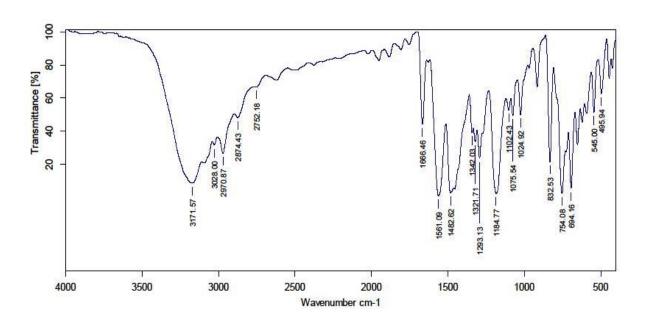
IR Spectroscopy:

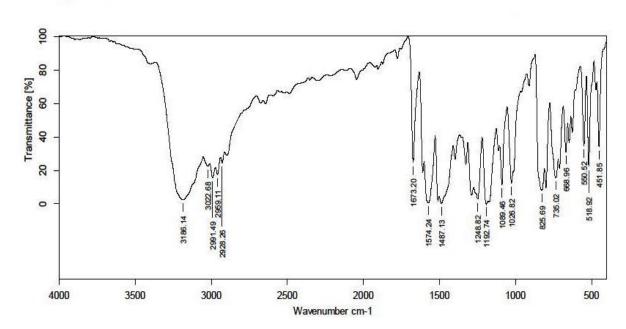
Figure S1: IR Spectroscopy of Compound 5a





212-TRANSt.0 01:33:42 ã 11/04/2020

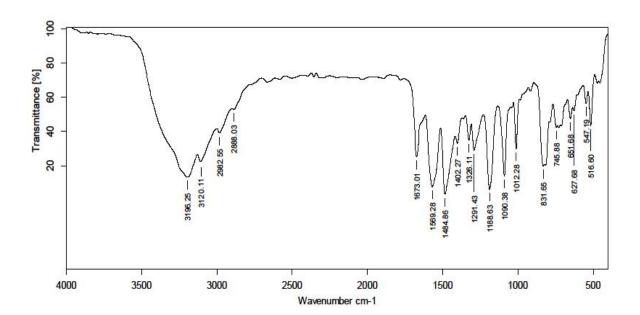
Figure S2: IR Spectroscopy of Compound 5b



222-TRANSt.0 01:38:59 ã 11/04/2020

Figure S3: IR Spectroscopy of Compound 5c

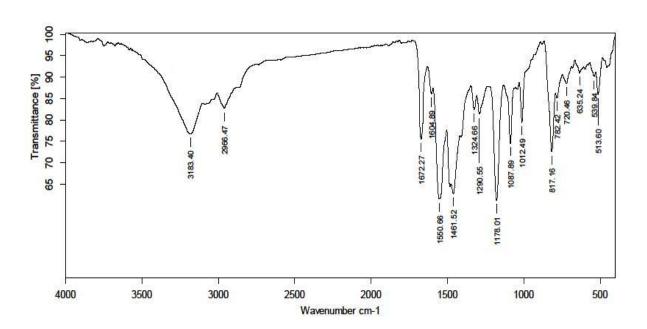




24-TRANSt.0 12:30:28 ä 11/04/2020

Figure S4: IR Spectroscopy of Compound 5d





26-TRANSt.0 01:10:33 ä 11/04/2020

Figure S5: IR Spectroscopy of Compound 5e



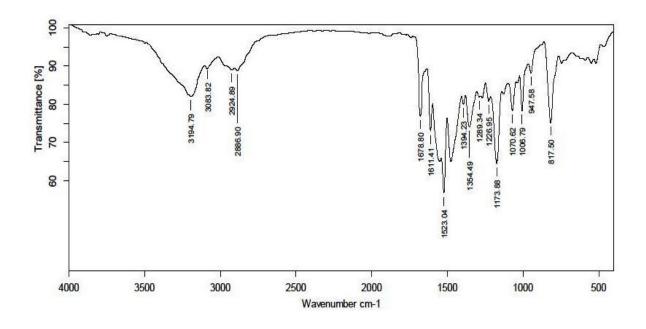


Figure S6: IR Spectroscopy of Compound 5f



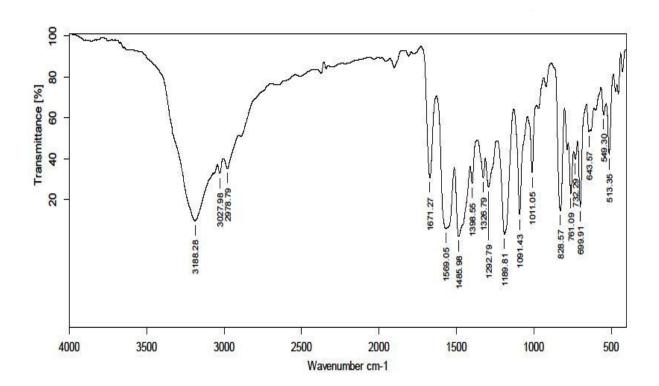


Figure S7: IR Spectroscopy of Compound 5g

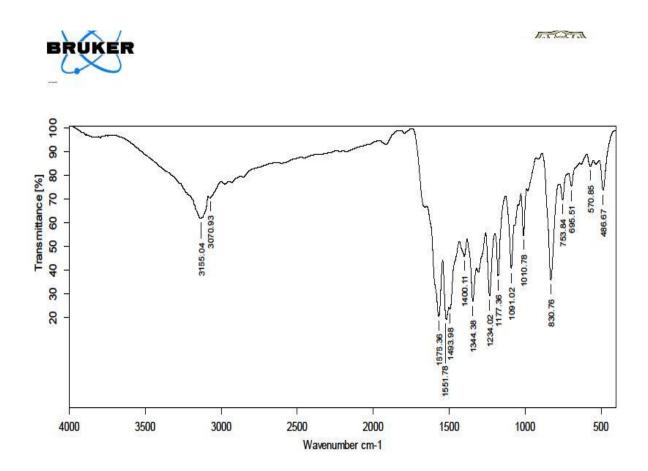
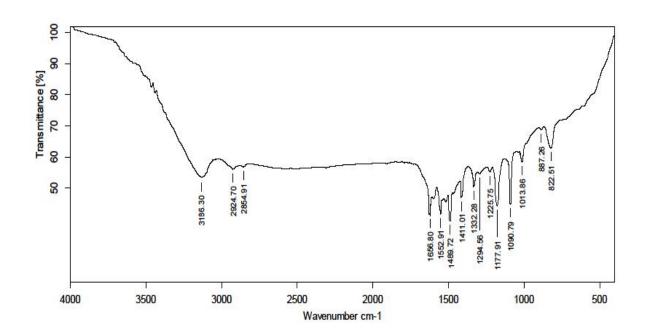


Figure S8: IR Spectroscopy of Compound 5h

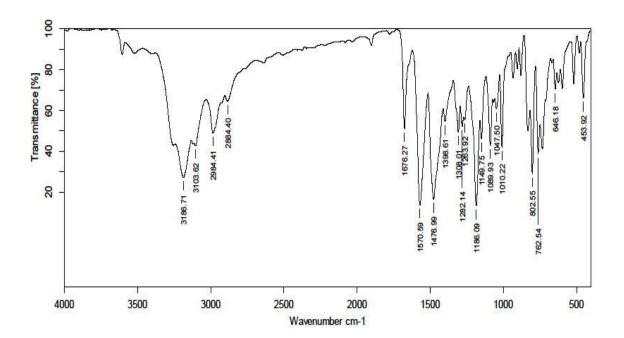




103-TRANSt.0 01:17:11 ä 11/04/2020

Figure S9: IR Spectroscopy of Compound 5i

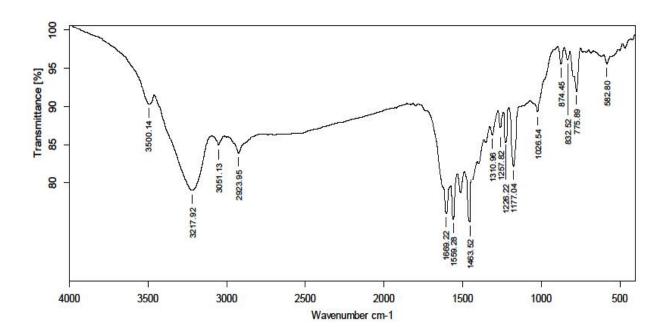




25-TRANSt.0 12:56:39 ä 11/04/2020

Figure S10: IR Spectroscopy of Compound 5j





105-TRANSt.0 01:26:22 ä 11/04/2020

Figure S11: IR Spectroscopy of Compound 10a



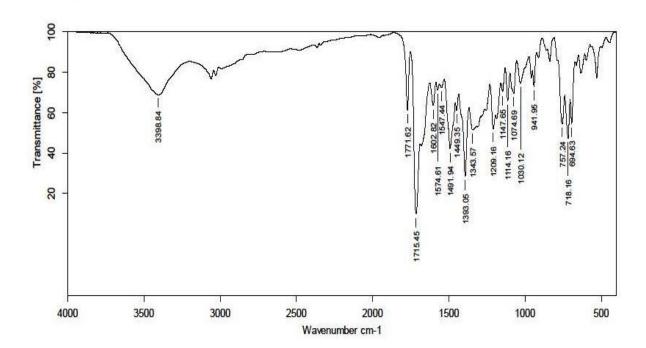


Figure S12: IR Spectroscopy of Compound 10b



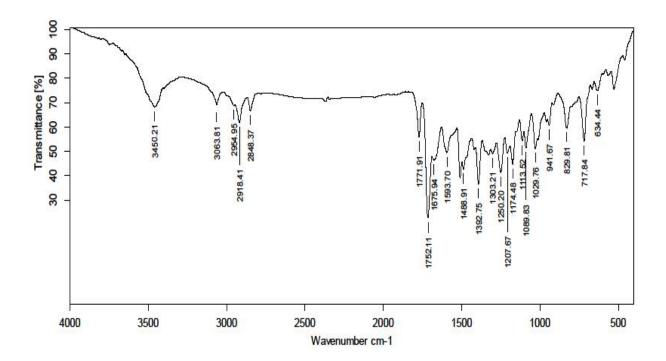


Figure S13: IR Spectroscopy of Compound 10c



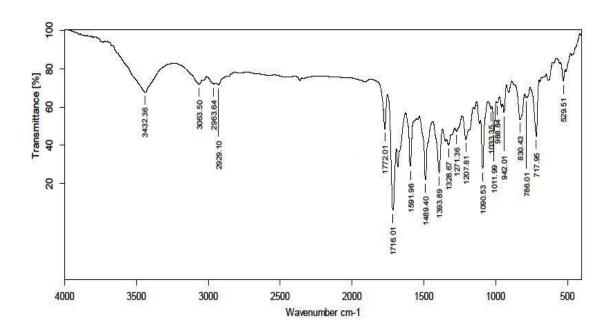


Figure S14: IR Spectroscopy of Compound 10d



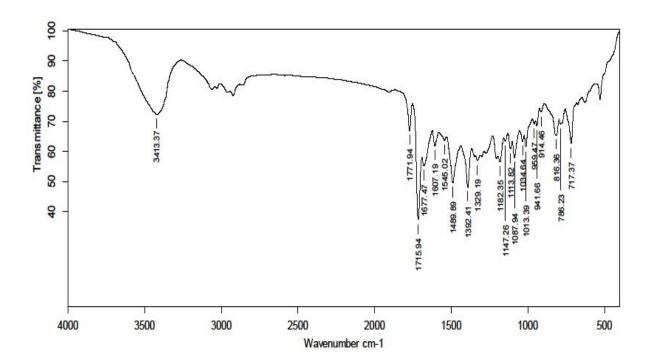


Figure S15: IR Spectroscopy of Compound 10e



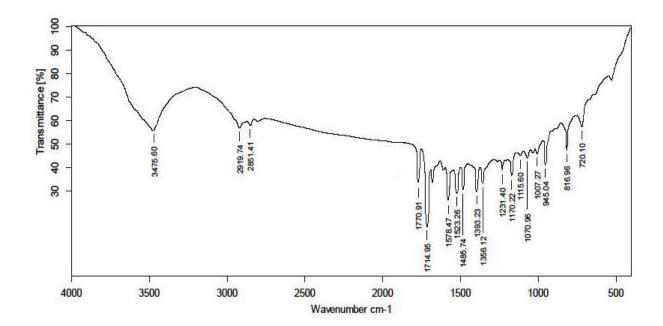


Figure S16: IR Spectroscopy of Compound 10f



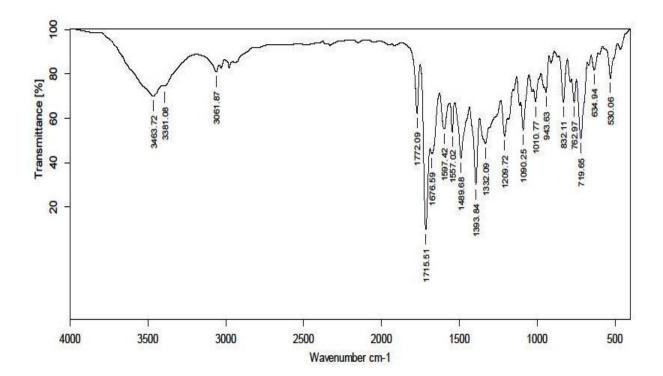


Figure S17: IR Spectroscopy of Compound 10g

BRUKER

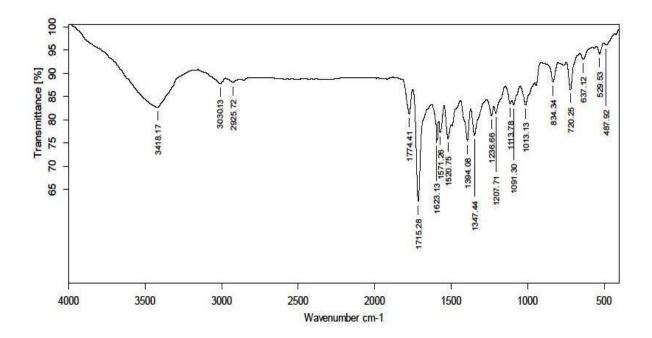


Figure S18: IR Spectroscopy of Compound 10h

BRUKER

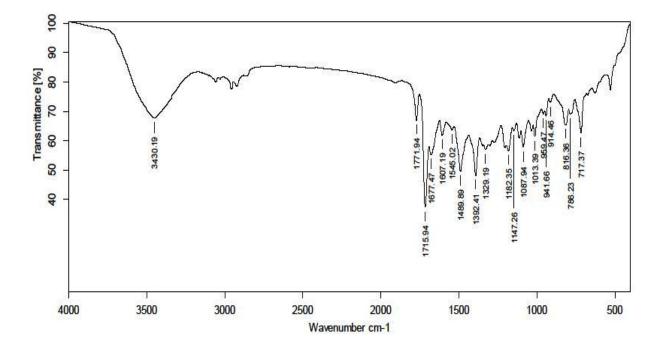


Figure S19: IR Spectroscopy of Compound 10i

BRUKER

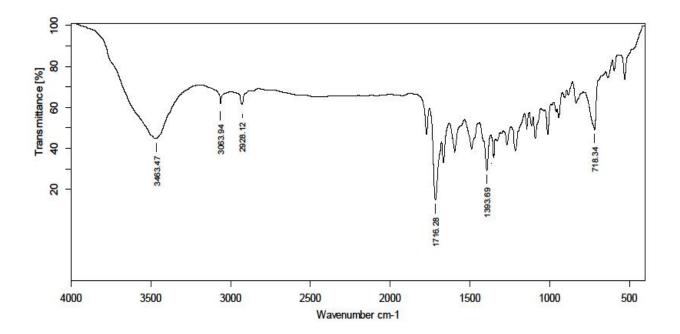
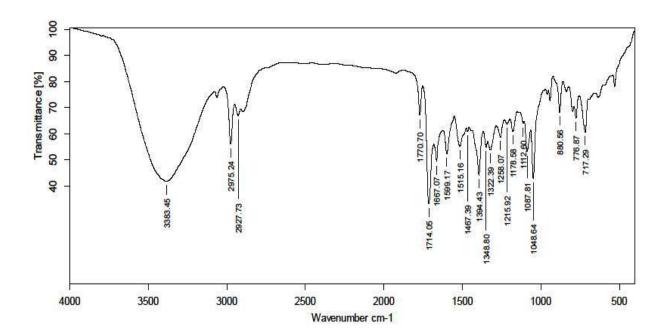


Figure S20: IR Spectroscopy of Compound 10j





¹H NMR Spectroscopy

Figure S21: ¹H NMR Spectroscopy of Compound 5b

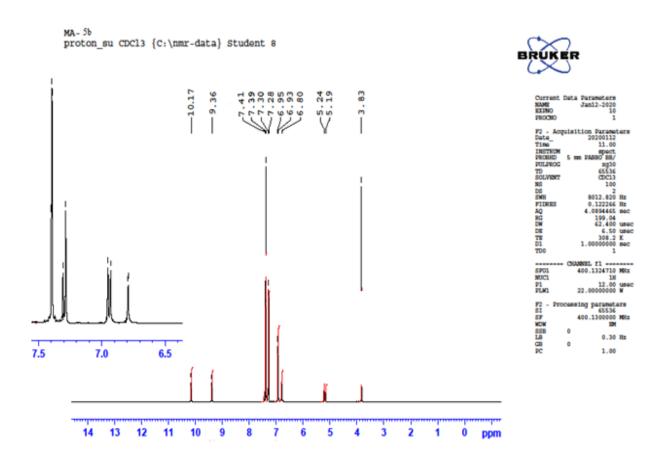


Figure S22: ¹H NMR Spectroscopy of Compound 5c

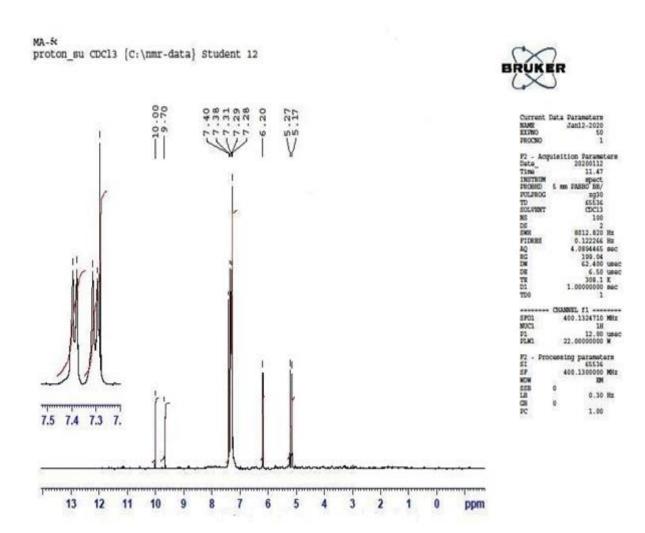


Figure S23: ¹H NMR Spectroscopy of Compound 5d

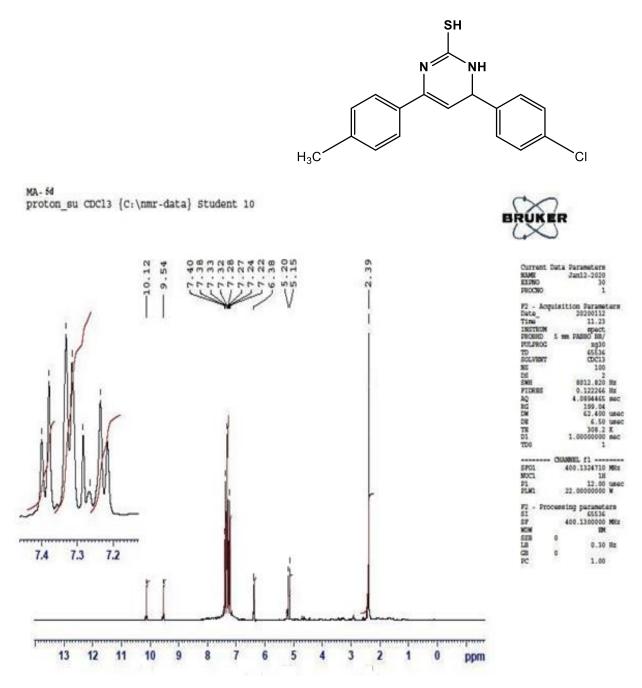


Figure S24: ¹H NMR Spectroscopy of Compound 5e

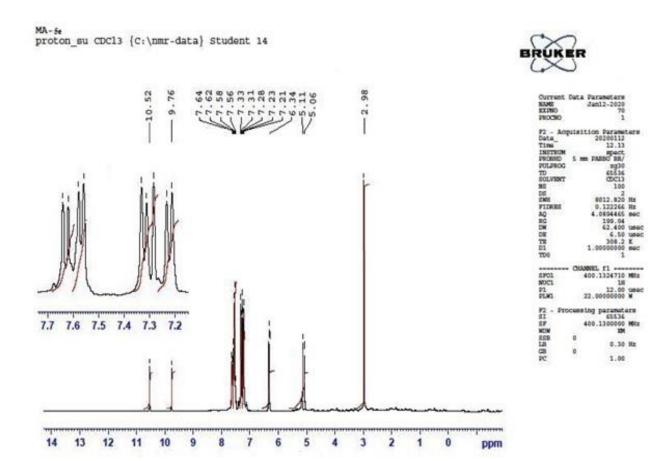


Figure S25: ¹H NMR Spectroscopy of Compound 5f

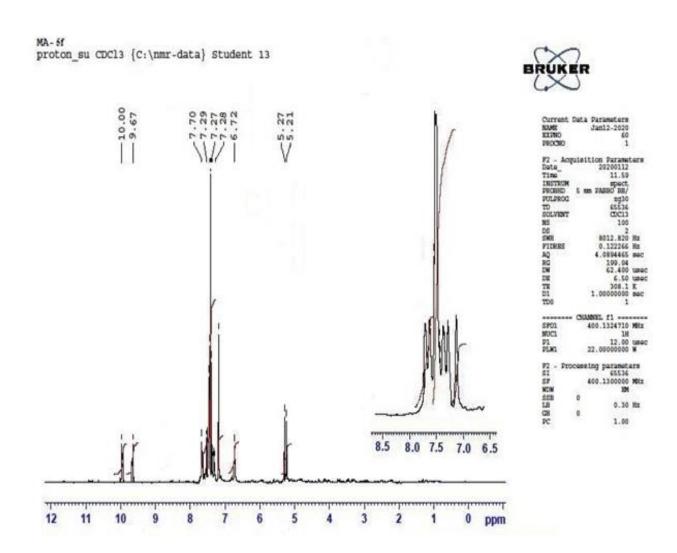


Figure S26: ¹H NMR Spectroscopy of Compound 5g

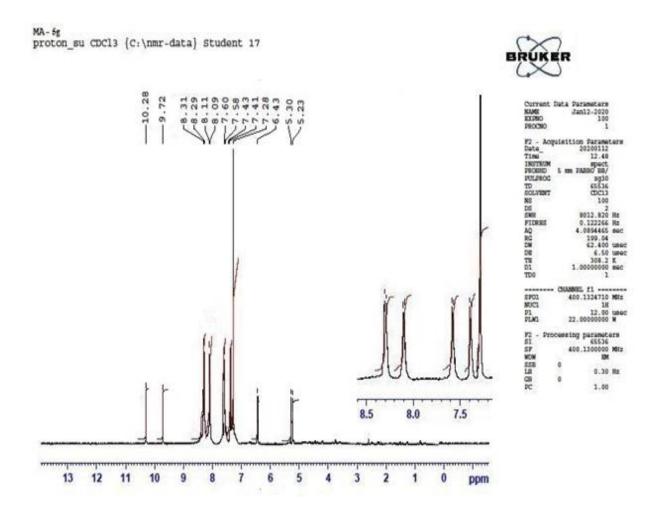


Figure S27: ¹H NMR Spectroscopy of Compound 5h

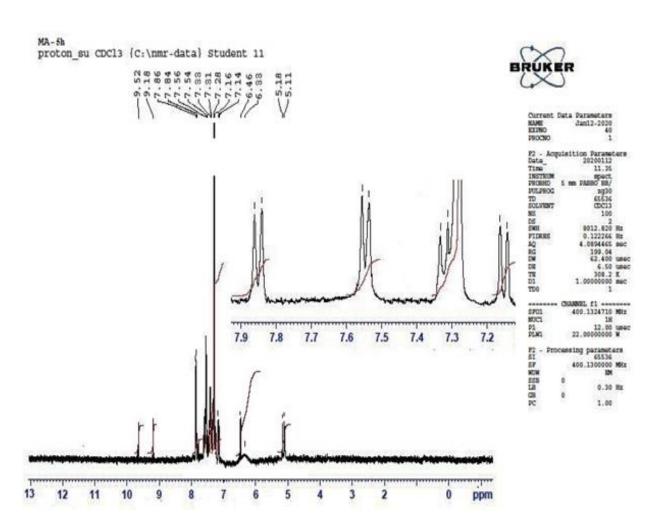


Figure S28: ¹H NMR Spectroscopy of Compound 5i

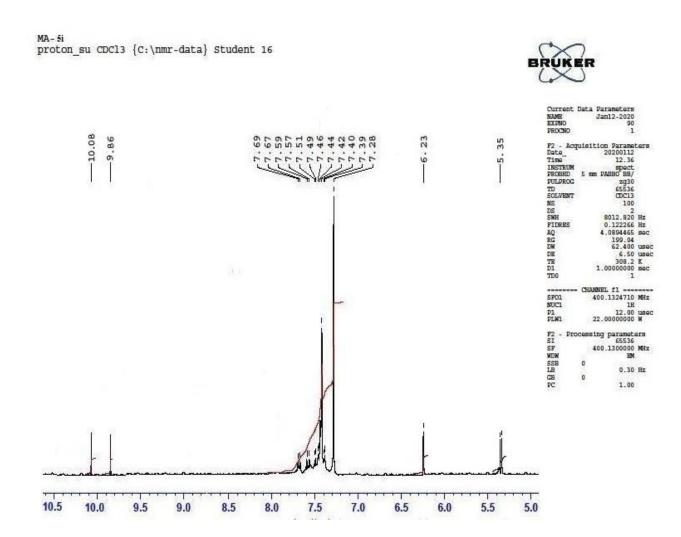


Figure S29: ¹H NMR Spectroscopy of Compound 5j

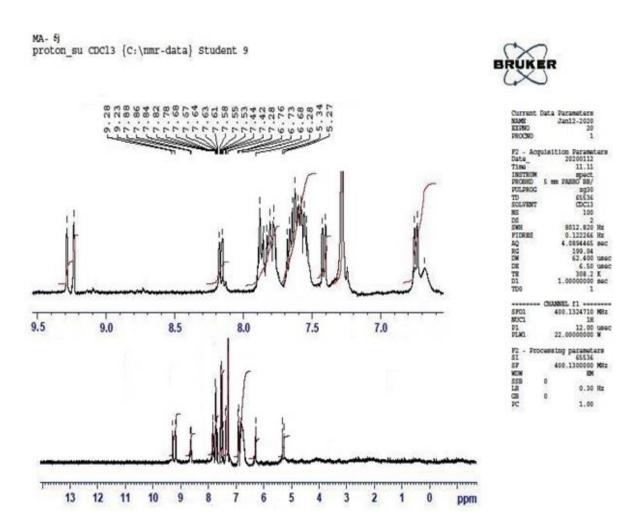


Figure S30: ¹H NMR Spectroscopy of Compound 10a

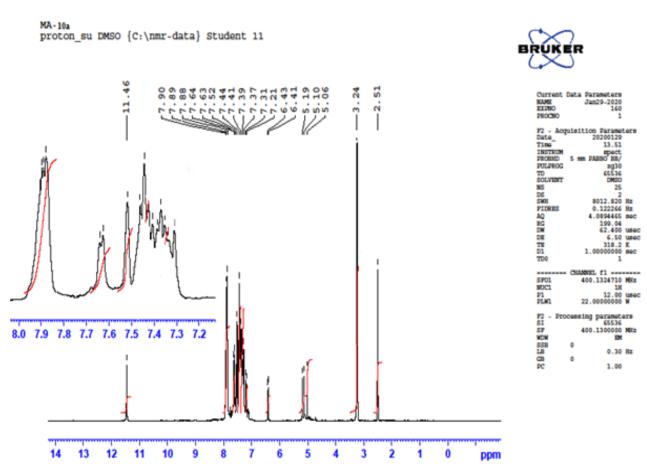


Figure S31: ¹H NMR Spectroscopy of Compound 10b

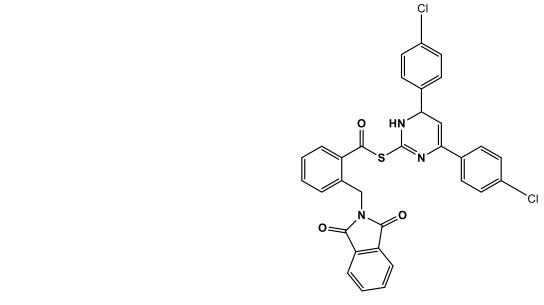




8.0 7.8 7.6 7.4 7.2 7.0 6.8	
13 12 11 10 9 8 7 6 5	4 3 2 1 0 ppm

NAME EXPNO PROCE		Jan29-		
Date_Time INSTR PROBH PULPR TO SOLVE NS DS SMH FIDRE AQ RG DM DE TE	D S mm	9012 0.12 4.089	0129 3.56 pect 88/ 2930 5536 DMSD 25 2.820 2266 4465 0.97 1.400 6.50	Hz Hz sec usec usec
TD0	CHAN	1.0000	1	
SPOL		00.132		
NUC1			18	-
P1		1		usec
PLKI	2	2.0000	0000	M
SI SP WDW			5536	
SSB	0		0.30	Иz
CB	0		-134	-
PC			1.00	

Figure S32: ¹H NMR Spectroscopy of Compound 10c



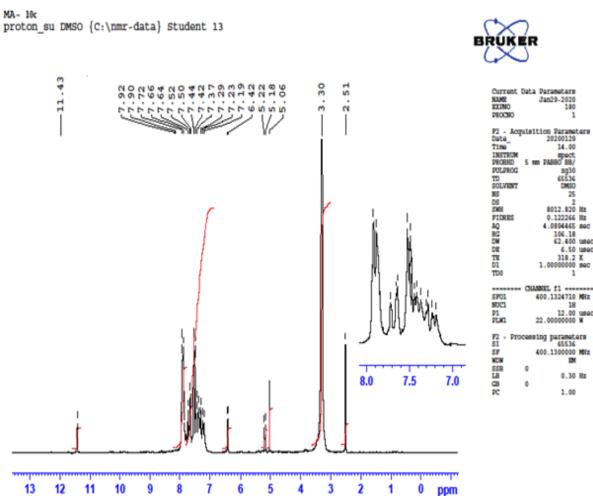
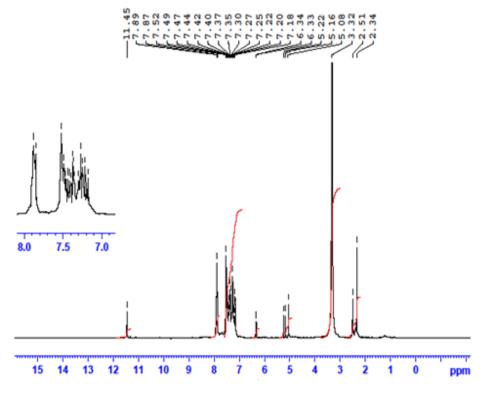


Figure S33: ¹H NMR Spectroscopy of Compound 10d

MA- 10d proton_su DMSO {C:\nmr-data} Student 15



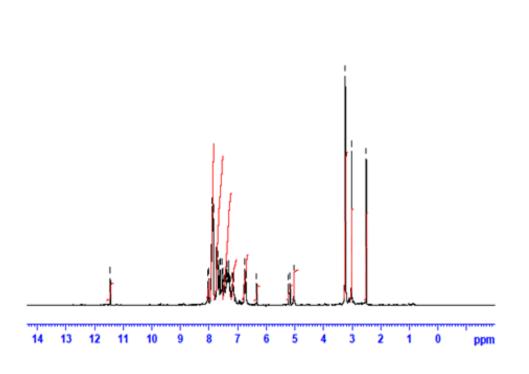


Current Dat NAME EXIMO PROCMO	Jan29-2020 200 1
Time INSTRUM	20200129 14.10 spect. sm PASBO 88/ 2930 65536 CMSO 25 8012.820 Hz 0.122266 Hz 4.099465 sec 68.22 62.400 usec 6.50 usec 6.50 usec 1318.1 K 1.0000000 sec
SPO1 NUC1 P1 PLW1	ADDREL f1
SSB 0 LB GB 0 PC	0.30 Hz 1.00

Figure S34: ¹H NMR Spectroscopy of Compound 10e

MA-10e proton_su DMSO {C:\nmr-data} Student 16





NAME	Jan29-2020
EXPNO	210
PROCNO	1
PROCESS	
	ition Parameters
Date	20200129
Time	14.15
INSTRUM	spect
	mm PARSO SS/
PULPROG	2230
TD	65536
SOLVENT	
	DMSO
NS	25
DS	2
SWI	8012.820 Hz
FIDRES	0.122266 Hz
AQ	4.0894465 pec
RG	199.04
EW	62,400 usec
DE	6.50 usec
TE	318.2 K
D1	1.00000000 sec
TDO	1
O	DANKE fl
SP01	
SFOL	400.1324710 MKz
SFO1 NUCL	400.1324710 MHz 1H
SPO1 NUC1 P1	400.1324710 MRz 1H 12.00 umac
SFO1 NUCL	400.1324710 MHz 1H
SPO1 NUC1 P1 PLW1	400.1324710 MRz 1H 12.00 usec 22.00000000 W
SPO1 NUC1 P1 PLM1 F2 - Process	400.1324710 MRz 1M 12.00 usec 22.00000000 W
SPO1 NUC1 P1 PLW1 F2 - Process SI	400.1324710 MRz 1H 12.00 usec 22.00000000 W ssing parameters 65536
SPO1 NUC1 P1 PLM1 F2 - Process	400.1324710 MRz 1M 12.00 usec 22.00000000 W
SPO1 NUC1 P1 PLW1 F2 - Process SI	400.1324710 MRz 1H 12.00 usec 22.00000000 W ssing parameters 65536
SPO1 NUC1 P1 PLW1 F2 - Proces SI SP WEW	400.1324710 MRz 12.00 usec 22.00000000 W 18ing parameters 65536 400.1300000 MRz
SFO1 NUC1 P1 PLW1 F2 - Proces S1 SF WDW SSB 0	400.1324710 MRz 138 12.00 usec 22.00000000 W using parameters 65534 400.1300000 MRz EM
SFO1 NUC1 P1 PLW1 F2 - Proces SI SF WDW SSB 0 LB	400.1324710 MRz 12.00 usec 22.00000000 W 18ing parameters 65536 400.1300000 MRz
SPO1 NUC1 P1 PLW1 F2 - Proces S1 SF WIN SSB 0 LB GB 0	400.1324710 MRz 12.00 usec 22.00000000 W ising parameters 65534 400.1300000 MRz ISM 0.30 Hz
SFO1 NUC1 P1 PLW1 F2 - Proces SI SF WDW SSB 0 LB	400.1324710 MRz 138 12.00 usec 22.00000000 W using parameters 65534 400.1300000 MRz EM
SPO1 NUC1 P1 PLW1 F2 - Proces S1 SF WIN SSB 0 LB GB 0	400.1324710 MRz 12.00 usec 22.00000000 W ising parameters 65534 400.1300000 MRz ISM 0.30 Hz

Figure S35: ¹H NMR Spectroscopy of Compound 10f

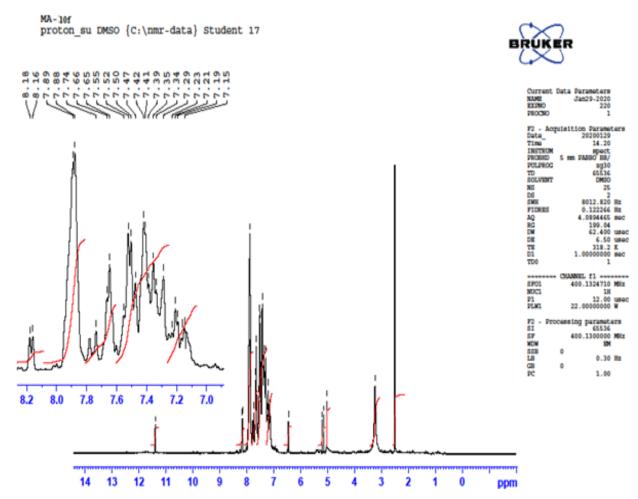


Figure S36: ¹H NMR Spectroscopy of Compound 10g

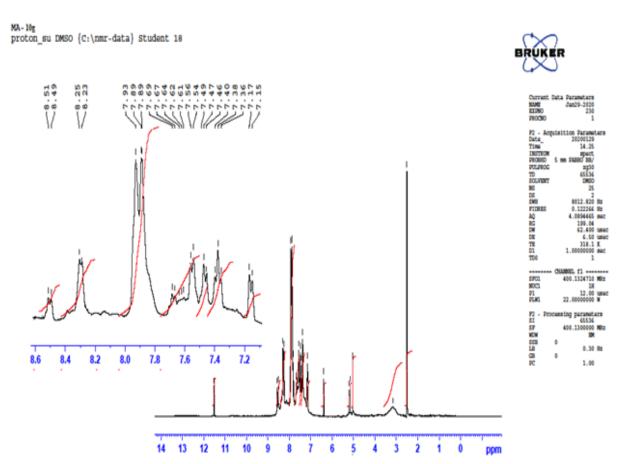


Figure S37: ¹H NMR Spectroscopy of Compound 10h

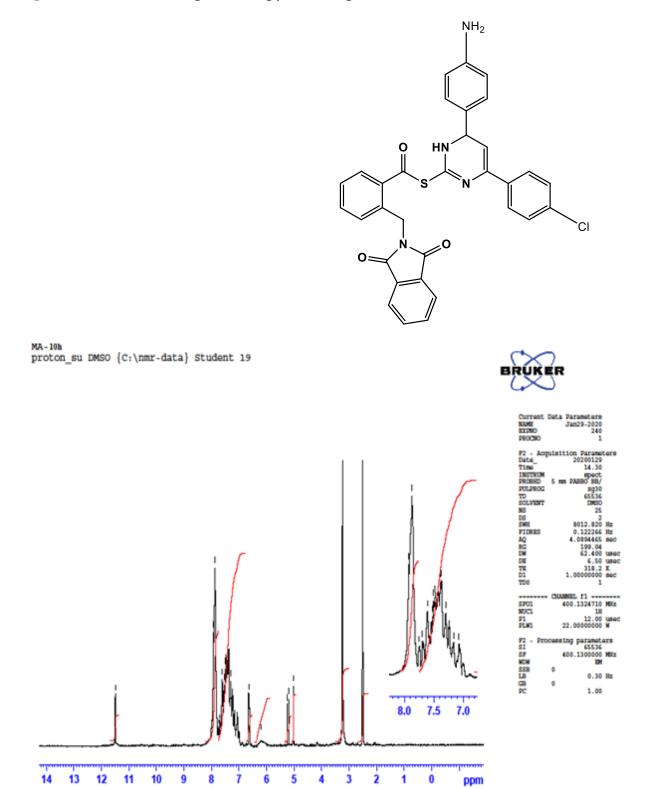
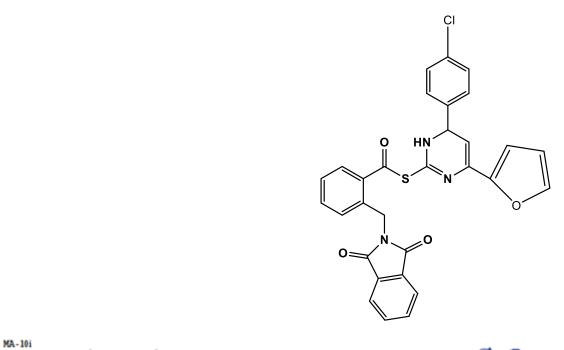
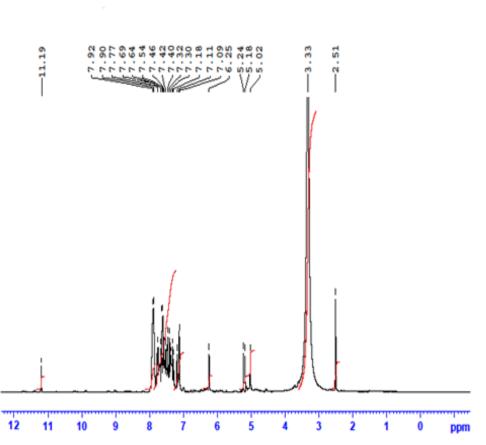


Figure S38: ¹H NMR Spectroscopy of Compound 10i

proton_su DMSO {C:\nmr-data} Student 14





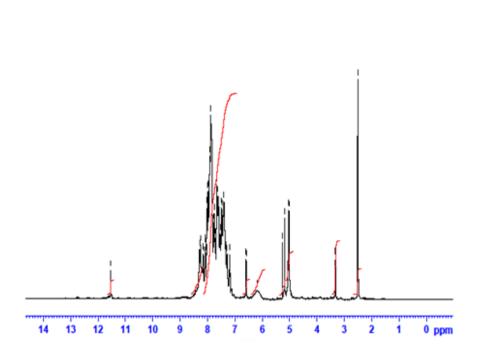


Current NAME EXPNO PROCNO	Data Parameters Jan29-2020 190 1
F2 - Acq Date_ Time INSTRUM PROBE TD SOLVENT NS SWH FILERS AQ RG DW DB TE DI TD TD	Nisition Parameters 20200129 14.05 spect 5 mm PABBO 88/ mg30 65516 DMSO 25 2 8012.820 Hz 0.12266 Hz 4.0804465 sec 106.18 62.400 usec 6.50 usec 118.2 K 1.00000000 sec 118.2 T 1.00000000 sec
SPO1 MUC1 P1 PLM1	GUARKE f1
F2 - Pro SI SF WDW SSB LB GB PC	0 0.30 Hz 0 1.00

Figure S39: ¹H NMR Spectroscopy of Compound 10j

MA-10j proton_su DMSO {C:\nmr-data} Student 20





Current Da NAME EXPMO PROCNO	sta Parameters Jan29-2020 250
Date_ Time INSTRUM	Estion Parameters 2020023 14.35 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.36 25.3
SPO1 NUC1 P1 PLW1	MANNEL f1
SI SF WOW SSB LB	05536 400.130000 MRz 100 0.30 Hz

¹³C NMR Spectroscopy

Figure S40: ¹³C NMR Spectroscopy of Compound 5a

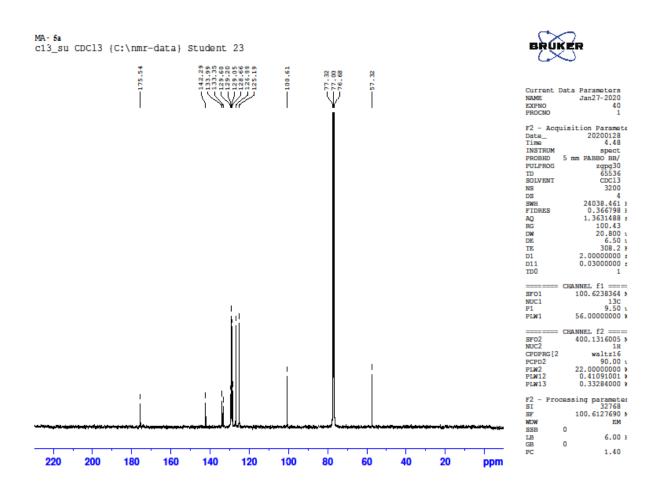


Figure S41: ¹³C NMR Spectroscopy of Compound 5d

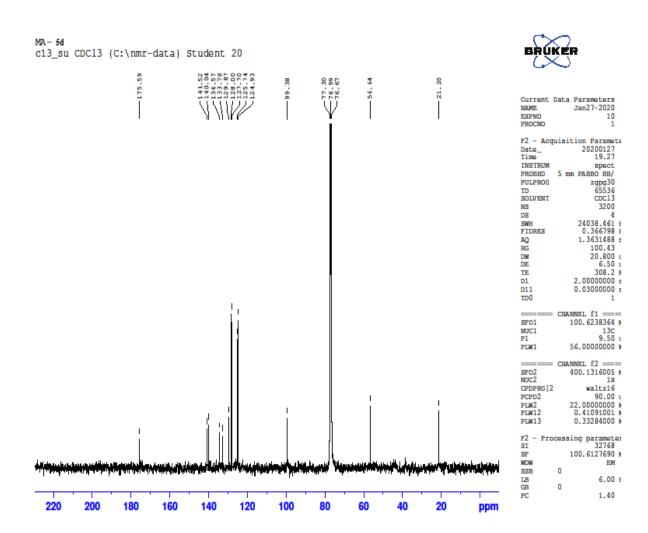


Figure S42: ¹³C NMR Spectroscopy of Compound 5g

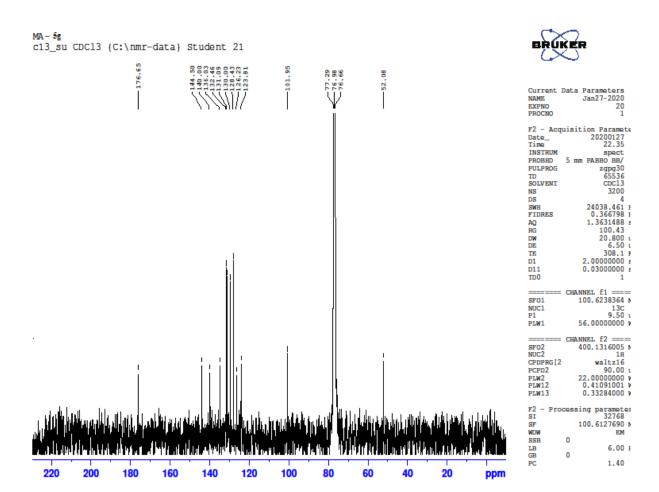


Figure S43: ¹³C NMR Spectroscopy of Compound 5h

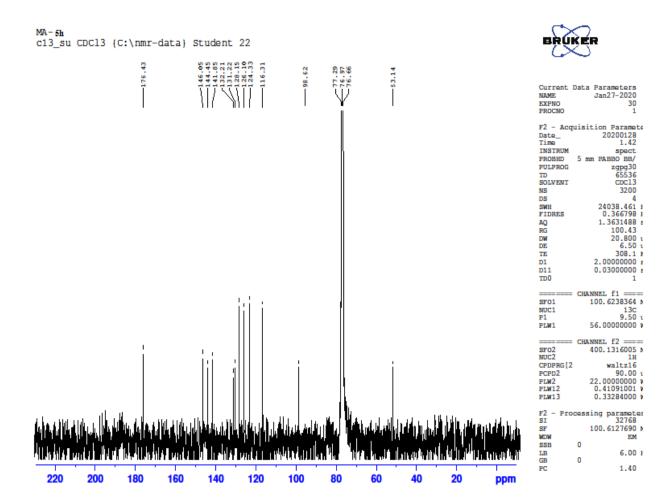


Figure S44: ¹³C NMR Spectroscopy of Compound 10a

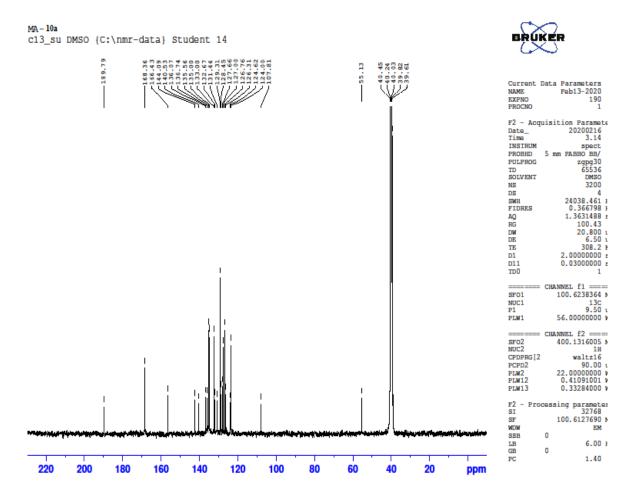


Figure S45: ¹³C NMR Spectroscopy of Compound 10b

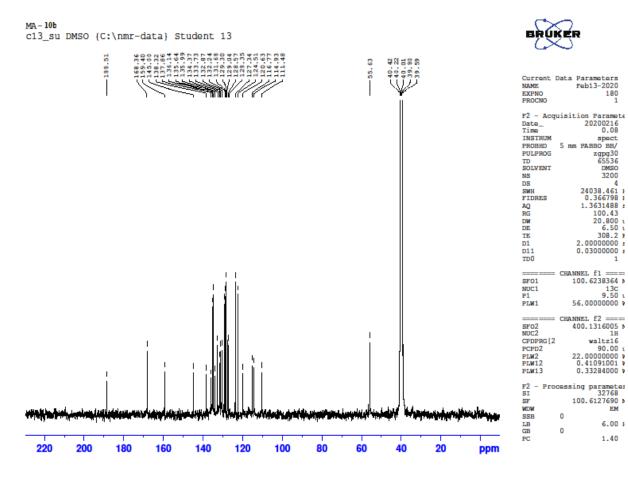


Figure S46: ¹³C NMR Spectroscopy of Compound 10d

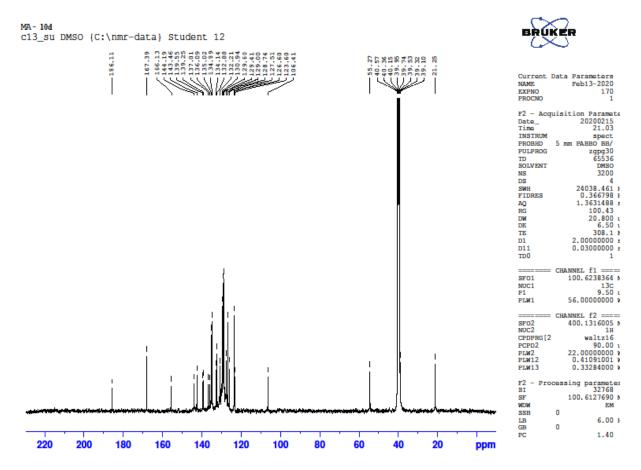


Figure S47: ¹³C NMR Spectroscopy of Compound 10g

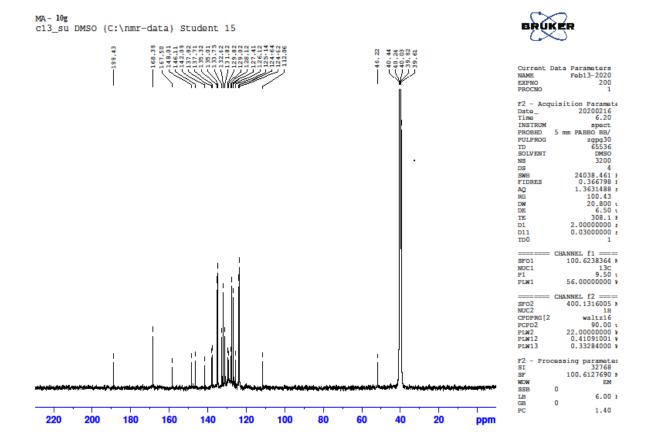
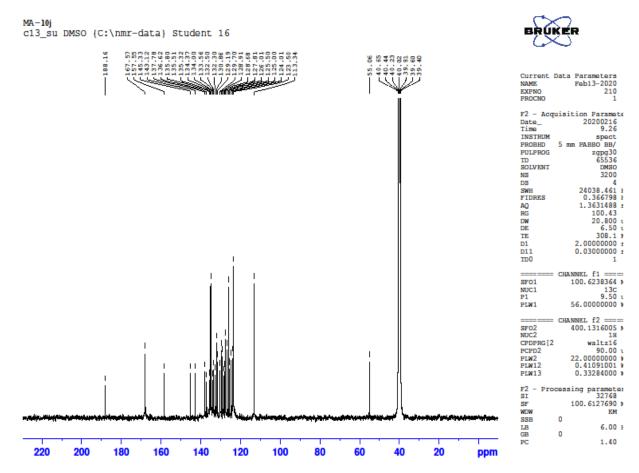


Figure S48: ¹³C NMR Spectroscopy of Compound 10j



Mass Spectroscopy

Figure S49: Mass Spectroscopy of Compound 5b

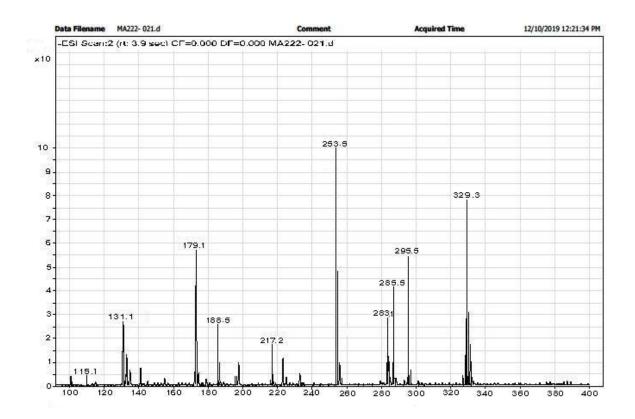


Figure S50: Mass Spectroscopy of Compound 5c

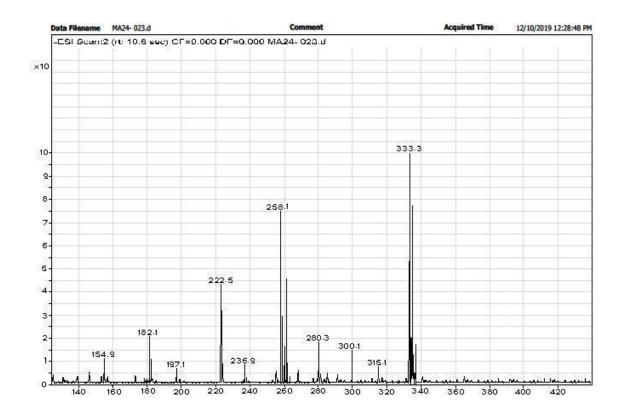


Figure S51: Mass Spectroscopy of Compound 5d

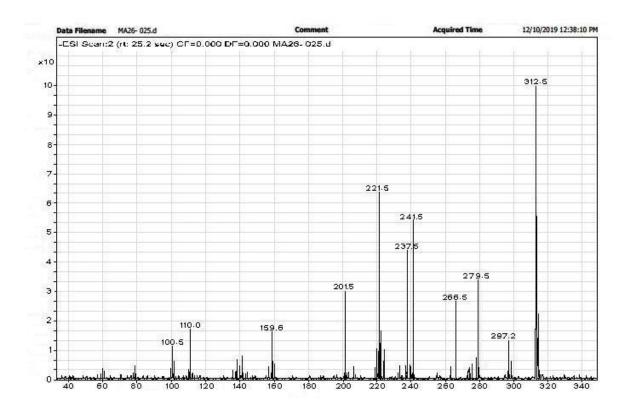


Figure S52: Mass Spectroscopy of Compound 5e

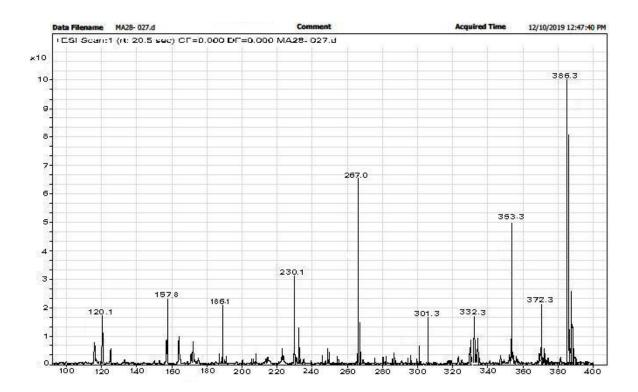


Figure S53: Mass Spectroscopy of Compound 5f

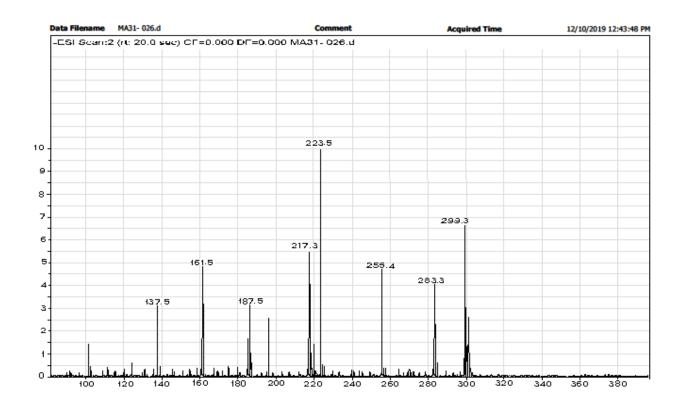


Figure S54: Mass Spectroscopy of Compound 5g

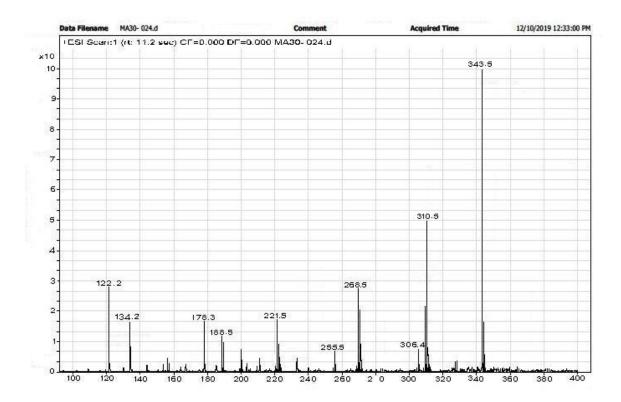


Figure S55: Mass Spectroscopy of Compound 5h

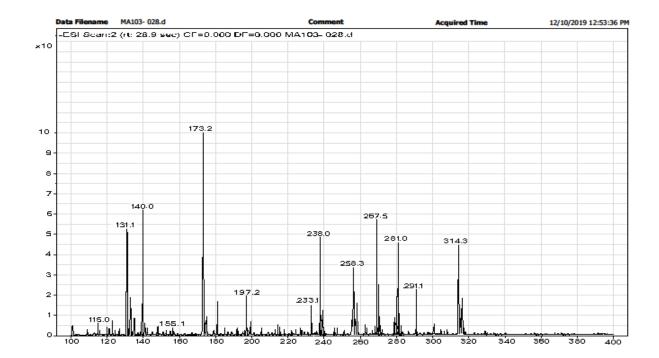


Figure S56: Mass Spectroscopy of Compound 5i

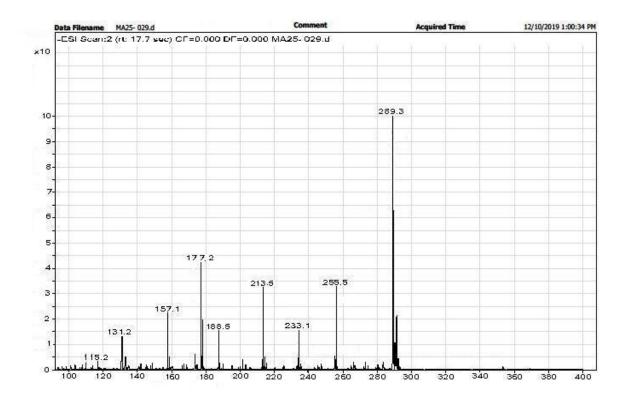


Figure S57: Mass Spectroscopy of Compound 5j

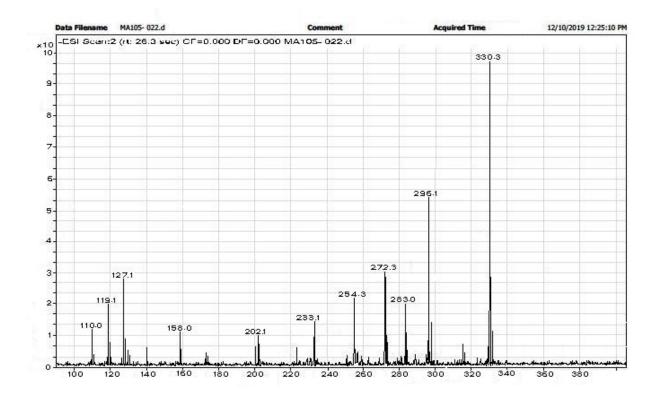


Figure S58: Mass Spectroscopy of Compound 10a

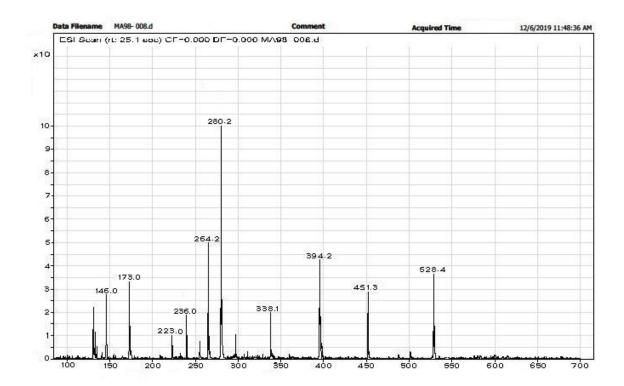


Figure S59: Mass Spectroscopy of Compound 10b

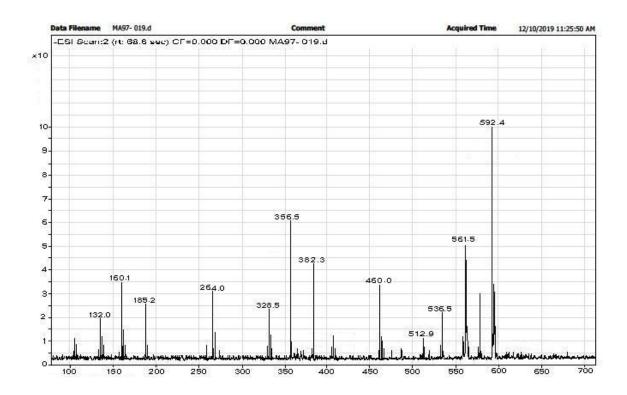


Figure S60: Mass Spectroscopy of Compound 10c

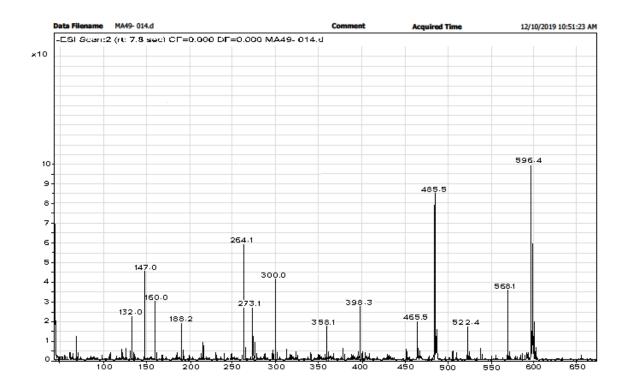


Figure S61: Mass Spectroscopy of Compound 10d

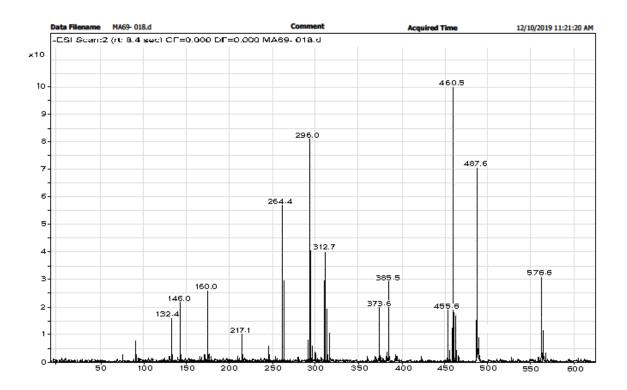


Figure S62: Mass Spectroscopy of Compound 10e

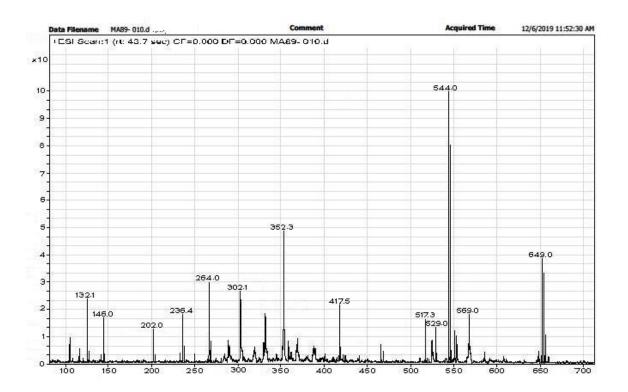


Figure S63: Mass Spectroscopy of Compound 10f

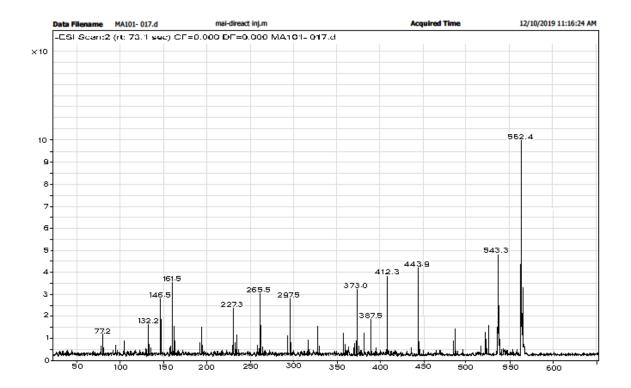


Figure S64: Mass Spectroscopy of Compound 10g

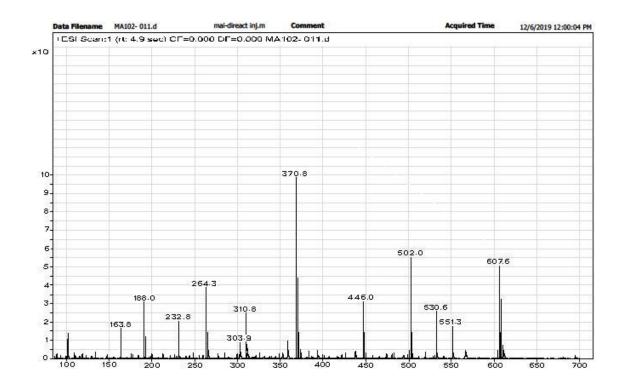


Figure S65: Mass Spectroscopy of Compound 10h

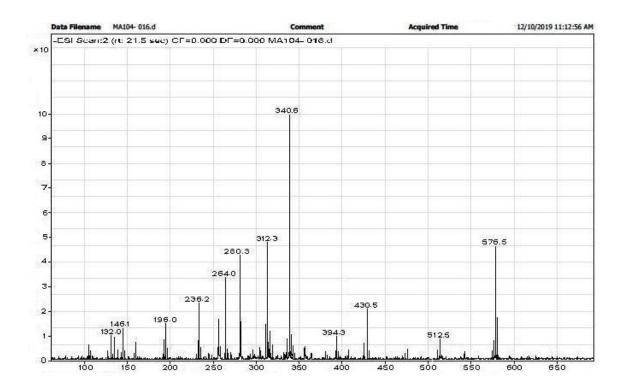


Figure S66: Mass Spectroscopy of Compound 10i

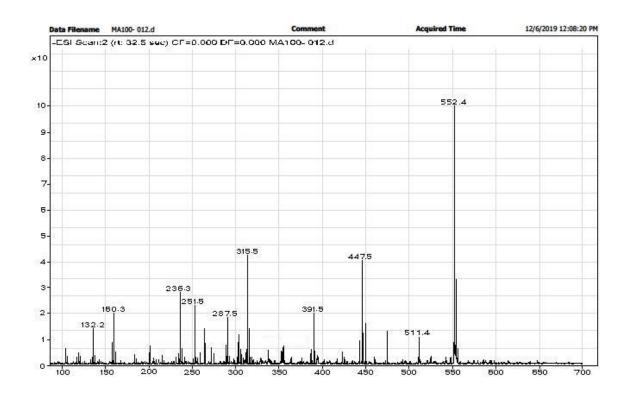


Figure S67: Mass Spectroscopy of Compound 10j

