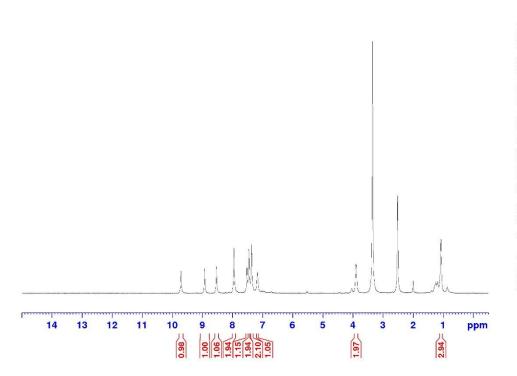
### <sup>1</sup>H NMR spectrum of compound **5a**

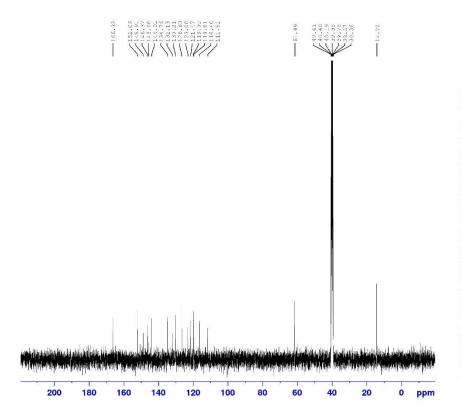






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EXPNO	3	
PROCNO		
F2 = 2cm	isition Parame	tera
Date_	20171107	CELD
Time	17.10	h
INSTRUM	spect	
	Z1C8618 0941 (	
PULPROG	za30	
	2g3U 65536	
TO		
SOLVENI	DMSC	
ZS	8	
28		
SWH	8012.820	
FIDRES	0.244532	
AQ	4.0894465	
RG	142.45	
⊃W	62.400	
⊃E		usec
TE	296.1	
D1	1.00000000	sec
TD0	2	
SFO1	400.1324708	MHz
NUC1	18	
Pl	14.00	usec
PLW1	13.00000000	37
F2 - Proc	essing paramet	ers
SI	65536	
SE	400.1300000	MHz
WDW	EN	
SSB	0	
1/3	0.30	Hz
GB	0	
	1.00	

# <sup>13</sup>C NMR spectrum of compound **5a**

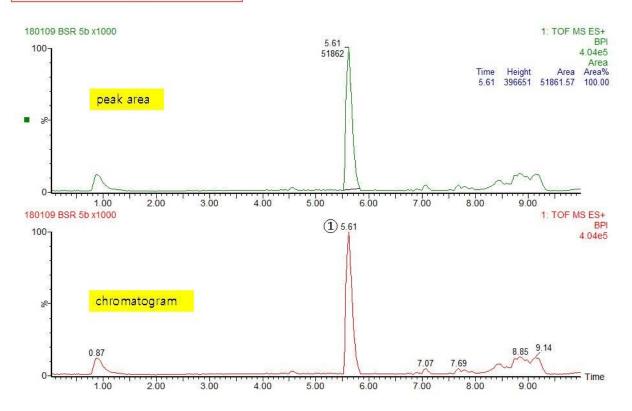




Current	Do= 0	70	MAN	ntr		
NAME	Julu	- 4			130	
EXPNO					100	
PROCNO					1	
F2 - Acq	uisi					ers
Date_			201	171	110	
Time					.11	n
INSTRUM					9.00	
PROBHD	210	36_				
PULFROG				zgp 65	g30 536	
SOLVENT				01	MSO	
NS					181	
DS					4	
SWE		2	403	.85	461	Hz
FIDRES			0.7	733	596	Ez
AQ		1				sec
RG					.73	
DW			-	20.	800	usec
DE						usec
TE					6.8	
D1						sec
D11		С.	030	000:	300	sec.
IDO					1	2000
SFC1		100	. 62			MHz
NUC1					130	usec
PLW1		4.7	000		000	
SFO2						MHz
NUC2		400	. 1 -	010.	13	
CPDPRG[2				alt:		
PCPD2			79.5			used
PLW2		13	nno		000	
PLW12					200	
PLW13					001	
F2 - Pro	cess	ing	202			ers
SI					768	
SF		100	. 61	127		MEz
MDM					EM	
SSB	0					
LB				1	.00	Hz
GB	0			33	3.4	
20				-	.40	

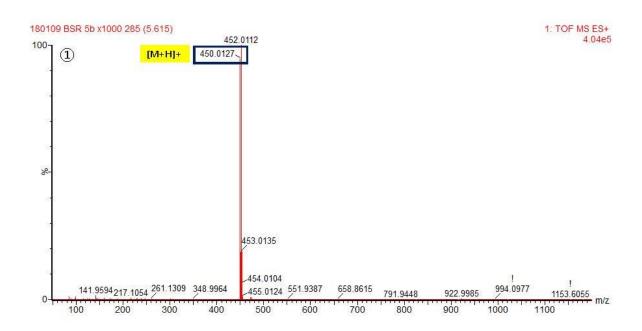
### Purity and HRMS of compound 5a

#### 2. 5b: chromatogram / area

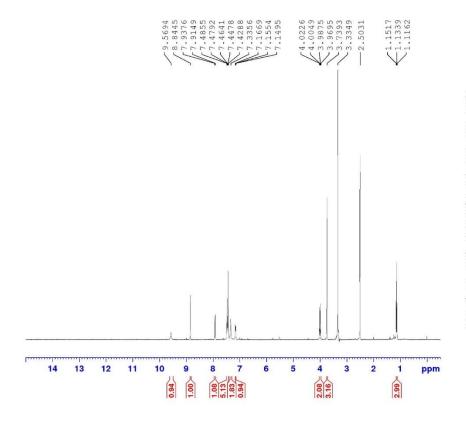


2. 5b: mass spectrum

Molecular formula: C<sub>18</sub>H<sub>16</sub>BrN<sub>3</sub>O<sub>4</sub>S Exact mass: 449.0045 113.2589 (4+) 150.6760 (3+) 225.5101 (2+) 450.0123 (1+)



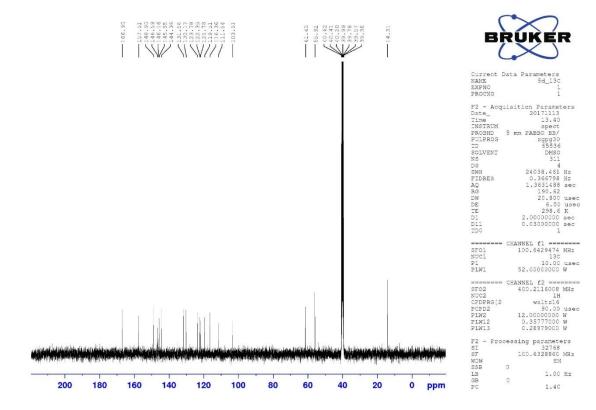
# <sup>1</sup> NMR spectrum of compound **5b**





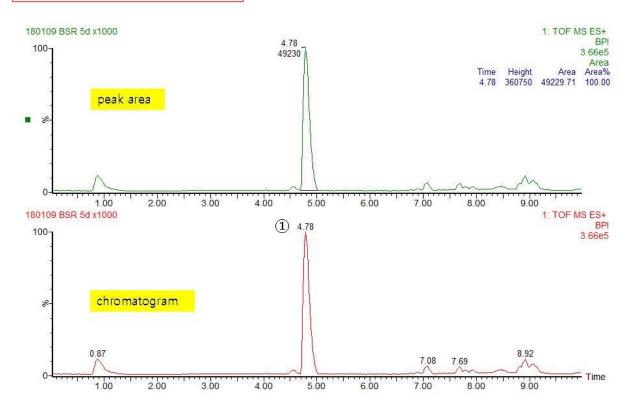
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EXPNO				1	
PROCNO				1	
F2 - Ac	quisi	tion	Para	met	ers
Date_		20	1711		
Time			10.	03	h
INSTRUM			spe		
PROBHD	210	8618_	0941	(	
PULPROG				30	
TD			653	536	
SOLVENI			DI	ISO	
NS				4	
DS				2	
SWH		80	12.8	20	Hz
FIDRES		0	.2445	32	Hz
AO		4.	08944	165	sec
RG			156.	81	
DW			62.4	00	usec
DE			6.	.50	usec
TE			296	5.0	K
D1		1.00	00000		
TDO				1	
SFO1		400.3	3247	08	MHz
NUC1				1H	
P1			14.	00	usec
PLW1		13.00	00000	00	W
F2 - Pr	ocess	ing :	caram	ete	ers
SI			653		
SF		400.3	13000	22	MHz
WDW				EM	
SSB	0				
LB			0.	30	Hz
GB	0				
PC			1.	00	

#### <sup>13</sup>C NMR spectrum of compound **5b**



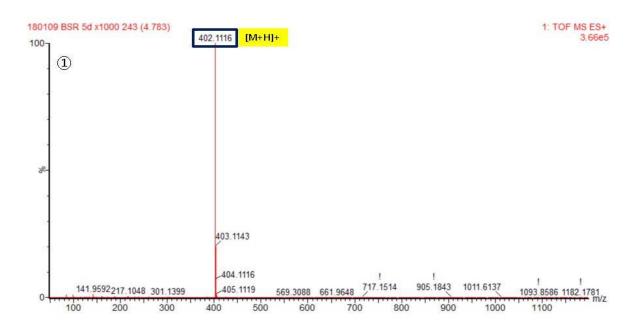
### Purity and HRMS of compound 5b

#### 4. 5d: chromatogram / area

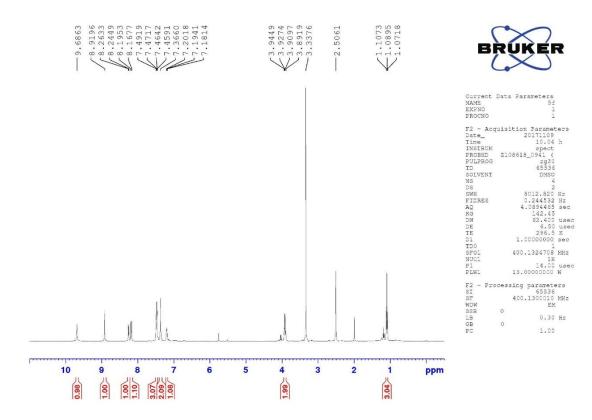


#### 4. 5d: mass spectrum

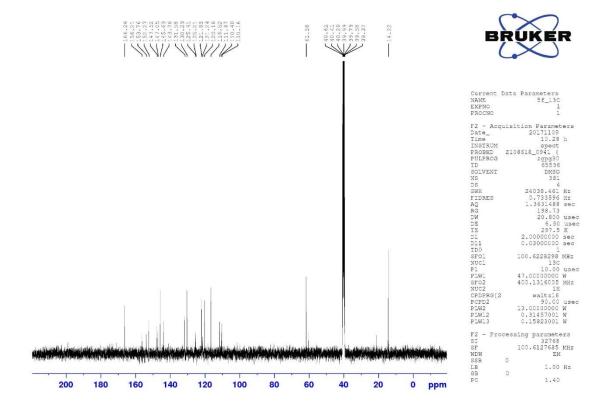
Molecular formula: C<sub>19</sub>H<sub>19</sub>N<sub>3</sub>O<sub>5</sub>S Exact mass: 401.1045 101.2840 (4+) 134.7093 (3+) 201.5601 (2+) 402.1124 (1+)



### <sup>1</sup> NMR spectrum of compound **5c**

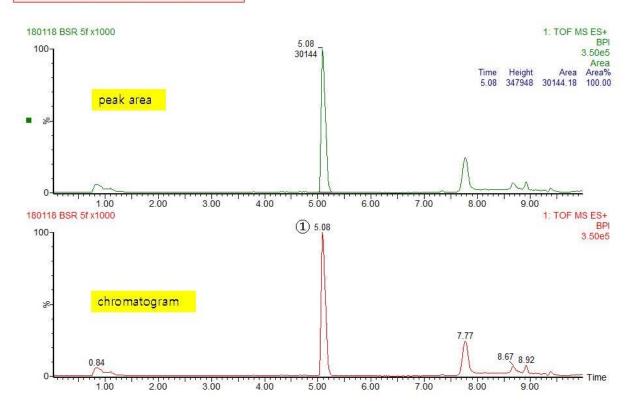


### <sup>13</sup>C NMR spectrum of compound **5c**



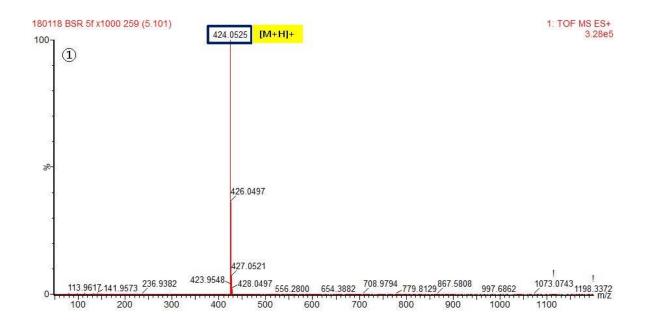
### Purity and HRMS of compound 5c

### 6. 5f : chromatogram / area



6. 5f: mass spectrum

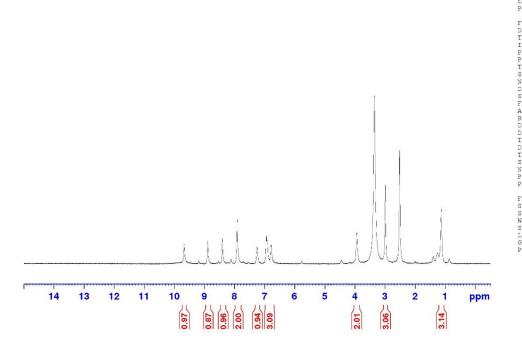
Molecular formula: C<sub>18</sub>H<sub>15</sub>CIFN<sub>3</sub>O<sub>4</sub>S Exact mass: 423.0456 106.7692 (4+) 142.0230 (3+) 212.5306 (2+) 424.0534 (1+)



### <sup>1</sup>H NMR spectrum of compound **5d**

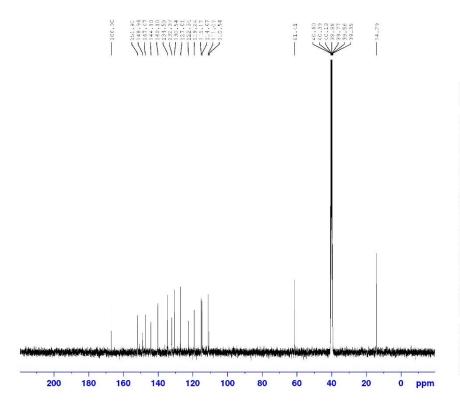
m	4	5	S	4	3	0	01	m	9	0	0	0
d,	9	0	0	-	$\leftarrow$	$\infty$	2	00	00	S	9	V
_	00	0	0	4	4	$\leftarrow$	00	m	4	00	0	0
9	00	4	9	N	9	9	_	0	3	9	L)	-
5	00	00	-	-	0	0	6	m	3	N	N	-
1	Ĭ			1	1	1	/	1	- Î	Ĩ	Ĩ	Ĭ





urrent	Data	Parameters	
AME		Saudi_6b	
XPNO		- 1	
ROCNO			
2 - Ac	quisi	ion Parame	ters
s.te_		20171128	
ime		18.38	2
NSTRUM		apect	
ROBHD	Z10	8618_C941 (	
ULPROG		zg30	
'D		65536	
OLVENI		DMSC	
IS		3	
S		9	
WE		8012.820	Ξz
IDRES		0.244532	= 7
Q		4.0894465	
Ğ		126.56	
107		62.400	
E			usec
E		295.0	
1		1.00000000	
50		2.0000000	000
F01		400.1324708	MHZ
UC1		1H	
1			usec
LW1		13.00000000	
TIMAT		10.00000000	**
2 - Pr	ocess	ing paramet	e~s
I		65536	
7		400.1300000	
WC)		30	
SB	D		
В		0.30	Hz
B	0	0.00	
C		1.00	

### <sup>13</sup>C NMR spectrum of compound **5d**

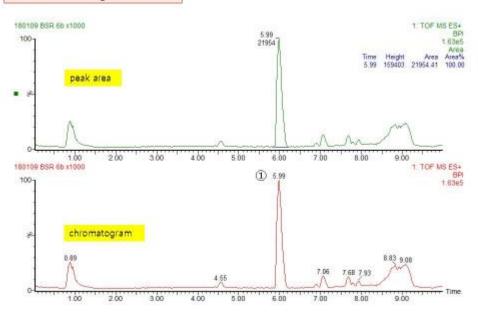




Current Data Parameters   NAME   SAUDI_66_13C			
EXPNO 1  F2 - Acquisition Farameters Date 20171218  Time 16.52 h INSTRUM spect FROREM 2108618_0944 ( PULTROG to 108618_0944 ( PULTROG to 208618_0944 ( PULTROG to 208618_09			
PROCNO   1   F2 - Acquisition Parameters		SAUDI_66_13C	
F2 - Acquisition Parameters Date		_	
Date	PROCNO	1	
Time	F2 - Acq	uisition Paramet	ers
INSTRUM PROMED 2108619_0941 ( PULPROG 109619_0941 ( PULPROG 109619_0941 ( PULPROG 109919_0941 ( PULPROG 109919	Date_	20171218	
FROMED   108619_0942 (	Time	16.52	h
PULHROG         dgpq30           ID         5536           SOLVENT         DMSO           NS         809           DB         4038.461           SHR         24038.461           AQ         1.3631488           LG         193.73           DW         20.800           DW         20.800           DW         20.800           DW         20.800           DI         2.00000000           DI         2.00000000           SPO         ME           NUC1         130           FI         10.00         usec           PLN1         47.0000000         we           SPO         400.1316005         MHz           NUC2         90.00         usec           PLW2         13.0000000         we           SF         00.6127		spect	
ID \$5556 SCOVENT DMSO NS 809 DS 4 4 SWH 24038.461 Hz FIDARS 0.733596 En AQ 1.3631488 per DW 2C.800 Usec DE 6.55 Usec TE 296.9 K D1 2.03000000 sec D1 3.0300000 sec D1 10.528298 ME NUC1 1367 100.0 Usec DF 10.528298 ME DF 10.5288 ME DF 10.538298 ME DF 10.53	PROBHD	2108618_0941 (	
SCLUENT   DMSC   NS	PULPROG	zgpg30	
NS 809 DS 4038.461 Hz FIDARS 0.733596 En AQ 1.3631483 Sec RG 1.59.73 DW 2C.800 300 DE 6.55 tasec TF 295.9 K D1 2.0000000 sec D1 3.00500000 sec D1 10.528298 ME NUC1 136 136 FI 10.00 00000 W SF02 40.000000 W SF02 40.000000 W SF02 50.000000 W FIDAL 0.31457601 W F		65536	
DS SMN 24038.461 Hz FIDRES 0.733596 Hz FIDRES 0.733596 Hz RG 1.3631485 sec RG 298.73 DW 20.800 usec DF 6.50 usec DI 2.90000000 sec DI 2.90000000 sec DI 10.03000000 sec DI 10.030000000 sec DI 10.030000000 sec DI 10.030000000 sec DI 10.030000000000000000000000000000000000			
SMR			
FIDRES			
AQ 1.3631488 mee  RG 1.98.73 me  RG 20.800 usec  DF 6.55 usec  DF 2.96.9 K  D1 2.0000000 sec  D11 0.03500000 sec  D11 130 E  FI 10.03500000 sec  D11 130 Usec  PIM1 47.0000000 Me  SF02 40.136000 Me  SF02 40.136000 Me  PIM1 47.0000000 Me  PIM1 0.31450001 Me  PIM1 0.31457001 W  DFIM2 0.31457001 W  DFIM3 0.31			
RG 198.73 DW 20.800 usec DF 6.50 usec DF 6.50 usec DF 296.9 K D1 2.00000000 sec D1 0.00000000 sec D1 100.522299 MHz NUC1 130 FI 10.00 usec FI 10.00 usec FI 10.00 usec FI 20.012605 MHz NUC2 2 18 CDPRG/2 90.00 usec FI 20.0136000 MHz FI 20.0000000 M FIND 2 13.0000000 M FIND 2 13.0000000 M FIND 3.0000000 M FIND 3.000000 M FIND 3.0000000 M FIND 3.00000000 M FIND 3.00000000 M FIND 3.00000000 M FIND 3.0000000000 M FIND 3.000000000000 M FIND 3.000000000000 M FIND 3.000000000000000000000000000000000000			
DW 20.800 usec   10   10   10   10   10   10   10   1			
TE		198.73	
TE		20.800	usec
DI		6.30	usec
DII			
TDC			
SPOI			sec
NUC1 13C F1 10.00 usec F1 17.0000000 W SF02 400.1316005 MHz NUC2 1E CPDPRG'2 90.00 usec FMT2 13.0000000 W FIM12 0.31457001 W FIM12 0.3145701 W FF2 - Frocessing parameters SI 32768 SF 100.6127685 MHz WDW SME EM SME 0 BB 0 1.00 Hz			
FI 10.00 uses PIN1 47.0000000 W SF02 400.1316005 MHz NU02 HR COPPRG/2 90.00 usec PIM2 13.0000000 W PIM2 13.0000000 W PIM3 0.3485701 W PIM3 0.3485701 W PIM3 10.6127685 MHz NUW 2 100.6127685 MHz NUW 2			ME 2
PIM1			
SF02   400.1916005 MHz     MUC2   well-x16     CDDRAG 2   well-x16     POGRD 2   90.00 Usec     FLM12   13.0000000 W     FLM12   0.31457001 W     FLM13   0.1457001 W     F2 - Processing parameters     SI   32768     SF   100.6127685 MHz     WDW   3M     SGB   0     BB   0   Hz     GB   0			
NUC2 1E CEDPRG/2 Welrz/6 PCFD2 90.00 Usec PLM2 13.00000001 PLM12 0.31457001 N PLM12 0.31457001 N PLM13 0.15823001 N FF2 - Processing parameters SI 32768 SF 100.6127685 MHz WDW EM SUB 0 LB 1.00 Hz GB 0			
CDDRG 2			MHZ
PCPD2 90.00 tosc PIM2 13.00000001 PIM2 0.31457001 N PIM12 0.31457001 N F72 - Processing parameters SI 32768 SF 100.6127685 MHz WDW EM SUB 0 IB 0 1.00 Hz			
PIM2 13.0000000 W PIM12 0.3145701 W PIM13 0.15823001 W F2 - Processing parameters SI 32762 SF 100.612769 MHz WDW 3M SSB 0 1.00 Hz GB 0 1.00 Hz			
PIM12 0.31457C01 W PF2 - Processing parameters SI 32768 SF 100.6127685 MHz WDW 3M SUB 0 LB 0 1.00 Hz			
PIW13 0.15823001 W F2 - Processing parameters SP 100.6127685 MHz WDW EM EM SSB 0 LB 1.00 Hz GB 0			
F2 - Processing parameters SI 32768 SF 100.6127685 MHz MDW SSB 0 LB 1.00 Hz GB 0			
SI 32768 SF 100.6127685 MHz WDW SSB 0 IB 1.00 Hz GB 0	PLLWID	3.23623501	15
SF 100.6127685 MHz WDW EM SSB 0 LB 1.00 Hz GB 0			rs
WDW EM SSB 0 LB 1.00 Hz GB 0			5522
SSP 0 LB 1.00 Hz GB 0		100.6127685	XHz
LB 1.00 Hz GB 0			
GB 0			
			Hz
FC 1.40			
	FC	1.40	

### Purity and HRMS of compound 5d

#### 8. 6b : chromatogram / area



8. 6b : mass spectrum

Molecular formula: C<sub>19</sub>H<sub>18</sub>BrN<sub>3</sub>O<sub>4</sub>S

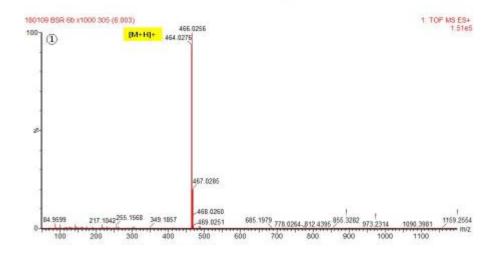
Exact mass: 463.0201

116.7629 (4+)

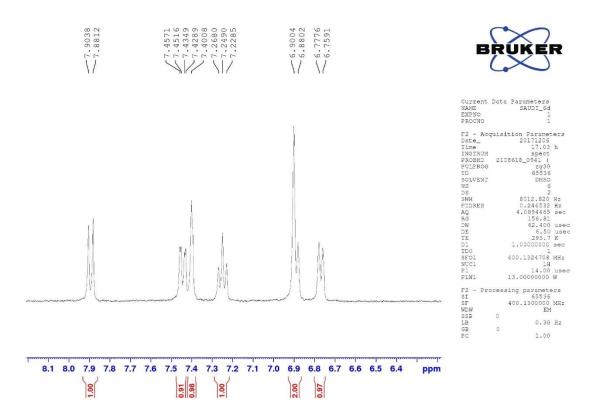
155.3479 (3+)

232.5179 (2+)

464.0280 (1+)



### <sup>1</sup>H NMR spectrum of compound **5e**



# <sup>13</sup>C NMR spectrum of compound **5e**

		0	-	H		10	-		10	00	P-	-1-1	00
0	0 0	0	11	10	(0)		141	4	00	10	64	01.50	91
					0.00				*				
0		-	W	77	(7)		0	(97)	-1	100	100	-10	(20)
		24	121	725	m	m	3	CV.	CO	***	4-1	-1 -1	0
	5 W	4	(WT)	-1	e-1	e-1	set.	ed.	1-1	415	000	ed ed	411
- 1	1		1	1	1	1	1	1	1		1	1.1	T
- 1	- 1	1	1	- 1	1	- 1	1	I	1		- 1	1.1	

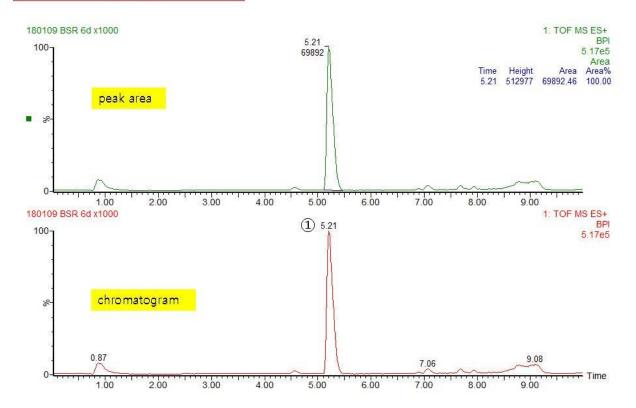


				. 1	
					MARKATANAM
150 145	140 135	130	125 120	115 110	105 ppm

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PROCNO	1	
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Time	15.22	h
INSTRUM	spect	
PROBHD	Z108618_0941 (	
PULPROG	zapa30	
TD	65536	
SOLVENT	DMSO	
NS	289	
DS	4	
SWH	24038.461	Hz
FIDRES	0.733596	Hz
AQ	1.3631488	sec
RG	198.73	
DW	20.800	usec
DE	6.50	usec
TE	296.8	K
D1	2.00000000	sec
D11	0.03000000	sec
TD0	1	
SFO1	100.6228298	MHz
NUC1	130	
P1	10.00	usec
PLW1	47.00000000	197
SFO2	400.1316005	MHz
NUC2	1H	
CPDPRG[2	waltz16	
PCPD2	90.00	usec
PLW2	13.00000000	597
PLW12	0.31457001	W
PLW13	0.15823001	W
F2 - Dro	cessing paramete	
SI	32768	223
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WDW	EM	
SSB	0	
LB	1.00	U-
GB	0	11.6
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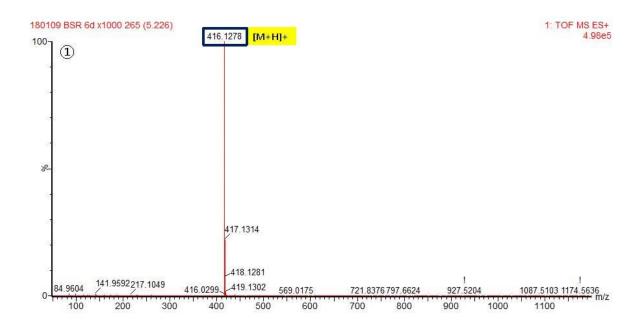
### Purity and HRMS of compound 5e

### 10. 6d : chromatogram / area

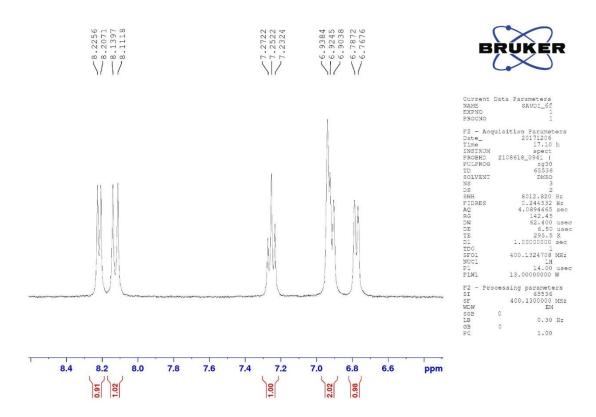


10. 6d: mass spectrum

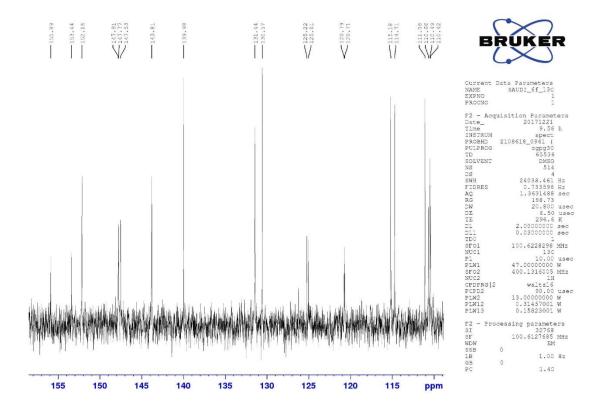
Molecular formula: C<sub>20</sub>H<sub>21</sub>N<sub>3</sub>O<sub>5</sub>S Exact mass: 415.1202 104.7879 (4+) 139.3812 (3+) 208.5679 (2+) 416.1280 (1+)



### <sup>1</sup>H NMR spectrum of compound **5f**

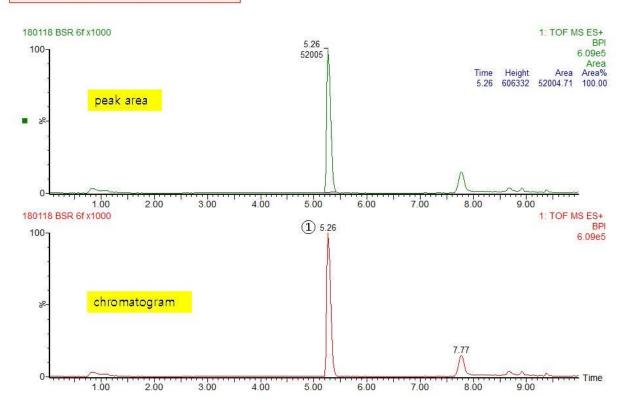


### <sup>13</sup>C NMR spectrum of compound **5f**



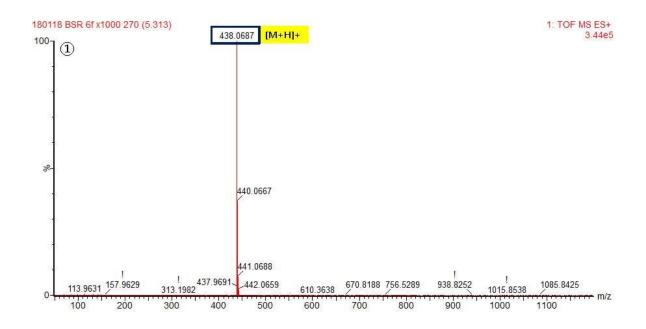
### Purity and HRMS of compound 5f

### 12. 6f : chromatogram / area

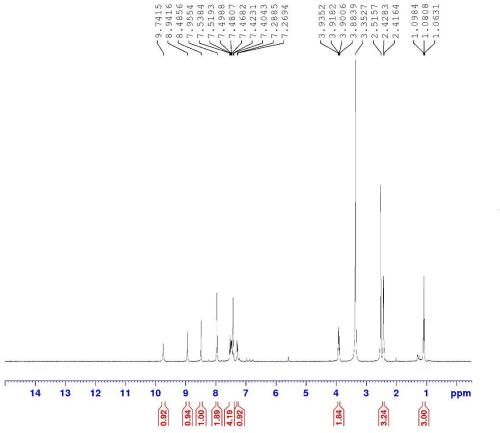


12. 6f: mass spectrum

Molecular formula: C<sub>19</sub>H<sub>17</sub>CIFN<sub>3</sub>O<sub>4</sub>S Exact mass: 437.0612 110.2731 (4+) 146.6949 (3+) 219.5384 (2+) 438.0691 (1+)



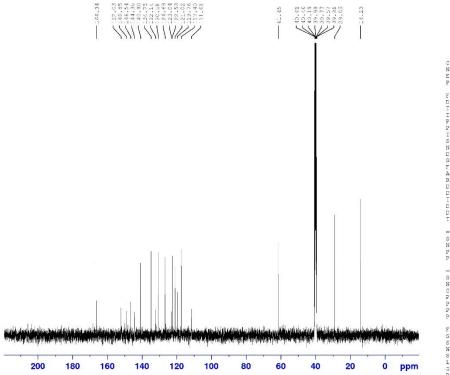
### <sup>1</sup>H NMR spectrum of compound **5g**





Curre	ent D	ata	Pа					
NAME				SA	UE	I_	.7b	
EXPN							1	
PROCE	10						1	
F2 -		isi						ers
Date_	-0.			20	17			
Time					1	C.	35	
INSTR	NUN				3	pe	ct	
PROBE	ID.	5 m	m P	AB	ВО	В	B/	
PULPE	ROG					zo	130	
TD					6	55	336	
SOLVE	INT					DM	150	
NS							4	
DS							2	
SWH				80	12	. 8	20	Hz
FIDRE	S			0.	12	22	66	Hz
AQ			4	.0	89	44	65	sec
RG							52	
DW					62	. 4	100	usec
DE						6.	50	usec
TE					2	97	.0	K
D1			1.	00				sec
TDC							1	
one:		CHA	NNE	- ,	f1	-		
SFO1 NUC1			400	. 4	-4	4/	1 H	MHz
						-		usec
P1.								
PLW1			12.	ΟÜ	UU	UU	υu	W
F2 -	Proc	ess	ing	p				
SI							36	
SF			400	. 2	10	0.0		MHz
MDM							EM	
SSB		0						
LB						0.	30	Hz
GB		0						
PC						1.	00	

# <sup>13</sup>C NMR spectrum of compound **5g**

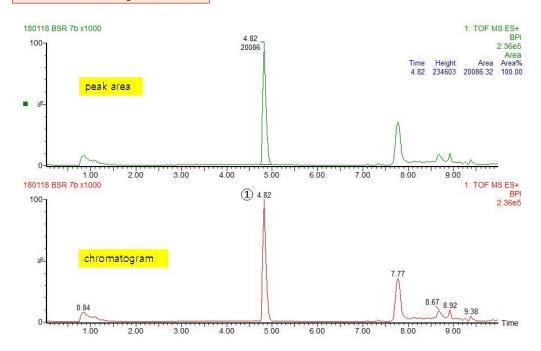




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PROBHE	5 mm PABBO BB/	
PULPROG	zgpg30	
ID	65536	
SOLVENI	DMSC	
NS	514	
DS	4	
SWH	24038.461 Hz	
FIDRES	0.366798 Hz 1.3631488 sec	
AQ	1.3631488 Bed	3
RG DW	20.800 use	
DE DE	20.000 use 6.50 use	
IE	298.1 K	- 5
D1	2.000000000 sec	8
Dll	0.03000000 sec	
IDO	1	
	CHANNEL f1 ======	
SF01	100.6429474 MHz	
NUCL	130	
P1	10.00 use	95
PLW1	52.00000000 W	
-	CHANNEL f2 =====	
	400.2116008 MHz	
SFO2		
NUC2	1H	
NUC2 CPDFRG[2	waltz16	
NUC2 CPDFRG[2 PCFD2	waltz16 90.30 use	00
NUC2 CFDFRG[2 PCFD2 PLW2	waltz16 90.30 use 12.0000000 W	00
NUC2 CFDFRG[2 PCFD2 PLW2 PLW12	waltz16 90.30 use 12.0000000 W 0.35777000 W	0
NUC2 CPDPRG[2 PCPD2 PLW2 PLW12 PLW13	waltz16 90.30 use 12.0000000 W 0.35777000 W 0.28979000 W	90
NUC2 CPDFRG[2 PCFD2 PLW2 PLW12 PLW13 F2 - Pro	waltz16 90.30 use 12.00000000 W 0.35777000 W 0.28979000 W	0
NUC2 CPDFRG[2 PCFD2 PLW2 PLW12 PLW13 F2 - Pros	waltel6 90.30 use 12.0000000 W 0.35777000 W 0.26879000 W cessing parameters 32768	
NUC2 CPDFRG[2 PCFD2 PLW2 PLW12 PLW13 F2 - Pro	waltz16 90.30 use 12.00000000 W 0.35777000 W 0.28979000 W	
NUC2 CPDPRG[2 PCFD2 PLW2 PLW12 PLW13 F2 - Pros	waltz16 90.00 use 12.0000000 W 0.35777000 W 0.28979000 W cessing parameters 32768 100.632886 MHz	
NUC2 CPDPRG[2 PCPD2 PLW2 PLW12 PLW13 F2 - Pros SI SF WDW	waltc16 90.30 use 12.0000000 W 0.35777003 W 0.28979000 W cessing parameters 32768 100.6328863 MHz EM	
NUC2 CPDPRG[2 PCFD2 PLW2 PLW12 PLW13 F2 - Pros SI SF WDW SSB	waltel6 90.30 use 12.0000000 W 0.35777000 W 0.28979000 W cessing parameters 32768 100.6328960 MHz	

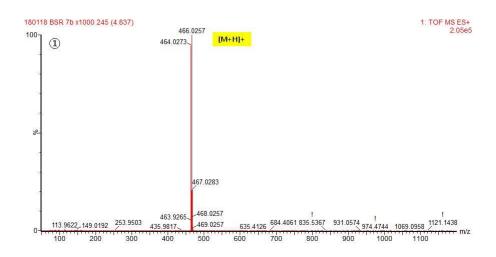
### Purity and HRMS of compound 5g

#### 14. 7b : chromatogram / area

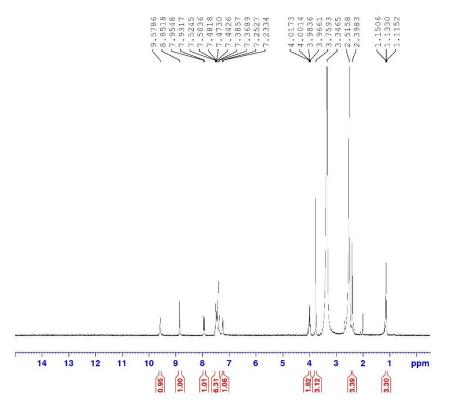


14. 7b : mass spectrum

Molecular formula:  $C_{19}H_{18}BrN_3O_4S$ Exact mass: 463.0201116.7629 (4+) 155.3479 (3+) 232.5179 (2+) 464.0280 (1+)



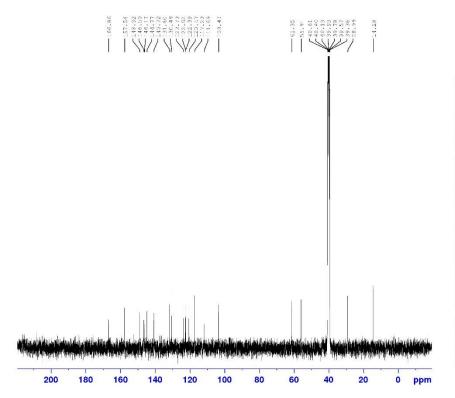
# <sup>1</sup>H NMR spectrum of compound **5h**





Current D	ata Parametera	
NAME	SAUDI 7d	
EXPNO		
PROCNO	1	
	isition Paramet	ers
Date_	20171212	
Time	10.43	
INSTRUM	apect	
PROBHD	5 mm PABBO BB/	
PULPROG	zq30	
ID	65536	
SOLVENT	DMSO	
NS	64	
DS	2	
SWH	8012.820	Hz
FIDRES	0.122266	
AO	4.0894465	
RG	190.62	
DW	62,400	
DF		
IE	6.50 297.2	7360
DI.	1.00000000	10
TRO	00.00000	sec
1110	1	
	CHANNEL f1 ===: 400.2124715	
SF01	400.ZIZ4/IS	MHZ
NUC1 P1	15.54	
PLW1	12.00000000	W
	essing paramete	ers
SI	65536	
SF	400.2100000	MHz
WDW	EM	
SSB	0	
LB	0.30	Hz
GB	0	
PC	1.00	

### <sup>13</sup>C NMR spectrum of compound **5h**

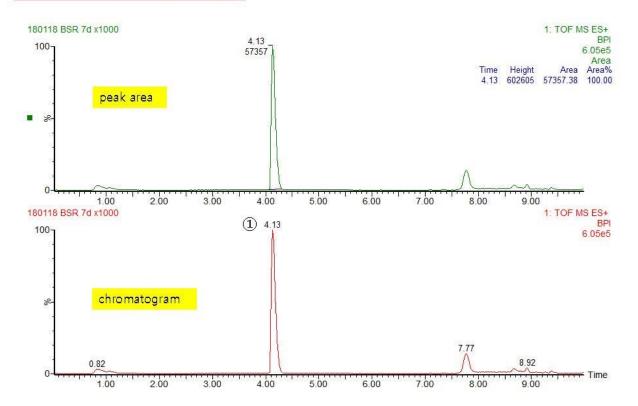




Current D	ca Parameters
NAME	SAUDI 7d 130
EXPNO	BRODI_/d_ISC
PROCNO	1
PROUNU	1
	sition Parameters
Date_	20180117
Time	9.51 h
INSTRUM	spect
	108618_0941 (
PULPROG	zgpg30
TD .	65536
SOLVENT	OMSO
NS	576
DS	4
SWE	24038.461 Hz
FIDRES	C.733596 Hz
AO	1.3631488 sec
RG	198.73
DW	20.800 usec
DE	6.50 usec
TE	297.1 K
D1	2.00000000 sec
D11	0.03000000 sec
TD0	1
SFC1	100.6228298 MHz
NUC1	130.0220230 MML
21	10.00 usec
PLWI	47.000000000 W
	400.1316005 MHz
SFC2	
NUC2	13
OFDFRG[2	waltz16
PCFD2	90.00 usec
PLW2	13.00000000 W
PLW12	0.31457001 W
PLW13	0.15823001 W
F2 - Proce	ssing parameters
SI	32768
SF	100.6127685 MEz
WDW	ΞM
883 (	
LB	1.00 Hz
GB (	
30	1.70

### Purity and HRMS of compound 5h

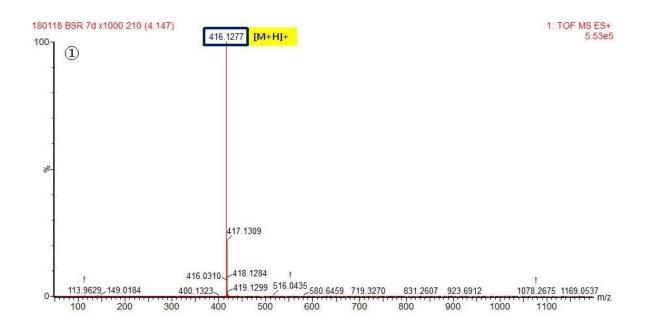
### 16. 7d: chromatogram / area



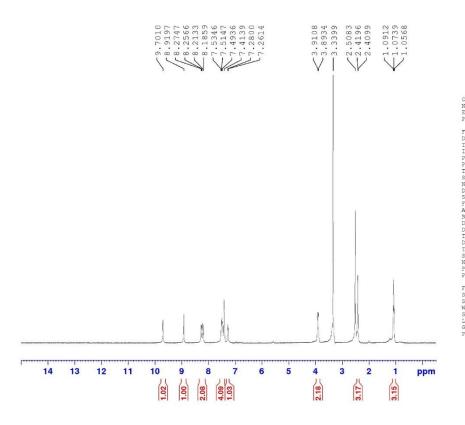
16. 7d: mass spectrum

Molecular formula: C<sub>20</sub>H<sub>21</sub>N<sub>3</sub>O<sub>5</sub>S Exact mass: 415.1202 104.7879 (4+) 139.3812 (3+)

208.5679 (2+) 416.1280 (1+)



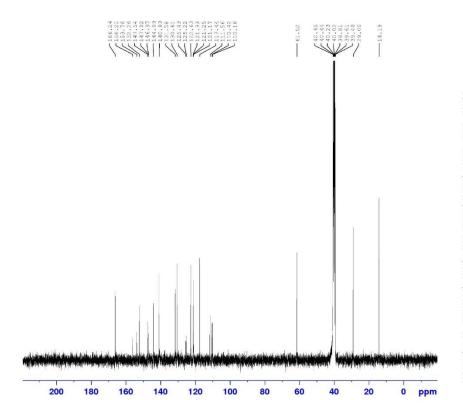
### <sup>1</sup>H NMR spectrum of compound **5i**





Current	Data	Para	meters	
IAME		SA	UDI 7f	
EXPNO			1	
PROCNO			1	
2 - Acc	paisit			ers
ate_		20	171213	
Time			18.06	
INSTRUM			spect	
PROBHD		8618_	0941 (	
PULPROG			zg30	
TD .			65536	
SOLVENT			DMSO	
18			4	
)S			2	
HWE			12.820	
FIDRES		0.	244532	Hz
10			894465	
RG			142.45	
W			62.400	
Œ			6.50	
Œ		150 100 100	295.8	
01		1.00	000000	sec
DO			1	
FO1	- 2	400.1	324708	
WC1			1H	
21			14.00	
PLW1		13.00	000000	M
2 - Pro	cess.	ing p		
BI			65536	
3F	3	400.1	300000	
VDW			EM	
SSB	0			
LB			0.30	Hz
BB	0		10 1919	
P.C			1.00	

# <sup>13</sup>C NMR spectrum of compound **5i**

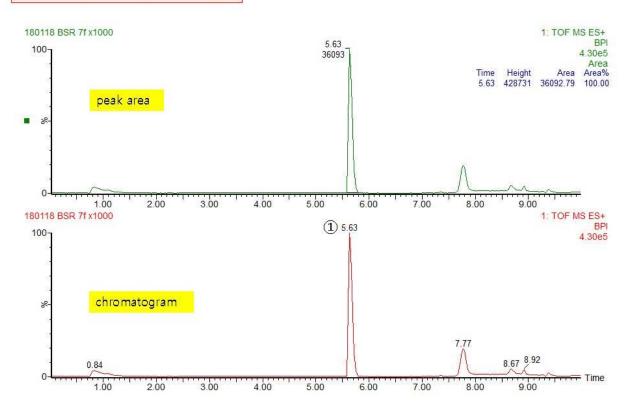




Current I									
NAME	SAU	DI	_7	f	1	30	_:	i	nal
EXPNO								1	
PROCNO								1	
F2 - Acq	uisi	ti	on	=	a	re	ame	t	ers
Date_			2	01	8	01	29	9	
Time					1	7.	. 5	L	h
INSTRUM					s	pe	901		
PROBHD	210	86	18	_0	9.	41	. 1		
PULPROG				-			330		
TD					6	5	53	6	
SOLVENT						D	MS	5	
NS						3	87	4	
DS									
SWH									Hz
FIDRES			C		73	3!	598	ŝ	Hz
AQ			1.						sec
RG				1	19	8	. 7:	3	
DW				3					usec
DE						6	. 5	0	usec
TE					3	0	1.	7	X
D1		2	.0	00	10	00	000		sec
D11		0	. 0	30	0	00	000		sec
TDO								1	
SFO1		10	0.	62	2	82	98		MHz
NUC1						- 6	130	0	
P1					1	0	. 00	1	usec
PLW1		47	. 0	00	0	00	100		W
SFO2		40	0.	13	31	60	005	;	MHz
NUC2							11	1	
CPDPRG[2				WE	1	ti	:16	5	
PCPD2					9	0	.00	)	usec
PLW2		13	. 0	00	0	00	000		W
PLW12		0	. 3	14	15	70	001		W
PLW13		0	. 1	58	32	30	101		₩
F2 - Pro	cess	in	ď	BC	2	an	et	e	rs
SI			-	-			768		
SF		10	0.	61	2	76	85		MHz
WDW							E	v	
SSB	0								
LB						1	.01	0	Hz
GB	0								
PC						1	. 4	0	

### Purity and HRMS of compound 5i

### 18. 7f : chromatogram / area



18. 7f: mass spectrum

Molecular formula: C<sub>19</sub>H<sub>17</sub>CIFN<sub>3</sub>O<sub>4</sub>S Exact mass: 437.0612 110.2731 (4+) 146.6949 (3+) 219.5384 (2+) 438.0691 (1+)

