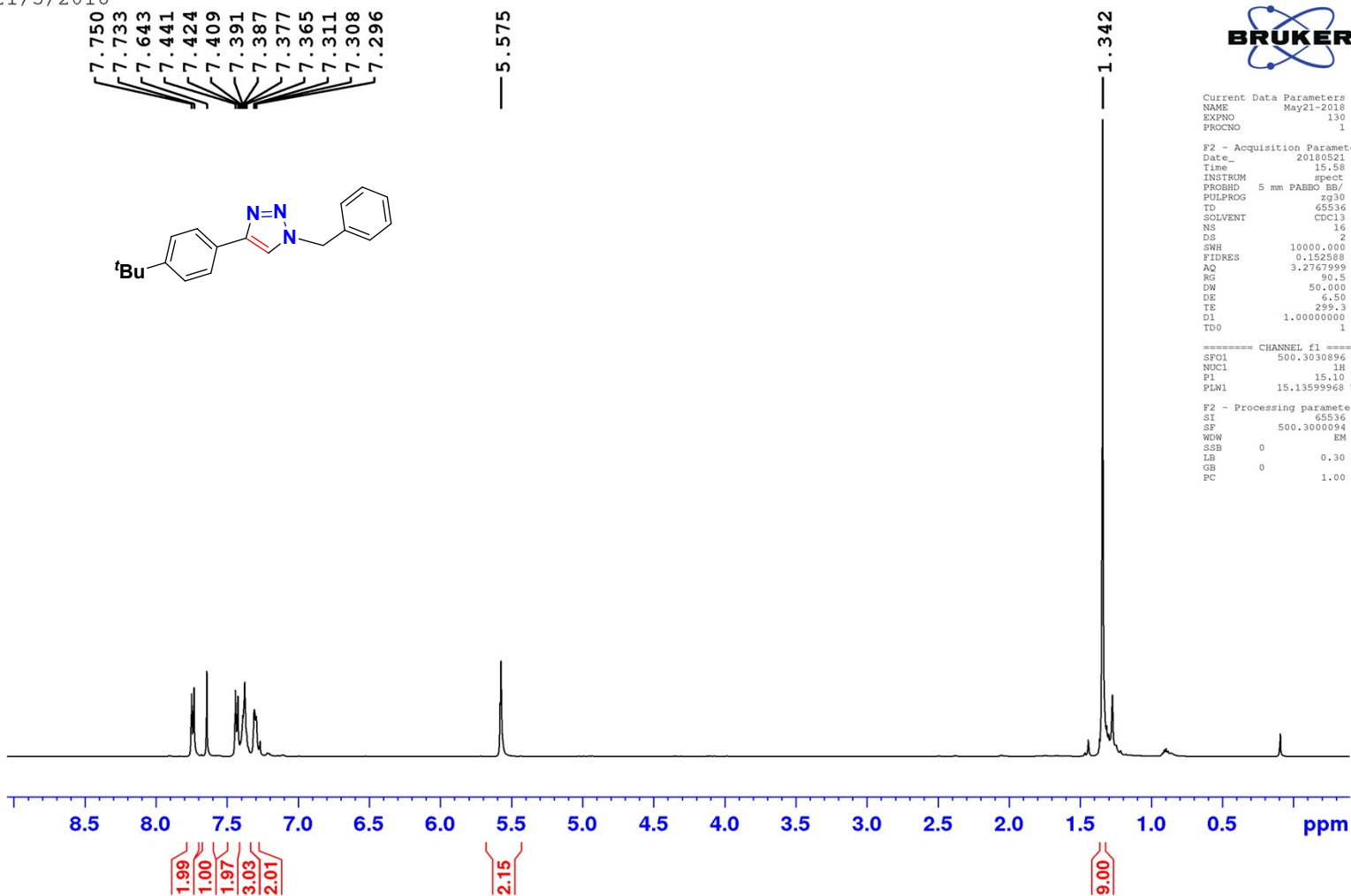


Figure S5. ^1H NMR spectrum of **3ac** in CDCl_3

CD-SY-916
21/5/2018

— 151.40
— 148.36
134.95
129.24
128.83
128.11
127.87
125.83
125.57
119.36

77.41
77.16
76.90

— 54.29

— 34.77
— 31.40



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PROCNO    1

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SOLVENT   CDCl3
NS         624
DS         4
SWH        29761.904 Hz
FIDRES     0.454131 Hz
AQ         1.1502048 sec
RG         2050
SQ         16.800 usec
DE         6.50 usec
TE         300.0 K
D1         2.0000000 sec
D11        0.0300000 sec
TD0        1

===== CHANNEL f1 =====
SF01       125.8131145 MHz
NUC1        13C
P1          9.70 usec
PLM1       73.0000000 W

===== CHANNEL f2 =====
SF02       500.3020012 MHz
NUC2        1H
CPDPRG2    waltz16
PCPD2      80.00 usec
PLM2       15.13599968 W
PLM12      0.53924000 W
PLM13      0.34512001 W

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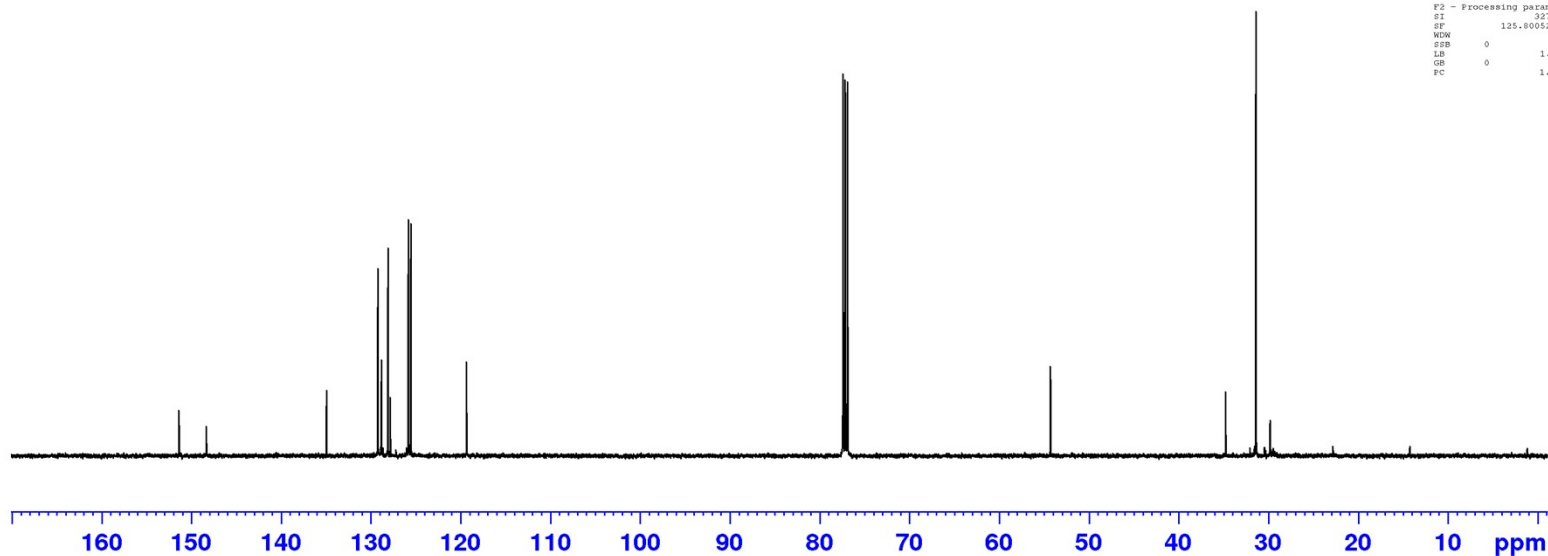
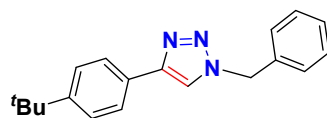


Figure S6. $^{13}\text{C}\{^1\text{H}\}$ NMR spectrum of **3ac** in CDCl_3

CD-SY-931
21/5/2018

8.206
7.936
7.921
7.817
7.801
7.575
7.560
7.545
7.489
7.474
7.459
7.397
7.382
7.368
7.269



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PROCNO    1

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NS         16
DS         2
SWH        10000.000 Hz
FIDRES     0.152588 Hz
AQ         3.2767999 sec
RG         181
DW         50.000 usec
DE         6.50 usec
TE         300.1 K
D1         1.0000000 sec
TD0        1

===== CHANNEL f1 =====
SFO1      500.3030896 MHz
NUC1      1H
P1        15.10 usec
PLW1      15.13599968 W

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LB         0.30 Hz
GB         0
PC         1.00
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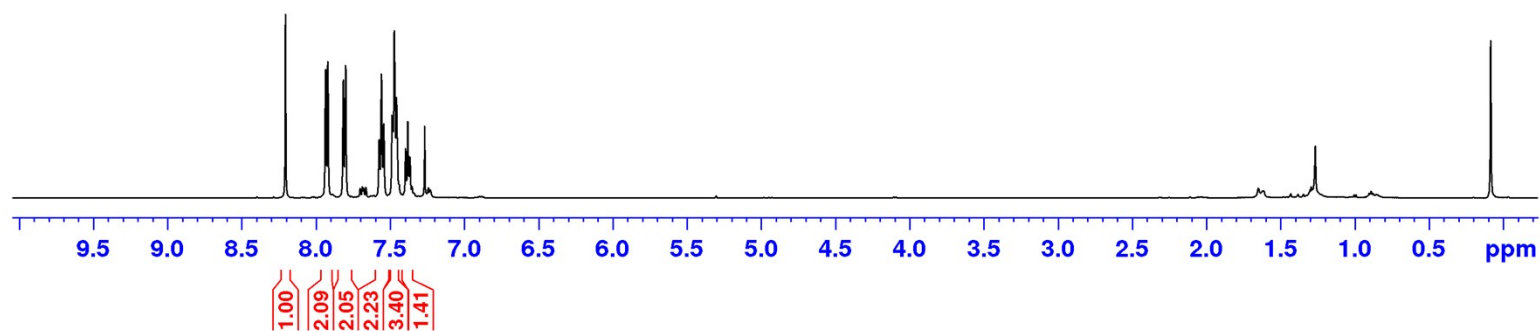


Figure S7. ¹H NMR spectrum of **3ad** in CDCl₃

CD-SY-931
22/5/2018

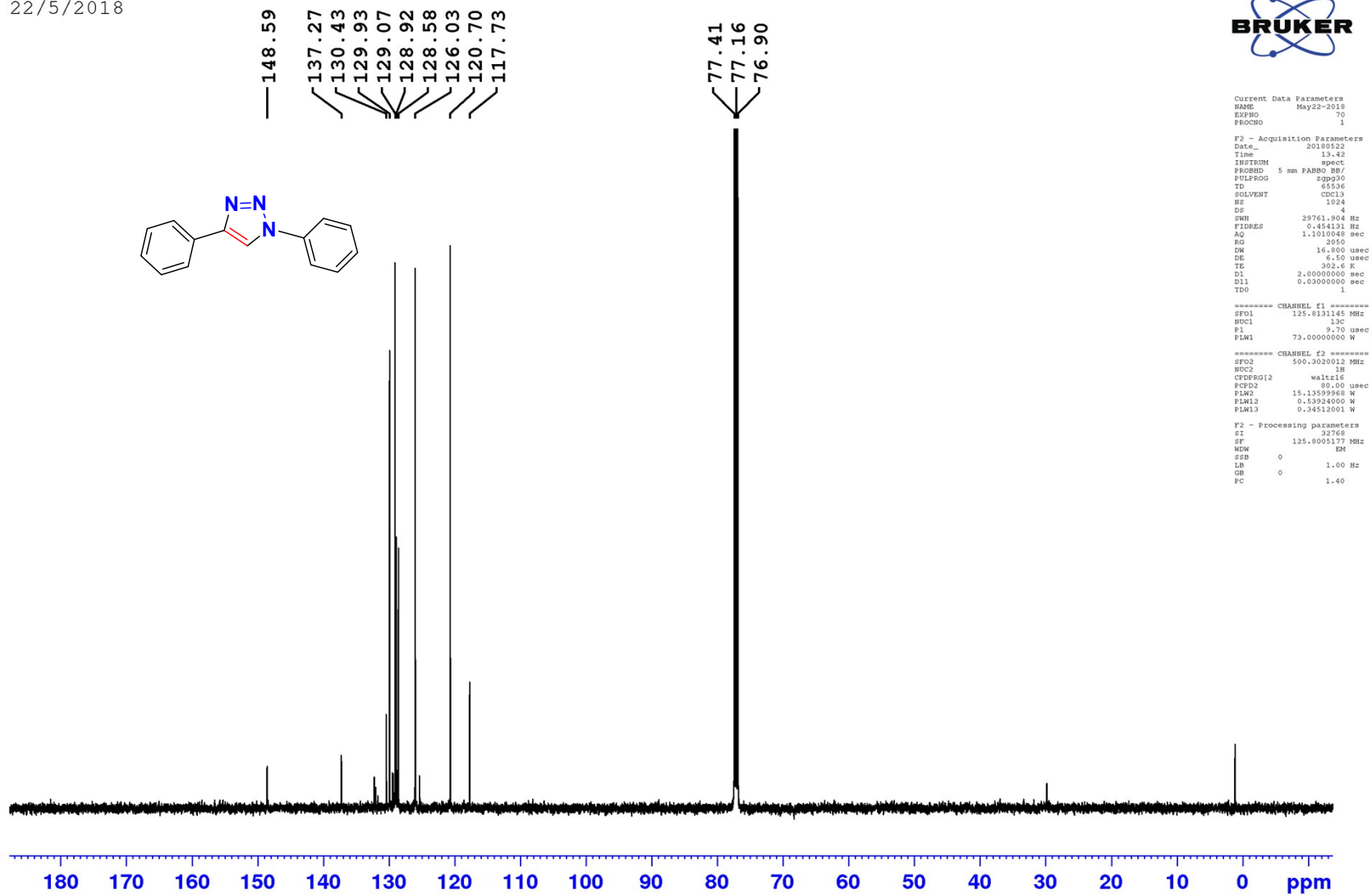


Figure S8. $^{13}\text{C}\{^1\text{H}\}$ NMR spectrum of **3ad** in CDCl_3

CD-SY-932
21/5/2018

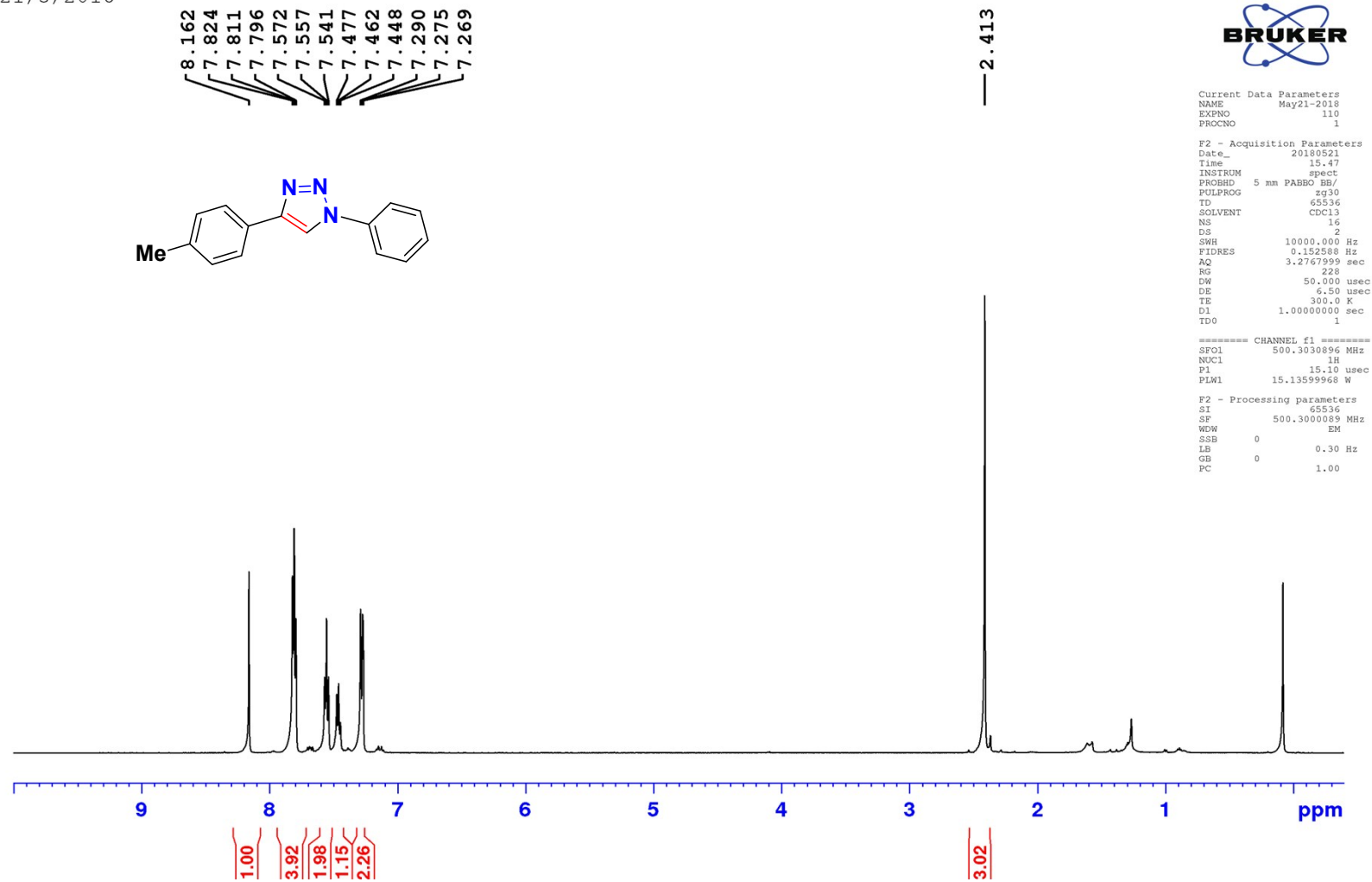


Figure S9. ¹H NMR spectrum of 3ae in CDCl₃

CD-SY-932

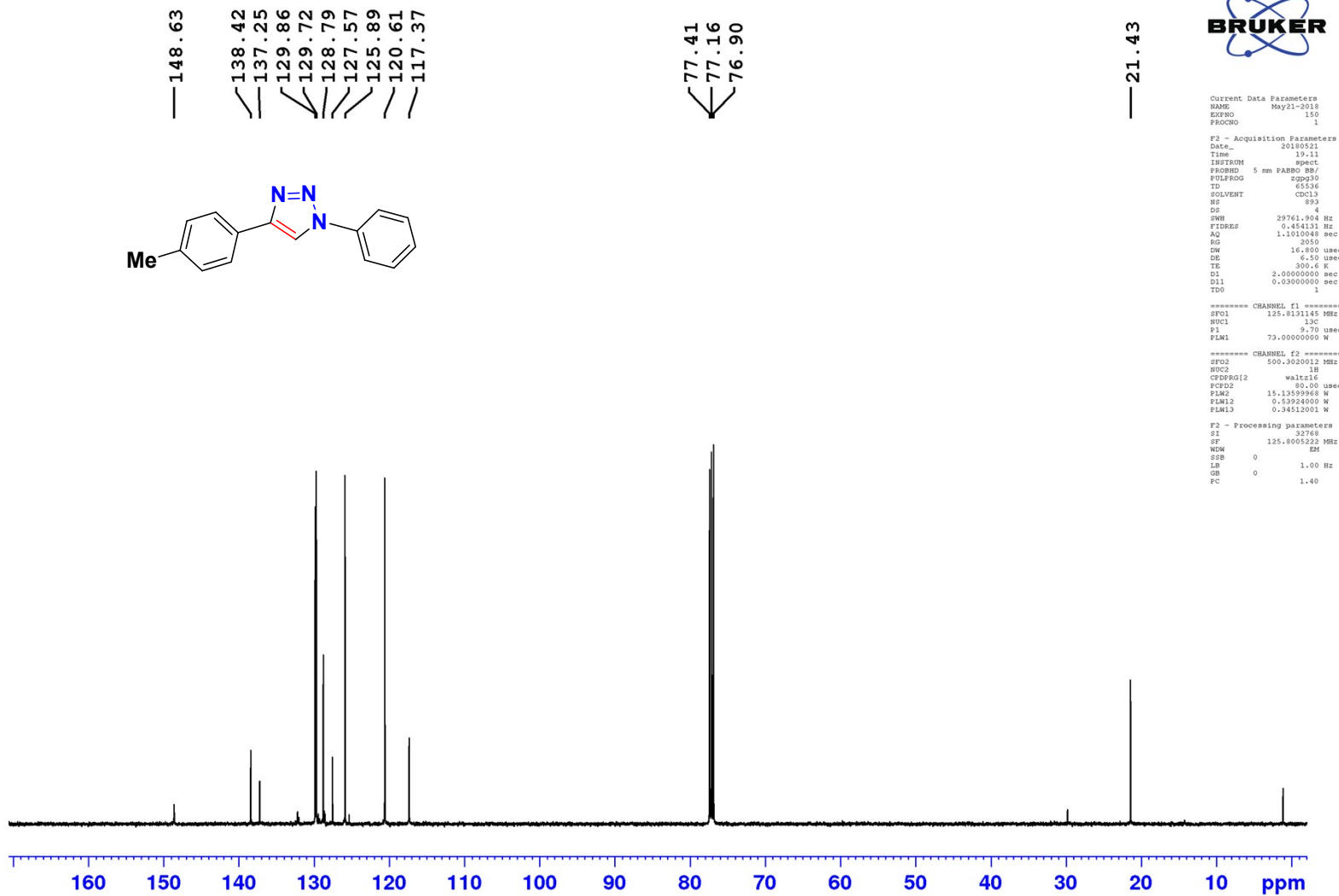


Figure S10. $^{13}\text{C}\{^1\text{H}\}$ NMR spectrum of **3ae** in CDCl_3

CD-SY-933
21/5/2018

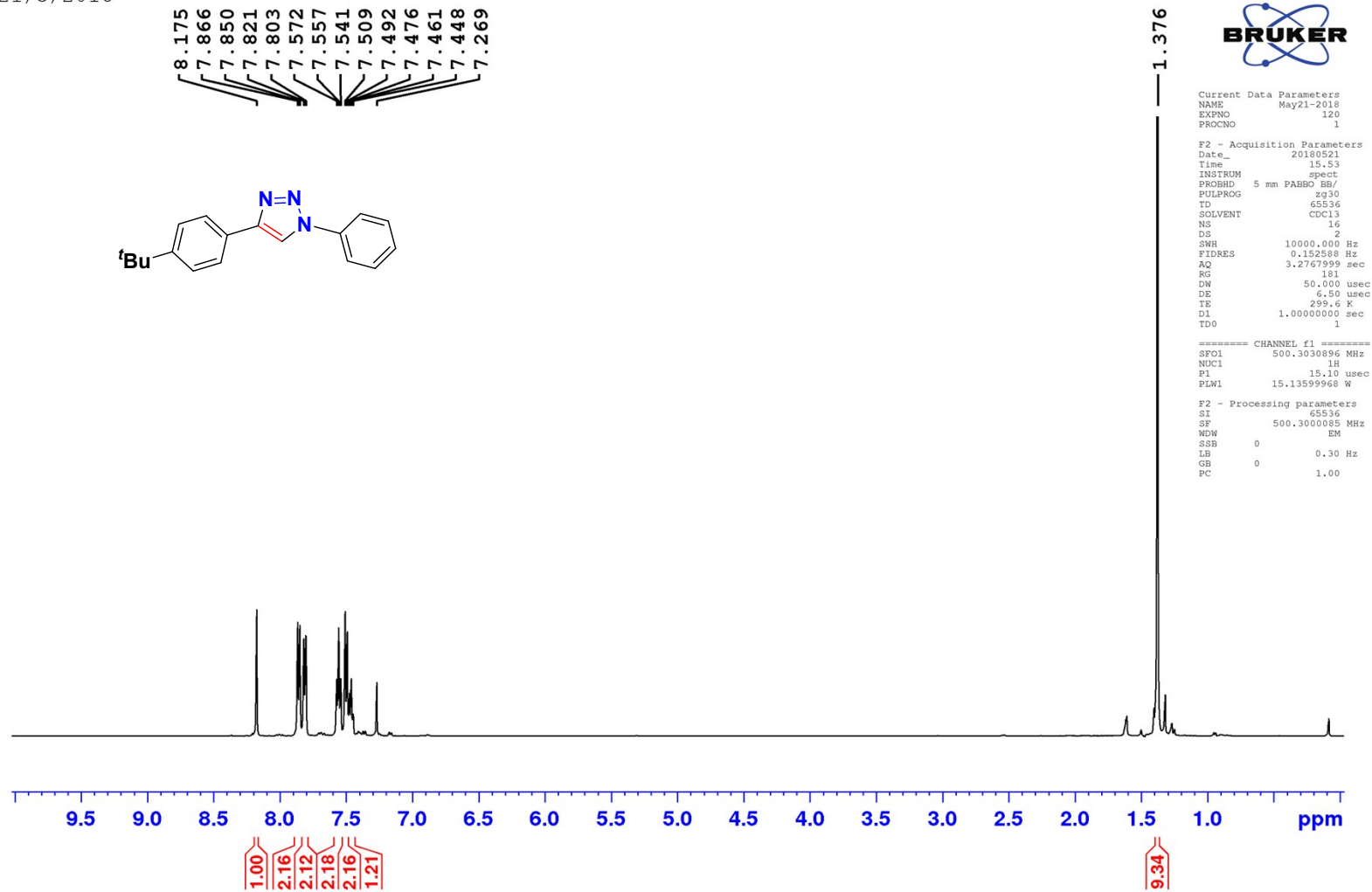


Figure S11. ¹HNMR spectrum of 3af in CDCl₃

CD-SY-933

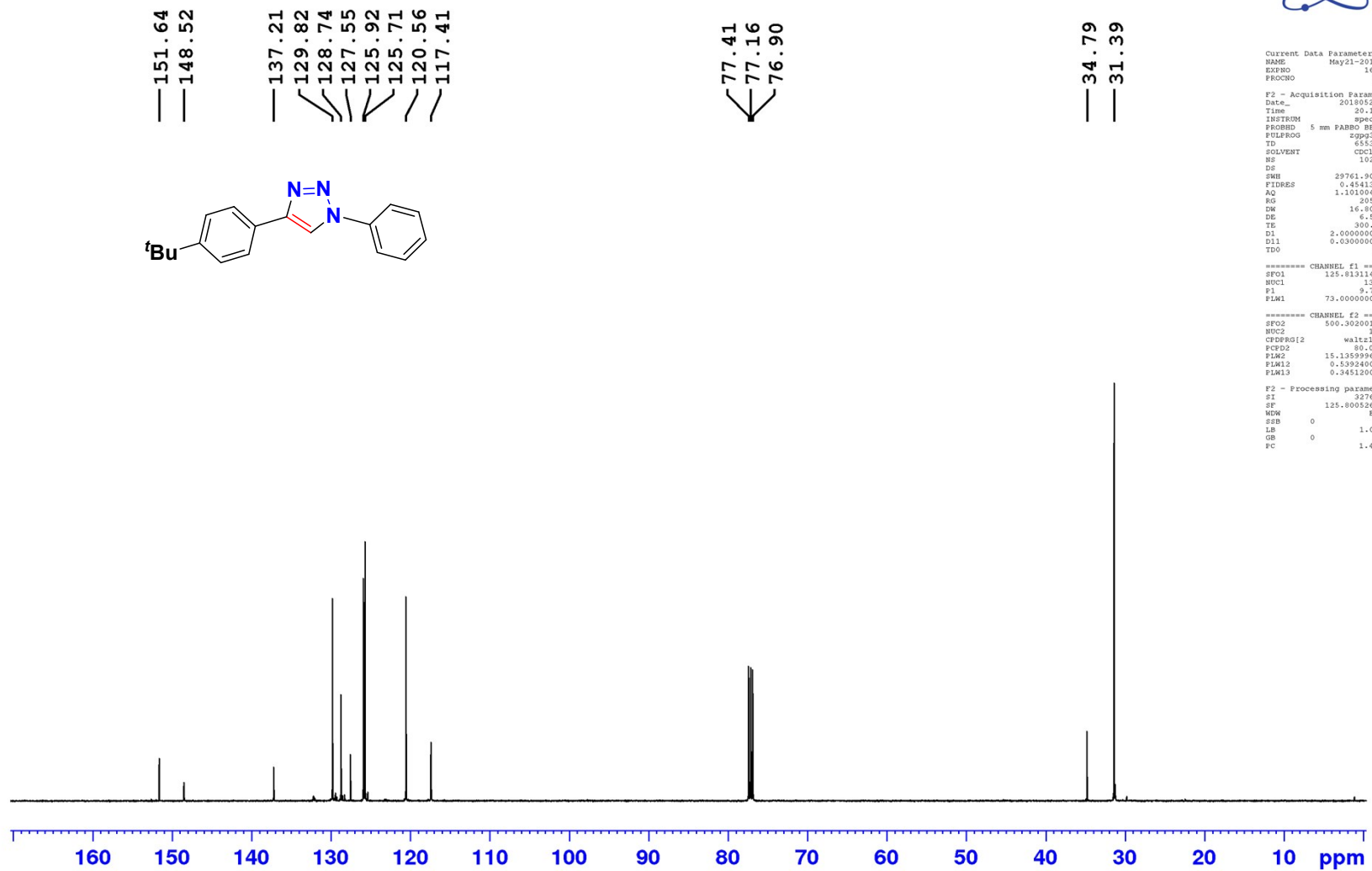
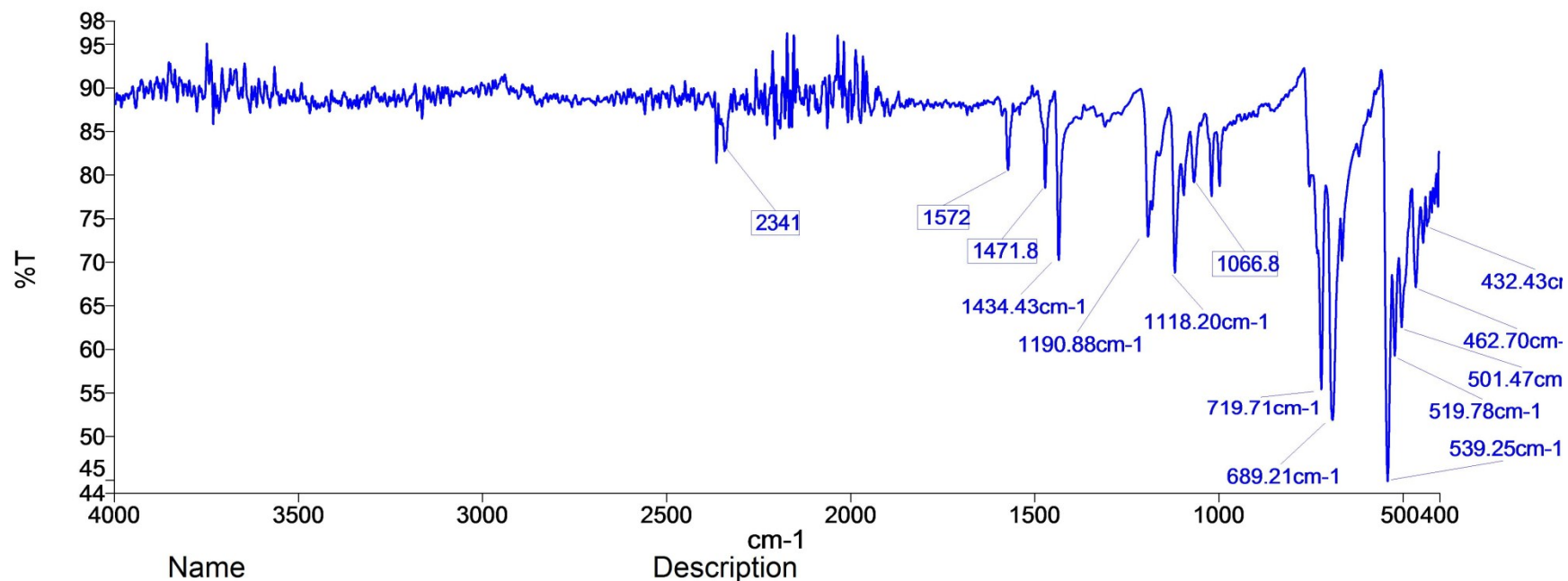


Figure S12. $^{13}\text{C}\{^1\text{H}\}$ NMR spectrum of 3af in CDCl_3



Name

Description

Rsc-15 Sample 725 By Administrator Date Wednesday, September 27 2017

Figure S13. IR spectrum of $[\text{CuCl}(\text{SePh})(\text{PPh}_3)_2]$ (**1a**)

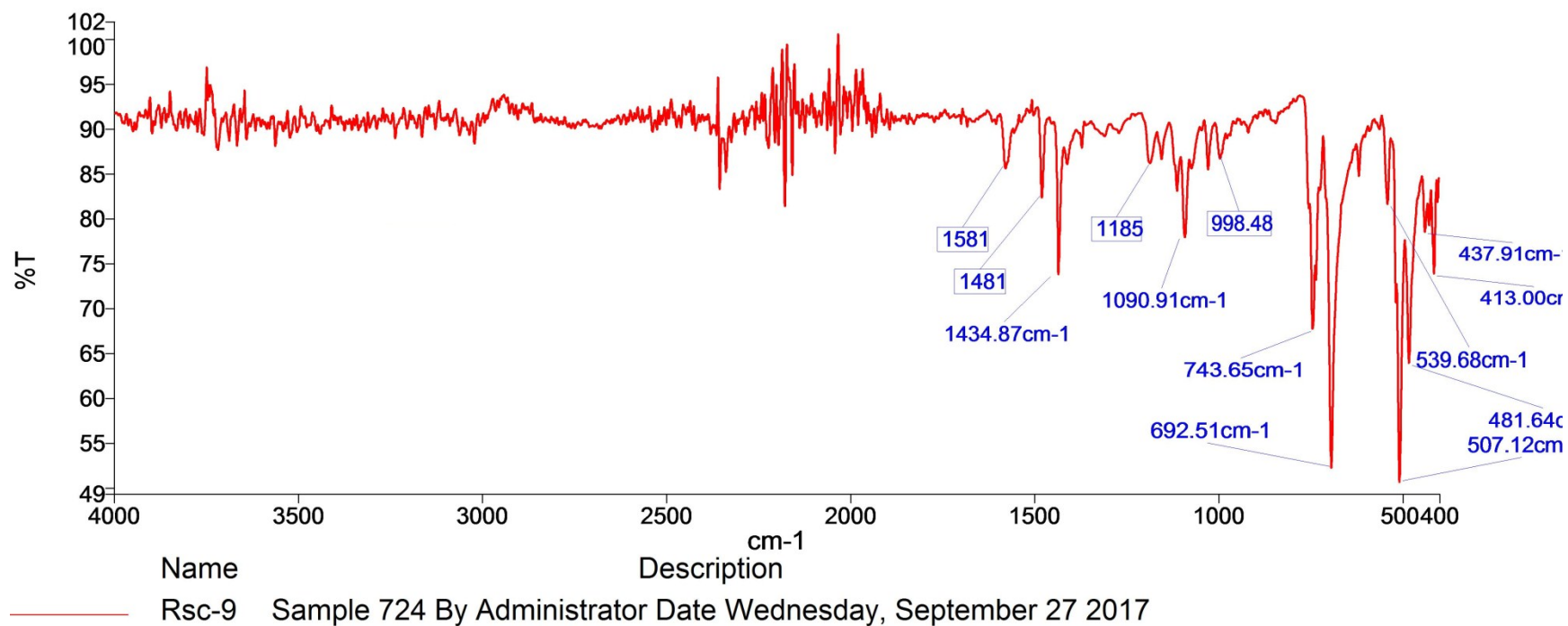


Figure S14. IR spectrum of $[\text{CuCl}(\text{SeC}_5\text{H}_4\text{N})(\text{PPh}_3)_2]$ (**1b**)

Spectrum

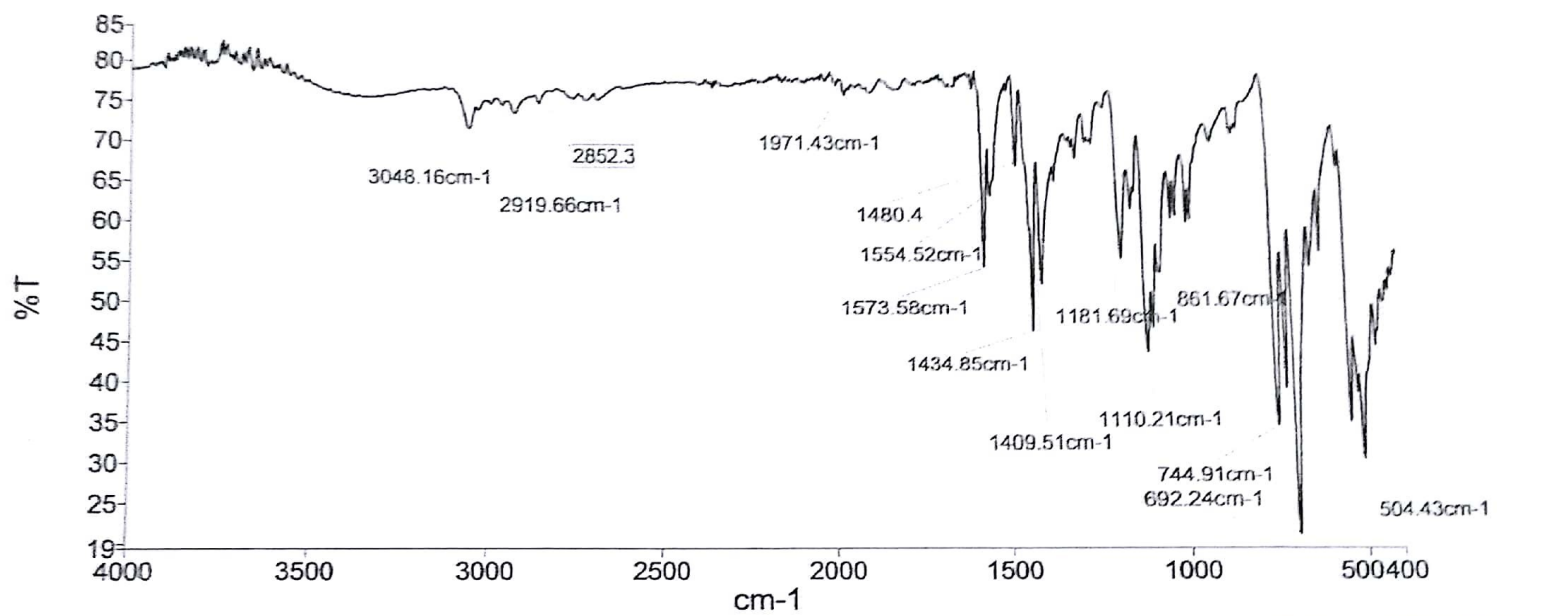
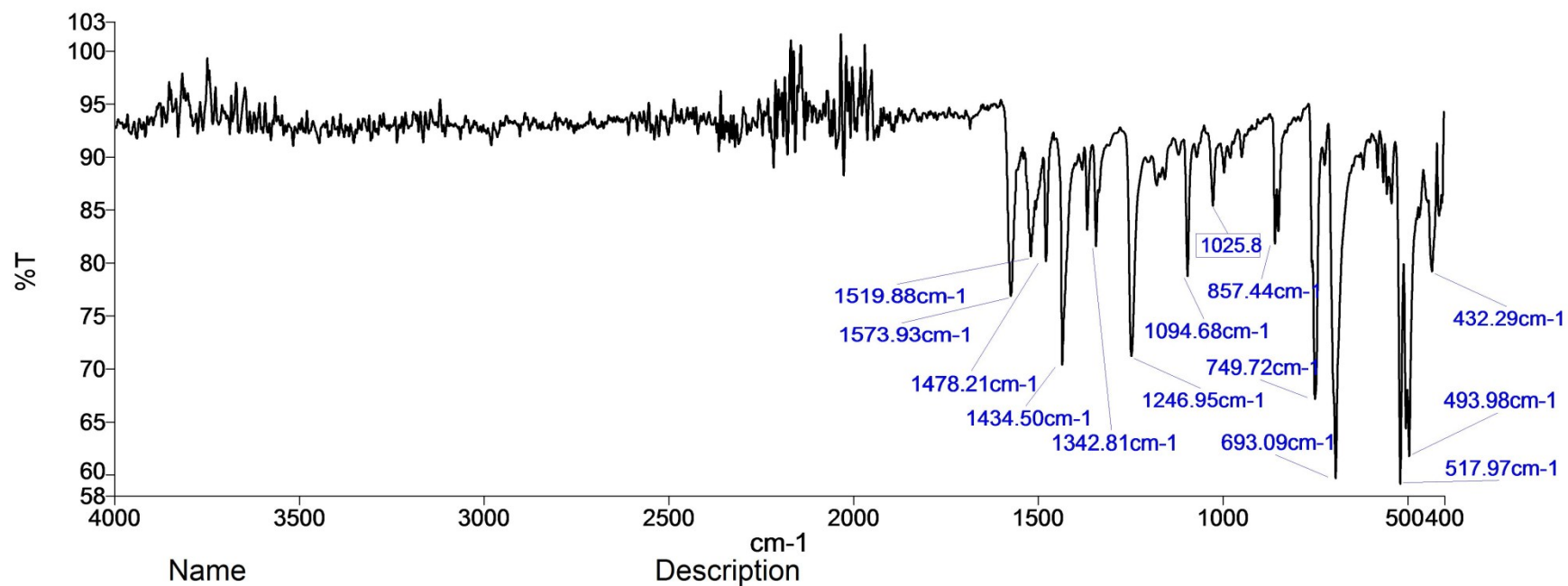


Figure S15. IR spectrum of $[\text{CuCl}(\text{SeC}_5\text{H}_4\text{N}^+\text{H})(\text{PPh}_3)_2]$ ($1b'$)



Name

Description

Rsc-10 Sample 723 By Administrator Date Wednesday, September 27 2017

Figure S16. IR spectrum of $[\text{CuCl}\{2\text{-SeC}_4\text{H}(4, 6\text{-Me})_2\text{N}_2\}(\text{PPh}_3)_2]$ (**1c**)

Spectrum

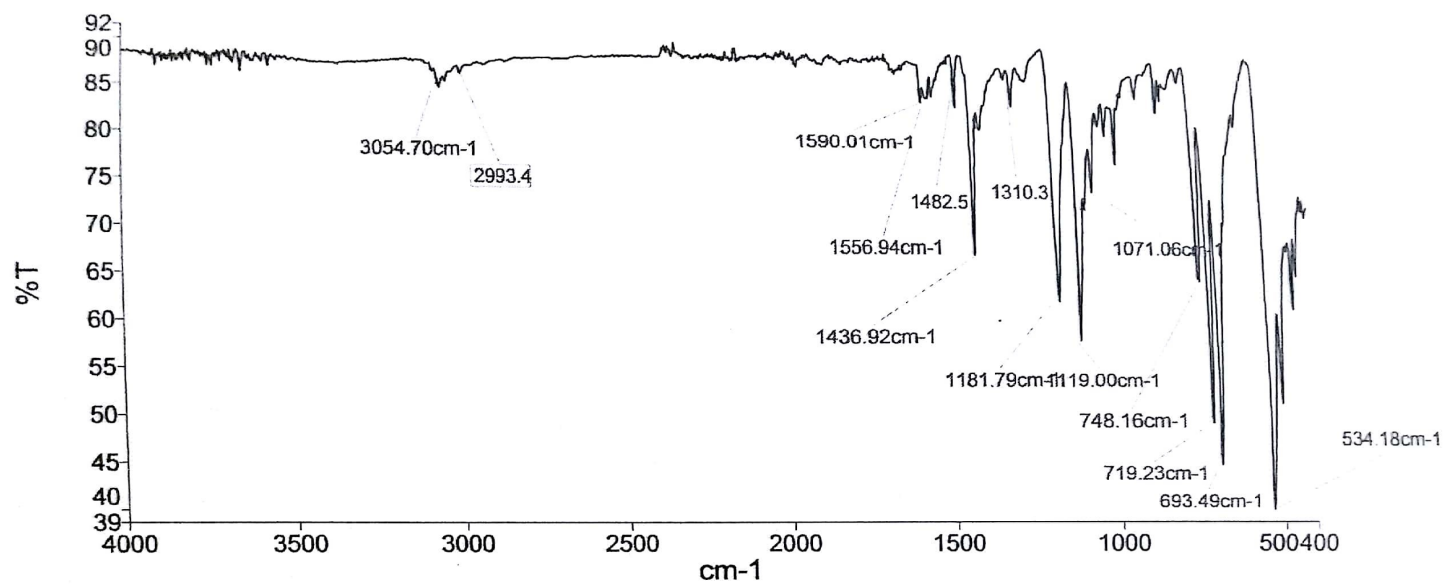


Figure S17. IR spectrum of $[\text{CuCl}\{2\text{-SeC}_4\text{H}(4,6\text{-Me})_2\text{N}_2\text{H}\}(\text{PPh}_3)_2]$ (1C')

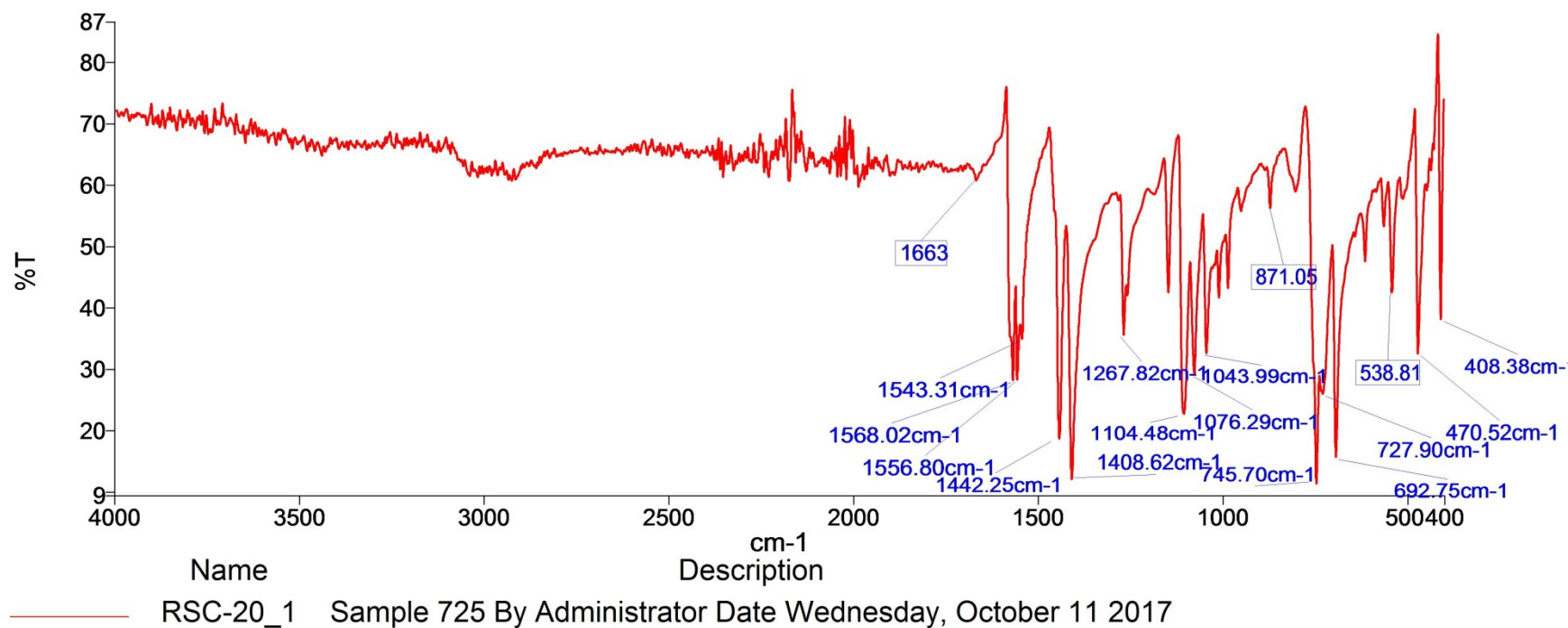


Figure S18. IR spectrum of $[\text{Cu}(\text{SeC}_5\text{H}_4\text{N})_2]_n$ (**2b**)