Electronic Supplementary Material (ESI) for Materials Chemistry Frontiers.

Dithieno[3,2-*a*:3',2'-*j*][5,6,11,12]chrysene diimdes and their Molecular Energy Levels Regulation

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1. Measurements and characterization

^{1}H NMR spectra were measured on a Varian Mercury 300 MHz or 400 MHz instrument using tetramethylsilane (TMS) as an internal standard. ^{13}C NMR spectra (100 MHz) were measured on a Varian Mercury 400 MHz instrument. Mass spectra (MALDI-TOF) were recorded on a Voyager-DE STR mass spectrometer. EI-MS and HRMS (MALDI) were carried out on HP5973 and Ino Spec 4.7 T FTMS, respectively. Elemental analyses were performed on an Elementar Vario EL III elemental analyzer. Electronic absorption spectra were measured on a U-3900 UV−vis spectrophotometer. Fluorescence spectra were measured on a HITACHI F-2700 fluorescence spectrophotometer. TGA measurements were carried out on a TA Q500 instruments under a dry nitrogen flow at a heating rate of 10 °C/min, heating from room temperature to 500 °C. DSC analyses were performed on a TA Q2000 instrument under a nitrogen atmosphere at a heating (cooling) scan rate of 10 °C/min heated from 0 °C to 100 °C for **1a**, from 0 °C to 350 °C for **2a**, and from 0 °C to 300 °C for **3a**. Electrochemical measurements were carried out on a CHI610D electrochemical workstation using a platinum working electrode, a platinum-wire auxiliary electrode, and a saturated calomel electrode (SCE) as reference electrode in a solution of tetra-n-butylammoniumhexafluorophosphate (0.1 M) in CH_2Cl_2 at a scan rate of 100 mV/s. The mercury lamp's model is CEL-M500 purchased from CEAULIGHT Company. Melting points were measured on aWRS-1A microscopic melting point apparatus. AFM was recorded on a Nanoscope IIIa atomic force microscopy (AFM) in tapping mode. X-ray diffraction (XRD) measurements were carried out in the reflection mode using a 2-kW Rigaku X-ray diffraction system.

2. TGA and DSC of **1a**, **2a**, and **3a**

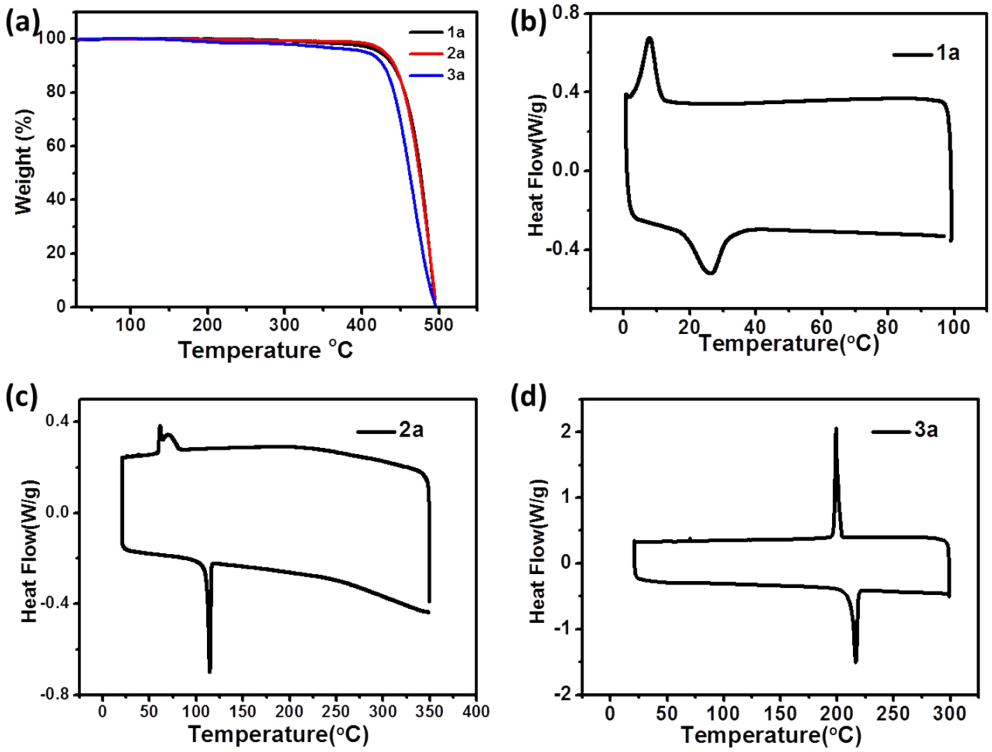


Figure S1. TGA plots of **1a**, **2a**, and **3a** (10 °C/min under N_2) (a) and DSC plots of **1a** (b), **2a**(c), and **3a** (d) (10 °C/min under N_2).

3. Absorption spectra of **1a**, **2a**, and **3a**.

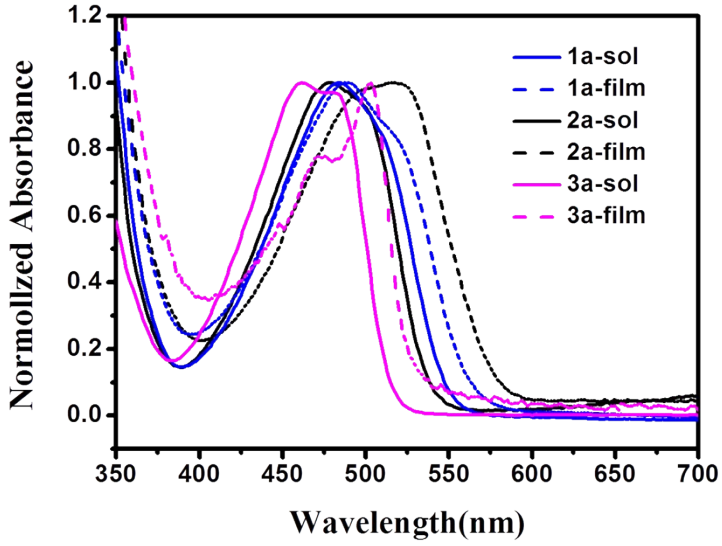


Figure S2. Absorption spectra of **1a**, **2a**,**3a** in dichloromethane solution and in films

4. Fabrications and characterizations of OTFT devices

An n-type heavily doped Si wafer with a SiO2 layer of 300 nm and a capacitance of 9.8nF/cm^2 was used as the gate electrode and dielectric layer. Thin films of **1a**, **2a** and **3a**(30–50 nm in thickness) were deposited on octadecyltrichlorosilane (OTS)-treated SiO2/Si substrates by spin-coating their respectively solutions (10 mg/mL). Then, the thin films were annealed at different temperatures for improving their thin-film quality/morphology. Gold source and drain contacts (50 nm in thickness) were deposited by vacuum evaporation on the organic layer through a shadow mask, affording a bottom-gate top-contact device configuration. The channel width (W) /length (L) = 8.95. Electrical measurements of OTFT devices were carried out at room temperature in N_2 atmosphere using a Keithley 4200 semiconductor parameter analyzer. The field-effect mobility was calculated in the saturation regime by using the equation IDS= (μWCi/2L)(VG – VT)2, where IDS is the drain-source current, μ is the field-effect mobility, W is the channel width, L is the channel length, Ci is the capacitance per unit area of the gate dielectric layer, VG is the gate voltage, and VT is the threshold voltage.

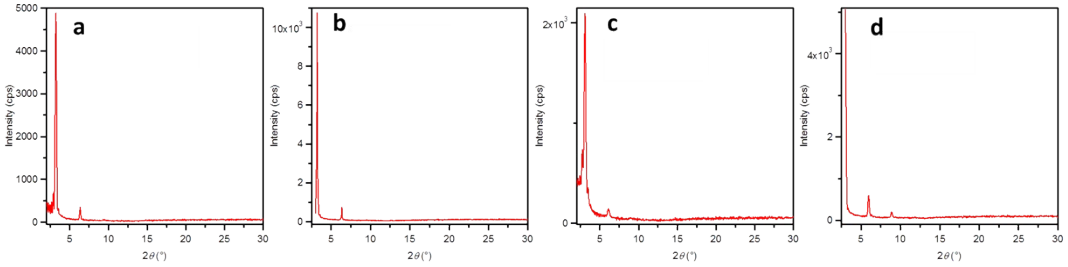


Figure S3. XRD patterns of thin films of **2a** (a: as spin-coated； b: annealed at 80 °C), **3a** (c: as spin-coated; d: annealed at 120 °C).

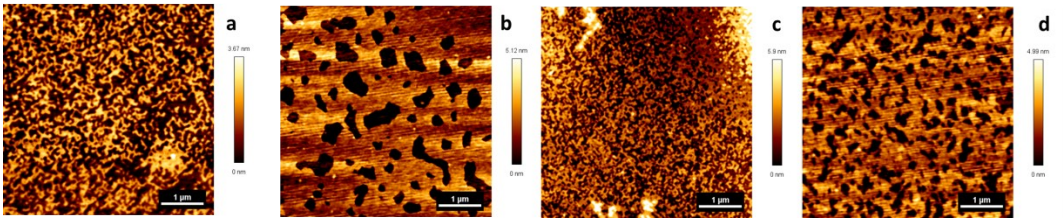
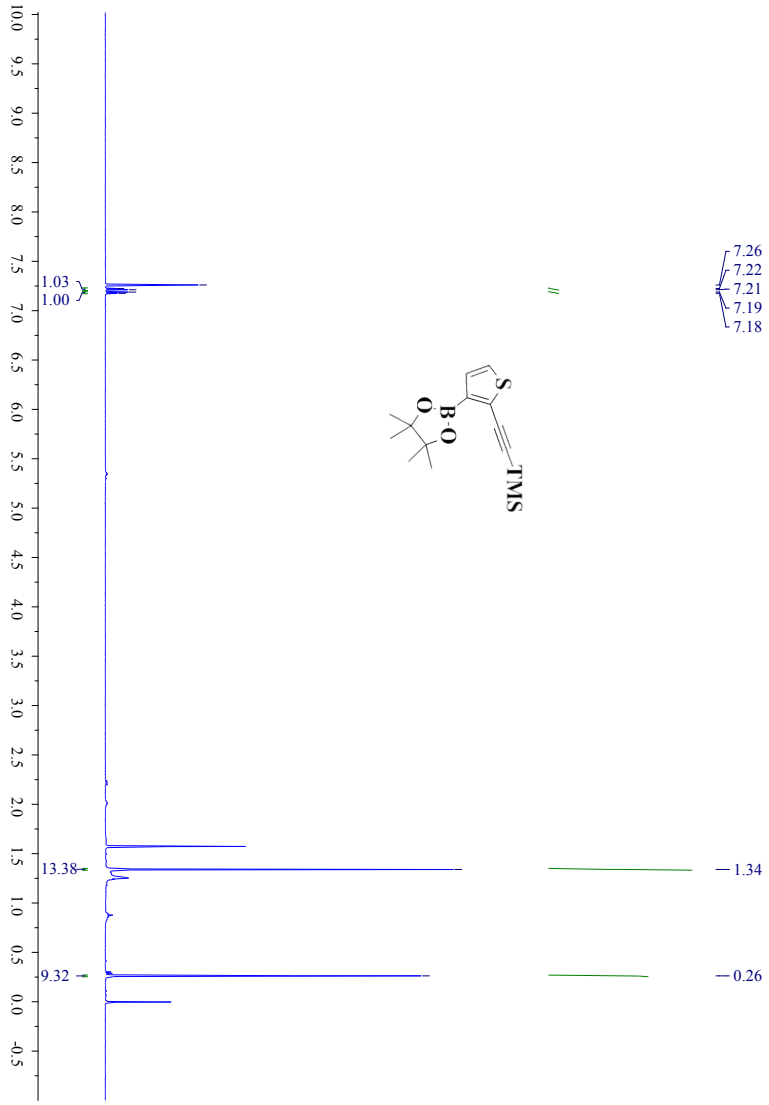


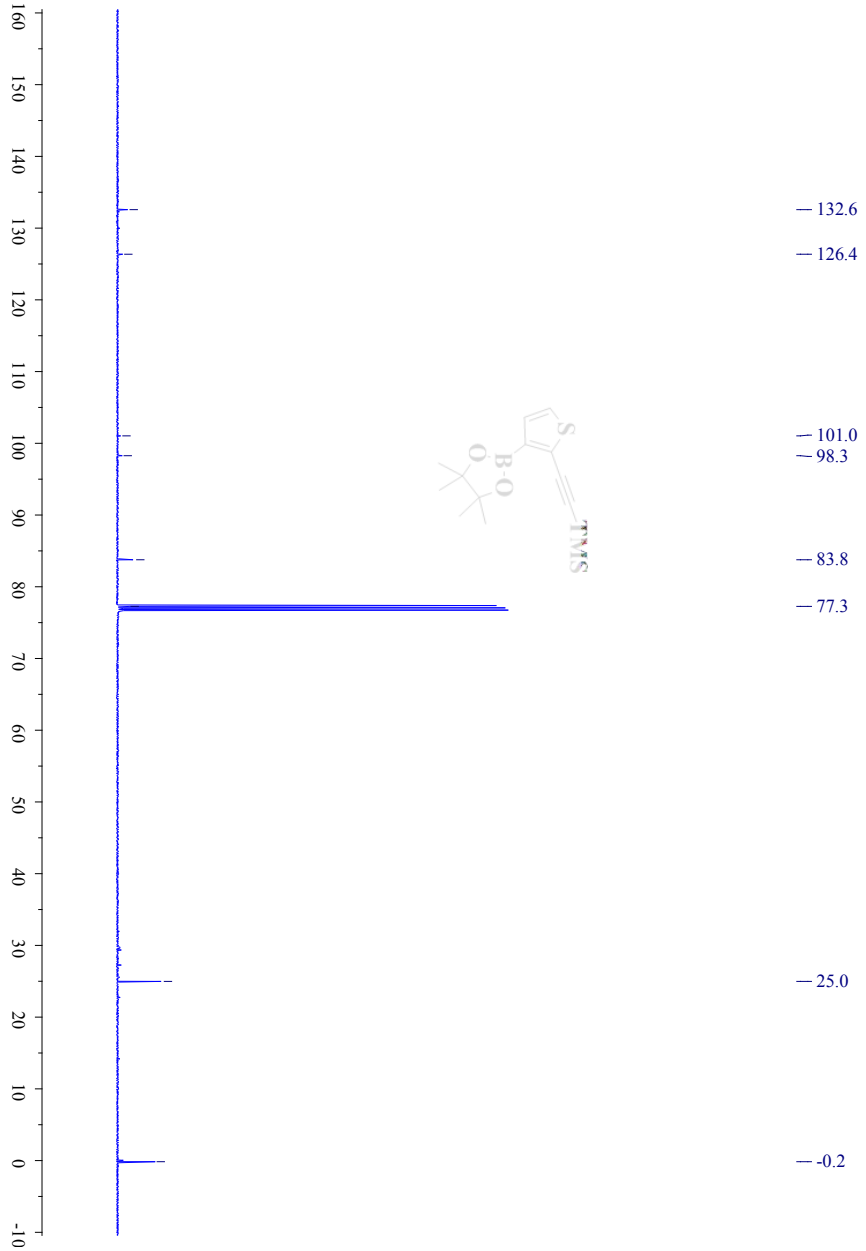
Figure S4.AFM images of thin films of **2a** (a: as spin-coated； b: annealed at 80 °C), **3a** (c: as spin-coated; d: annealed at 120 °C).

5. Table S1. Crystal data and structure of **3b**.

Identification code	P
Empirical formula	C H N O S
Formula weight	75.09
Temperature	173(2) K
Wavelength	1.54178 A
Unit cell dimensions	a=16.2355(11)Aalpha = 90deg. b=14.4863(9) A beta = 106.064(4) deg. c=17.7924(11)A gamma = 90 deg.
Volume	4021.2(4) A^3
Z, Calculated density	80, 2.481 Mg/m^3
Absorption coefficient	11.017 mm^-1
F(000)	3040
Theta range for data collection	4.16 to 68.76 deg.
Limiting indices	-18<=h<=19, -17<=k<=17, -21<=l<=21
Reflections collected / unique	22565 / 7149 [R(int) = 0.0615]
Completeness to theta = 68.76	96.0 %
Refinement method	Full-matrix least-squares on F^2
Data / restraints / parameters	7149 / 509 / 525
Goodness-of-fit on F^2	1.021
Final R indices [I>2sigma(I)]	R1 = 0.0731, wR2 = 0.1872
R indices (all data)	R1 = 0.1051, wR2 = 0.2133
Largest diff. peak and hole	0.630 and -0.302 e.A^-3

6. NMR, MS and IR spectra

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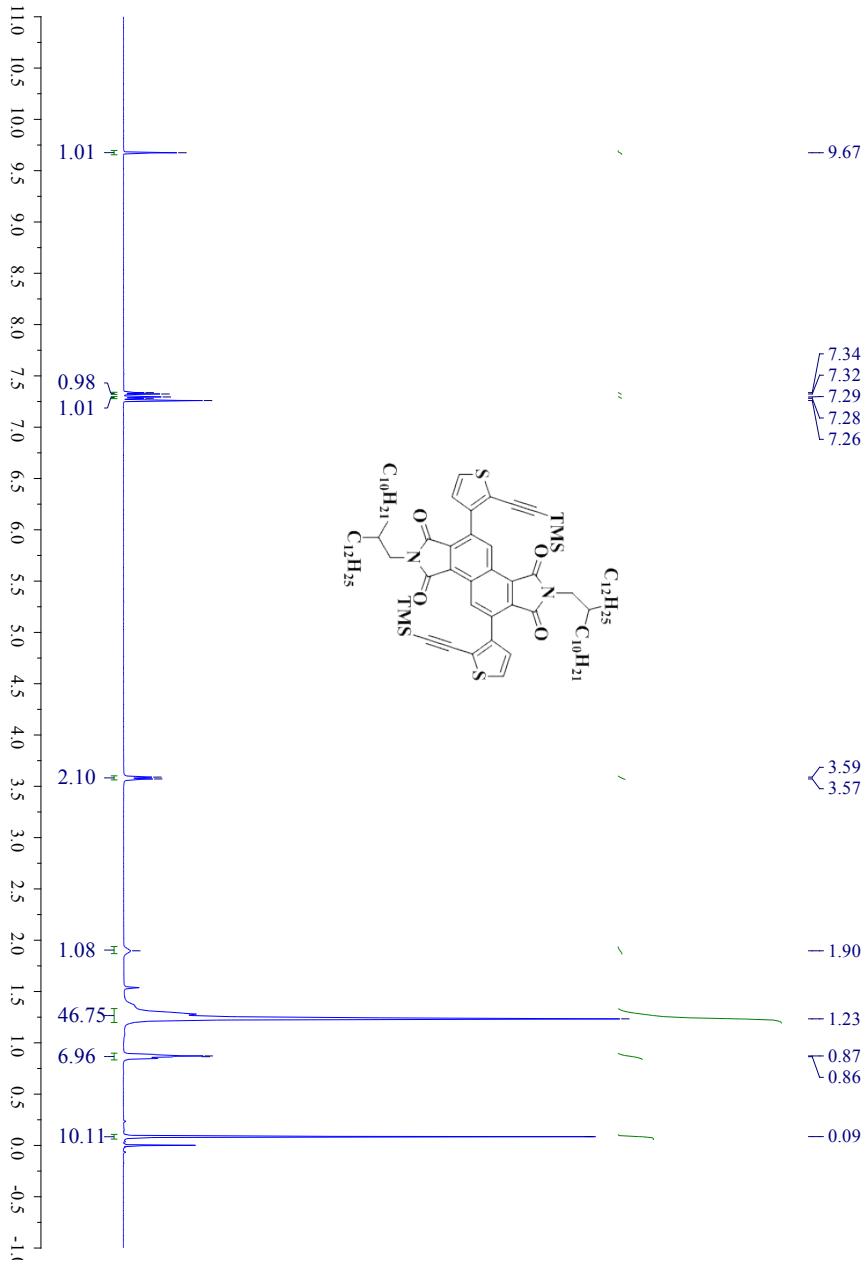
S
TMS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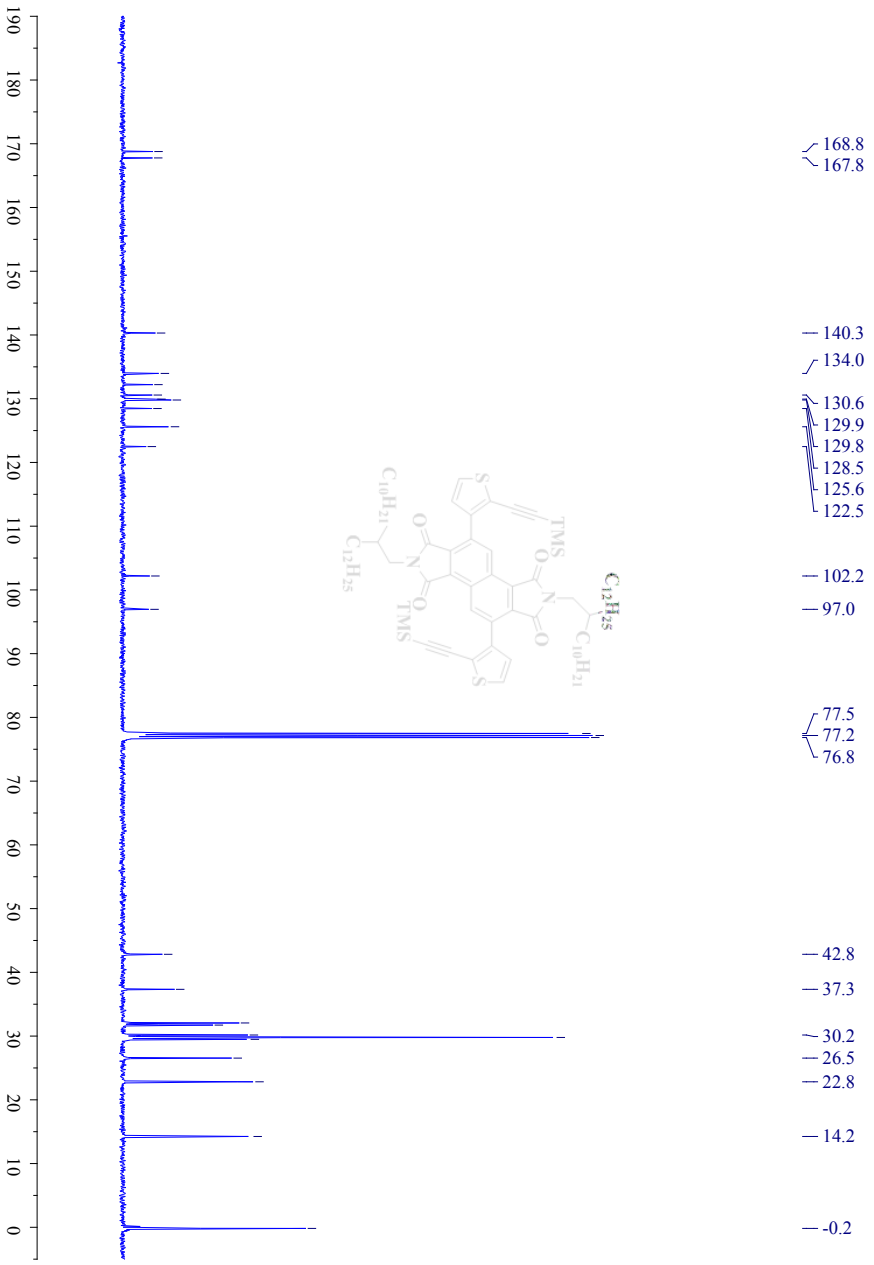
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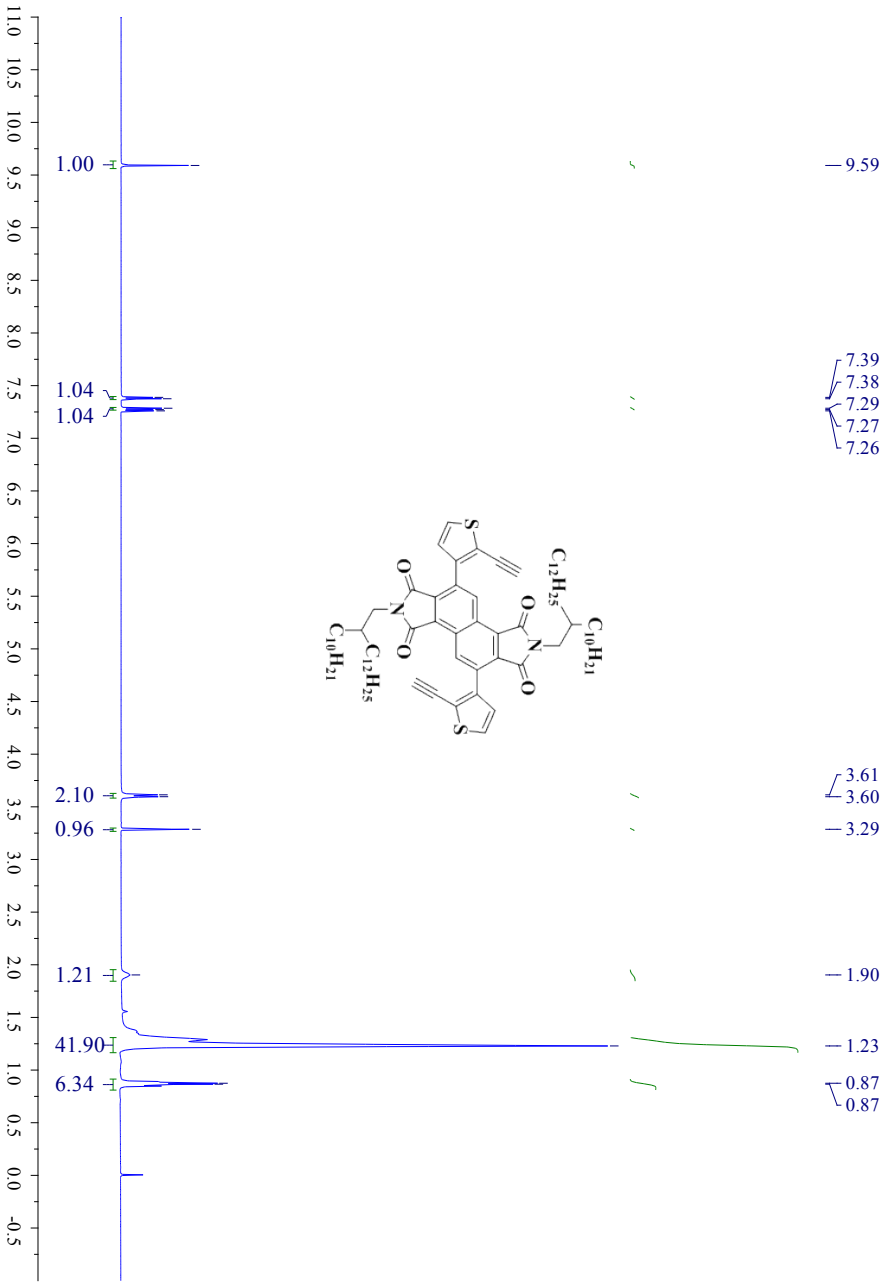
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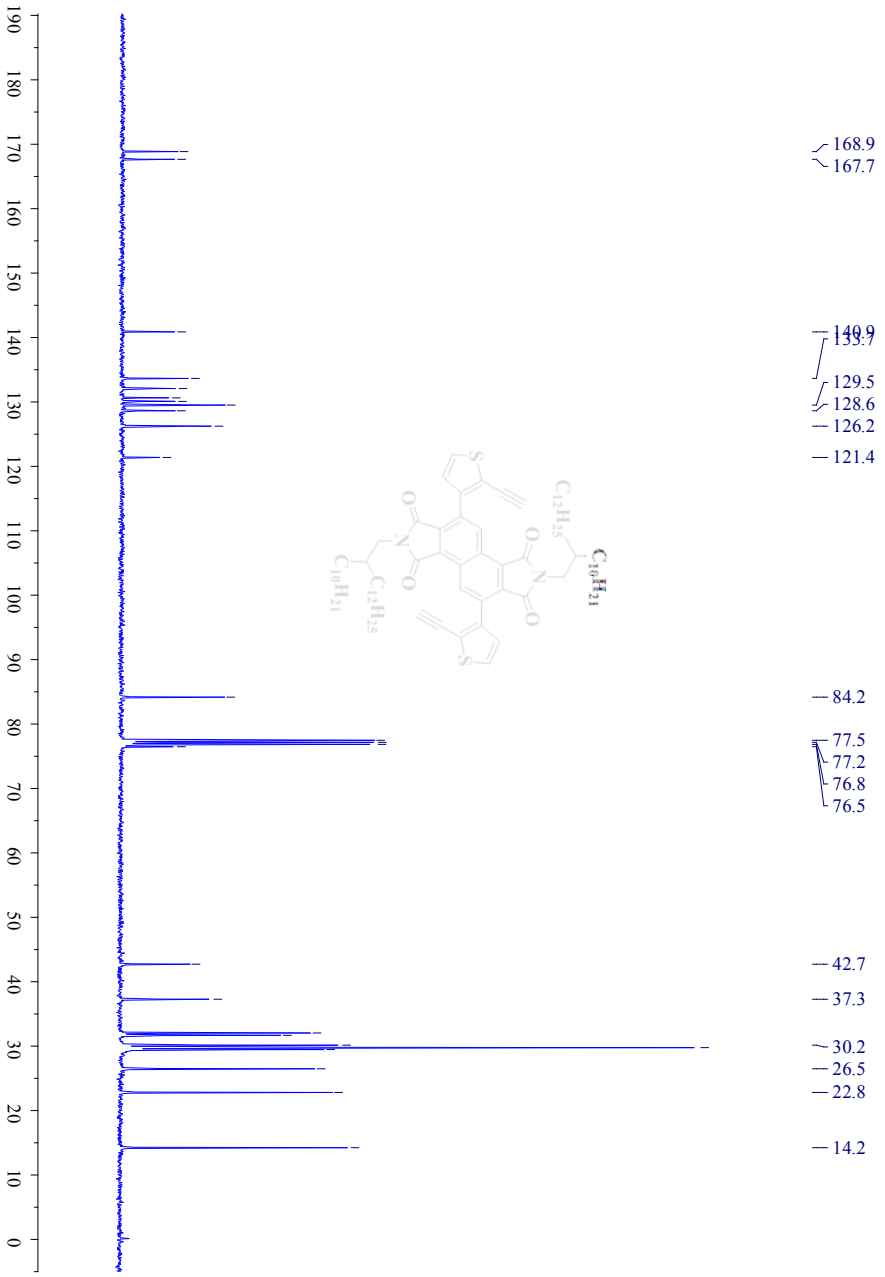
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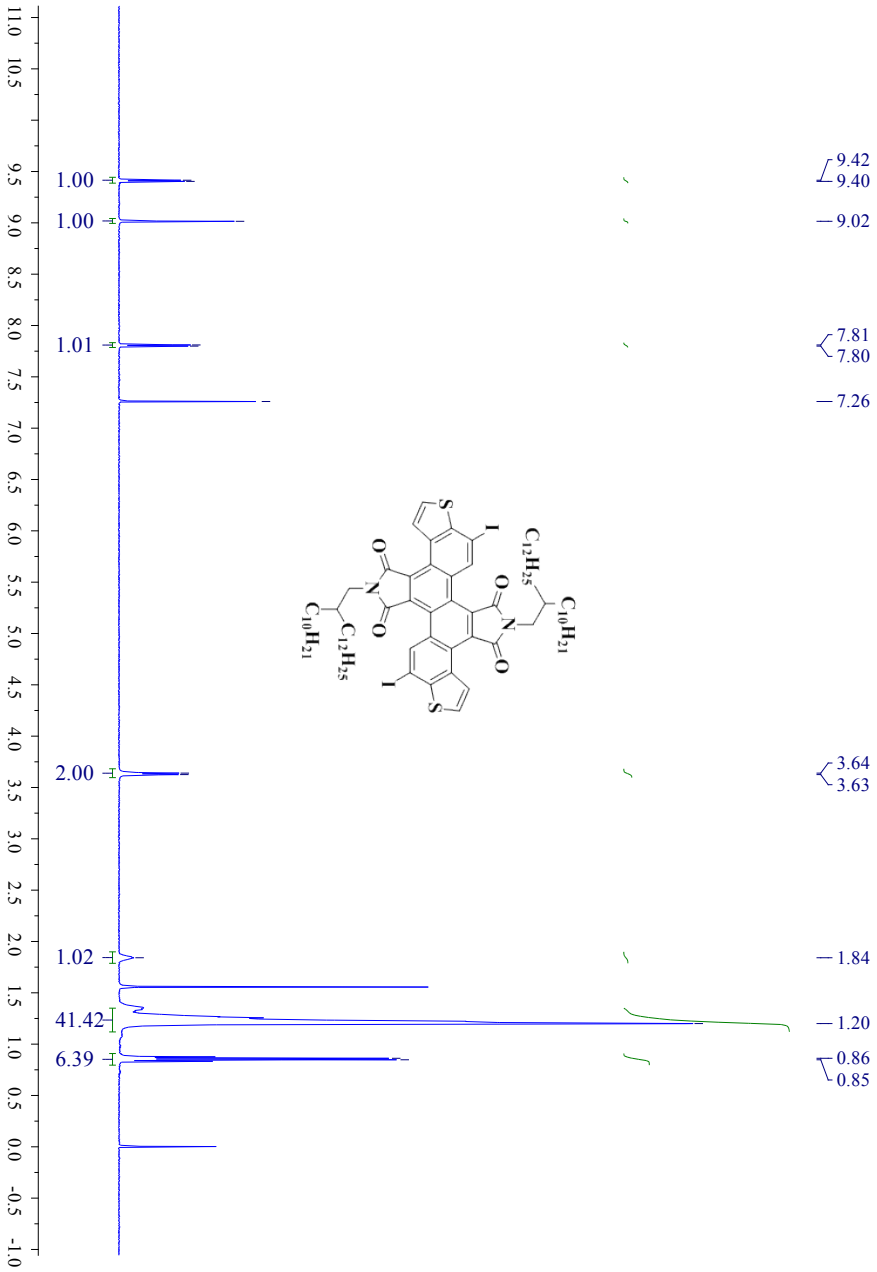
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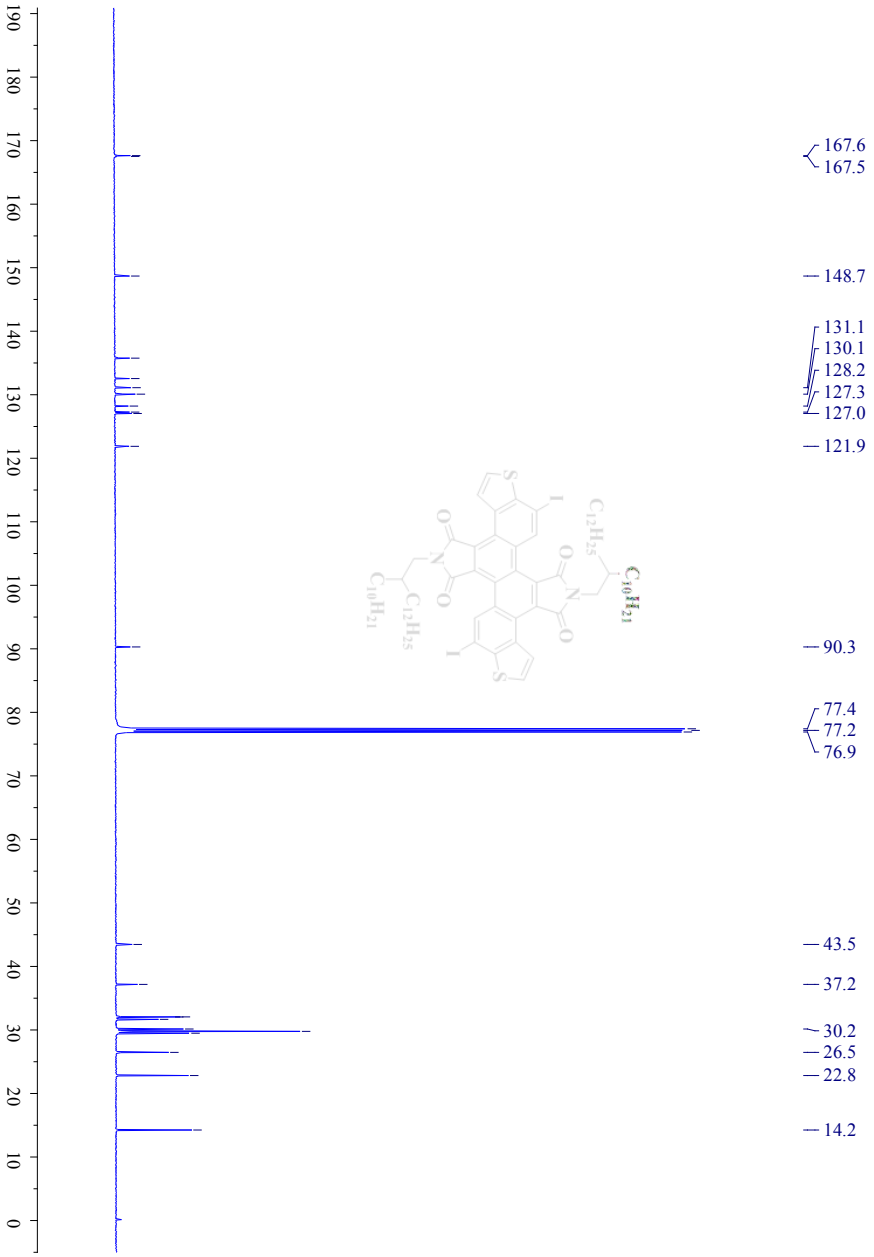
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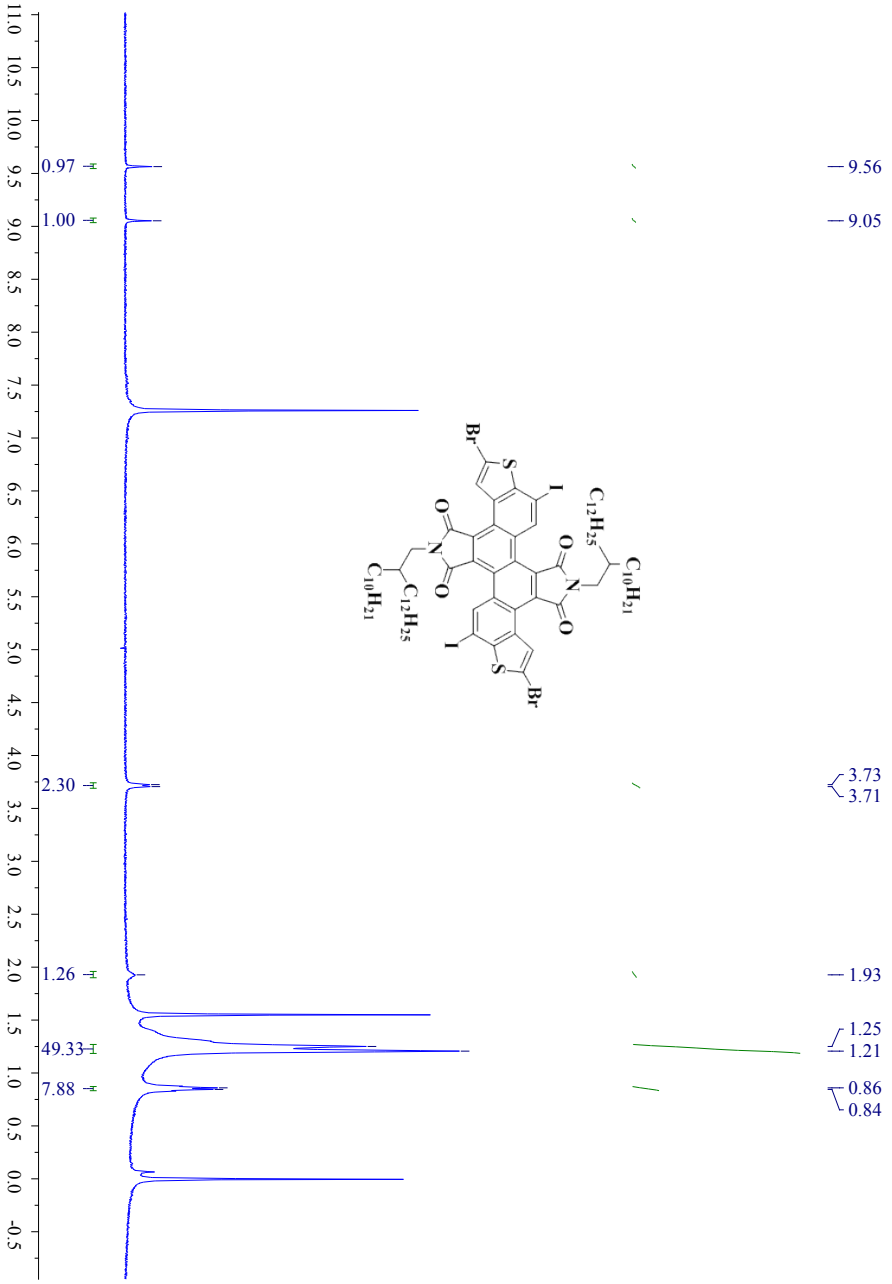
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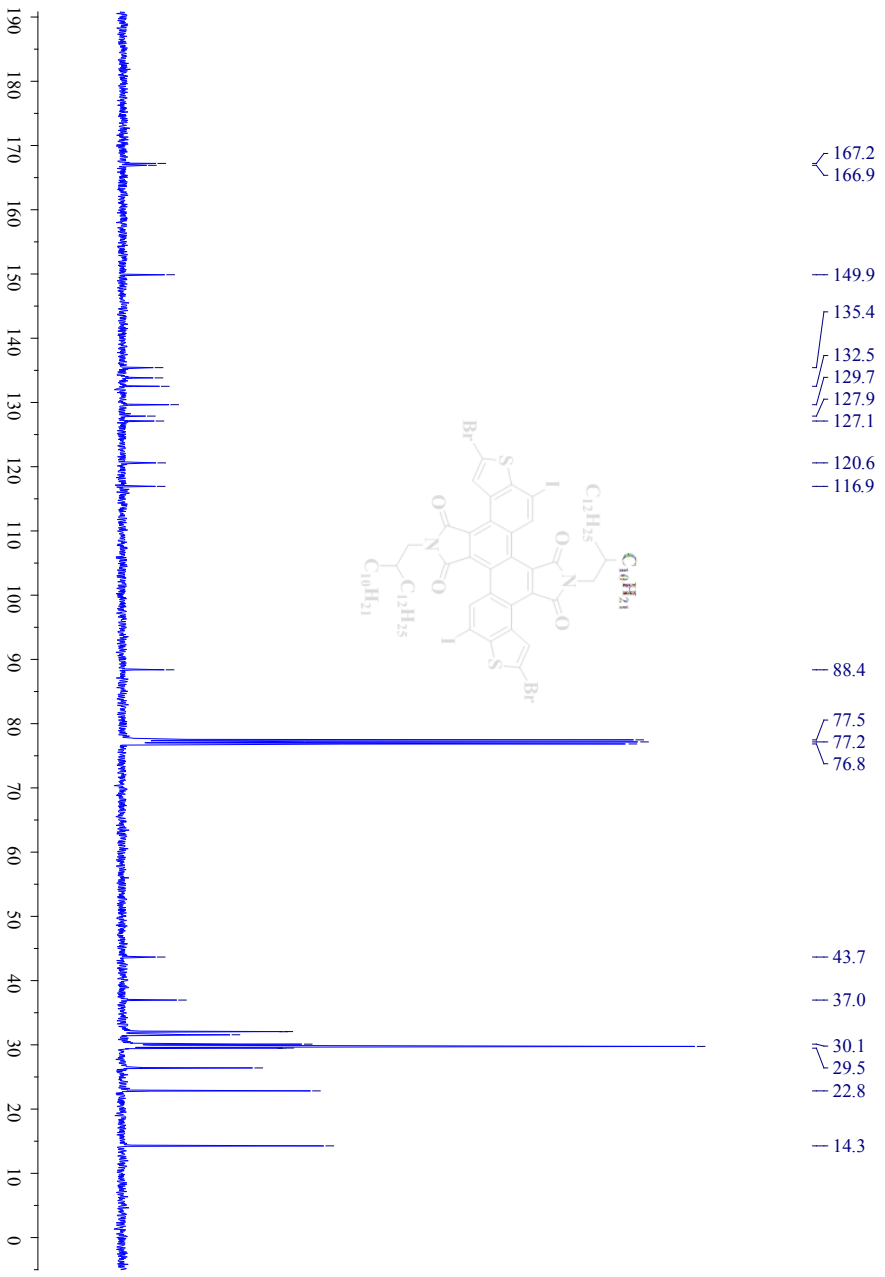
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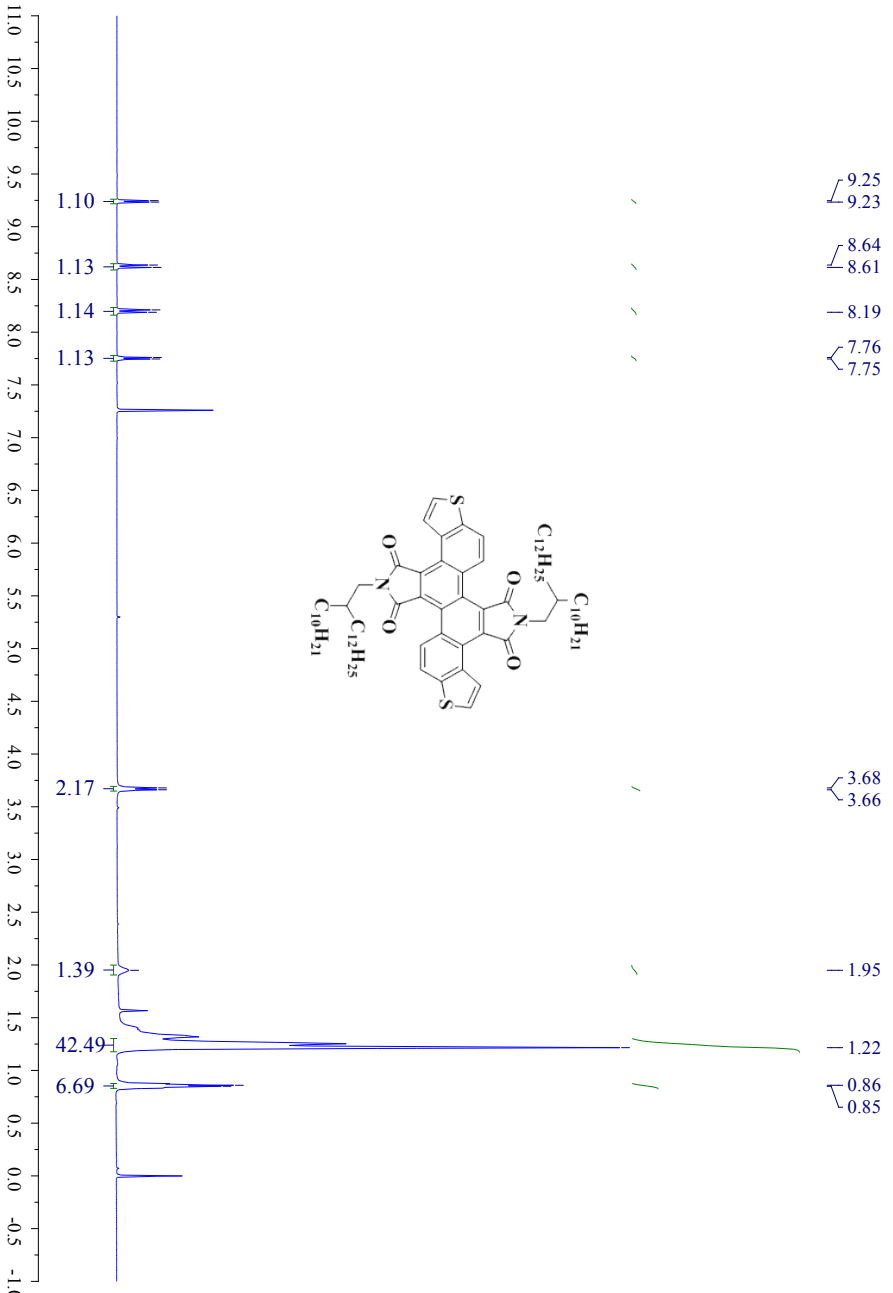
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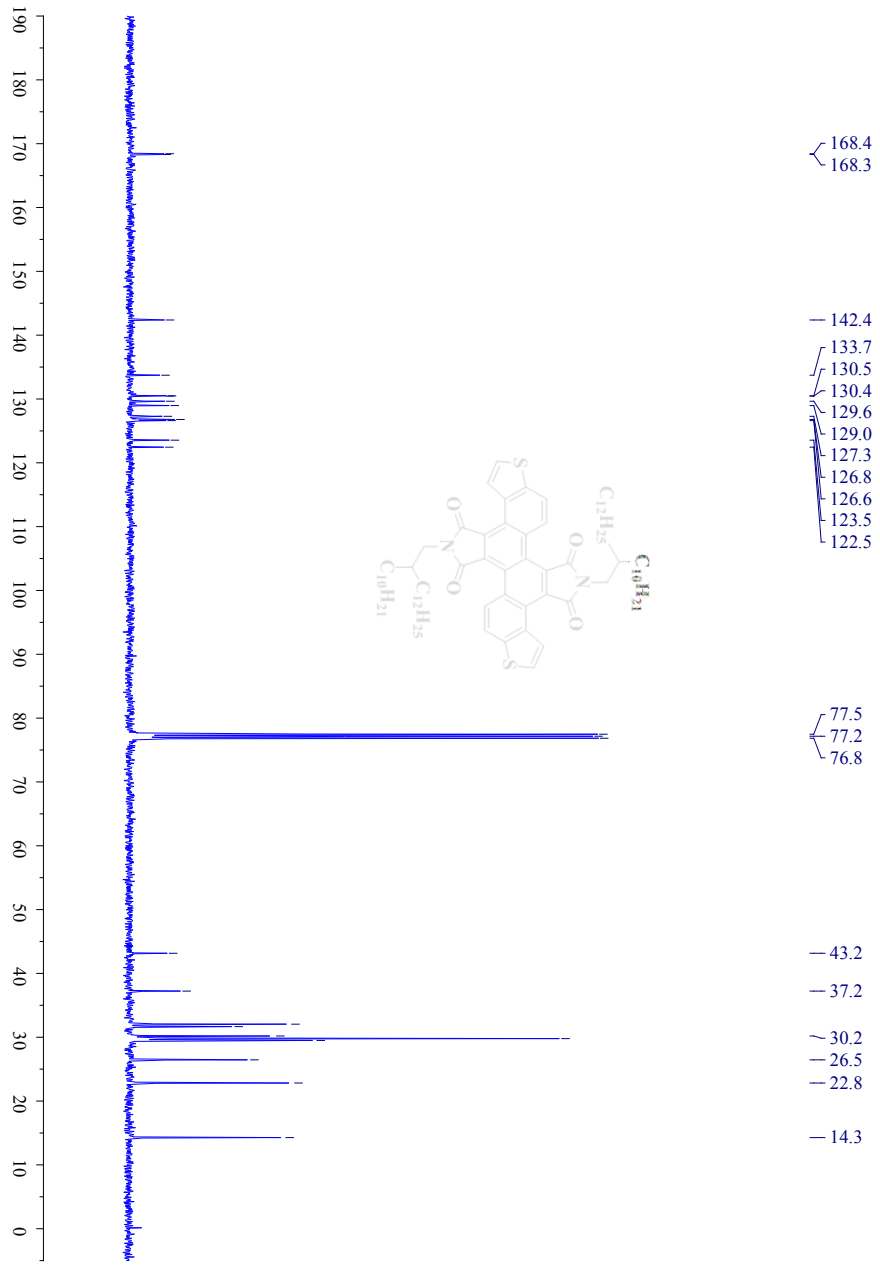
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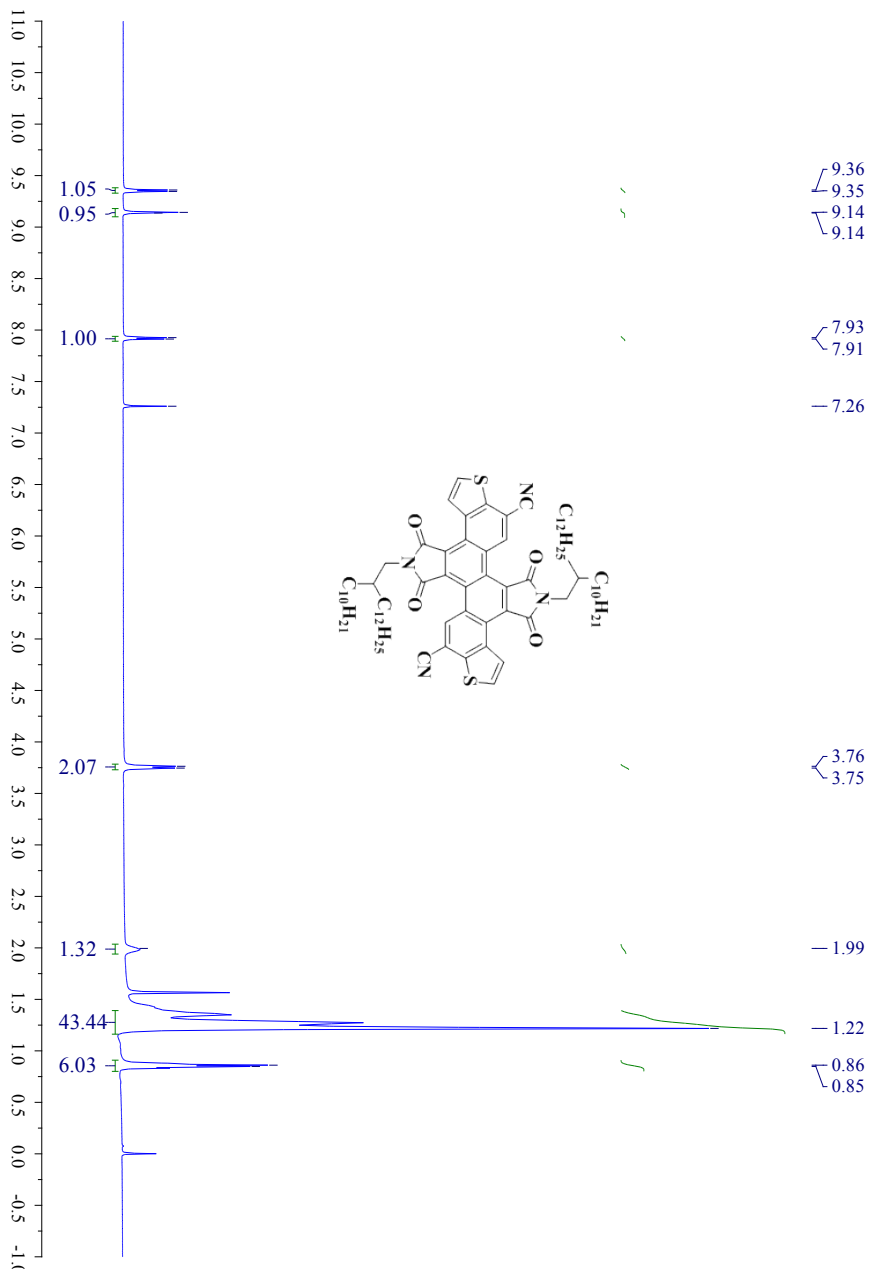
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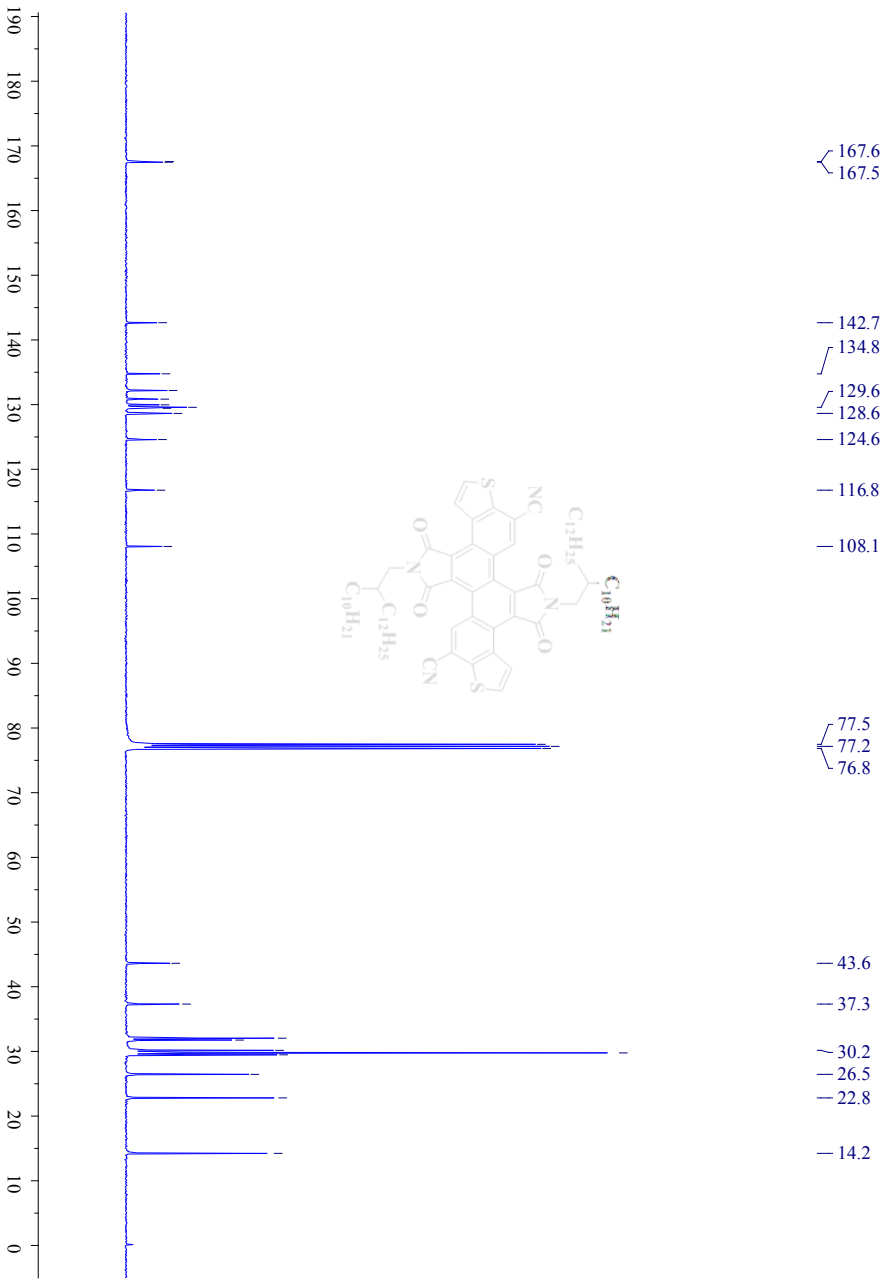
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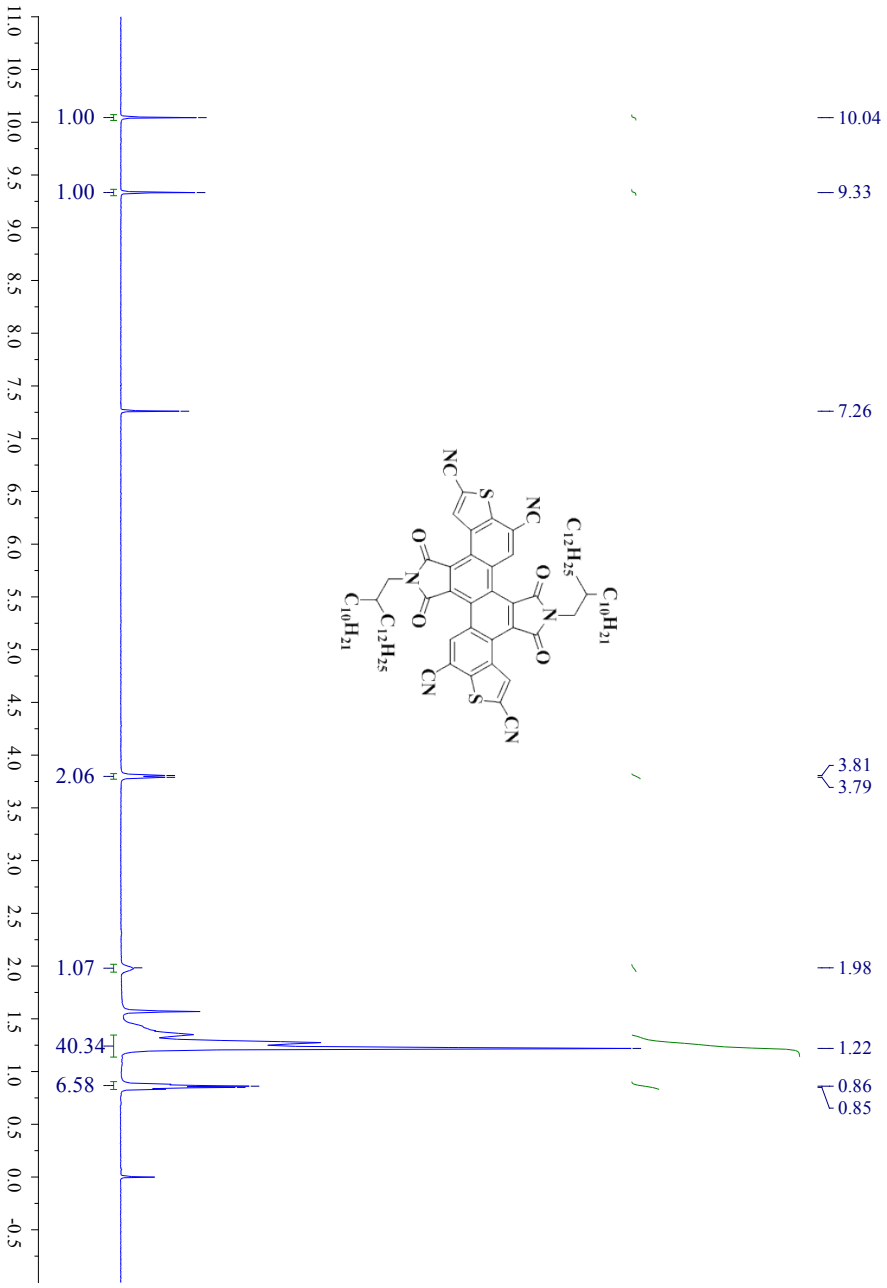
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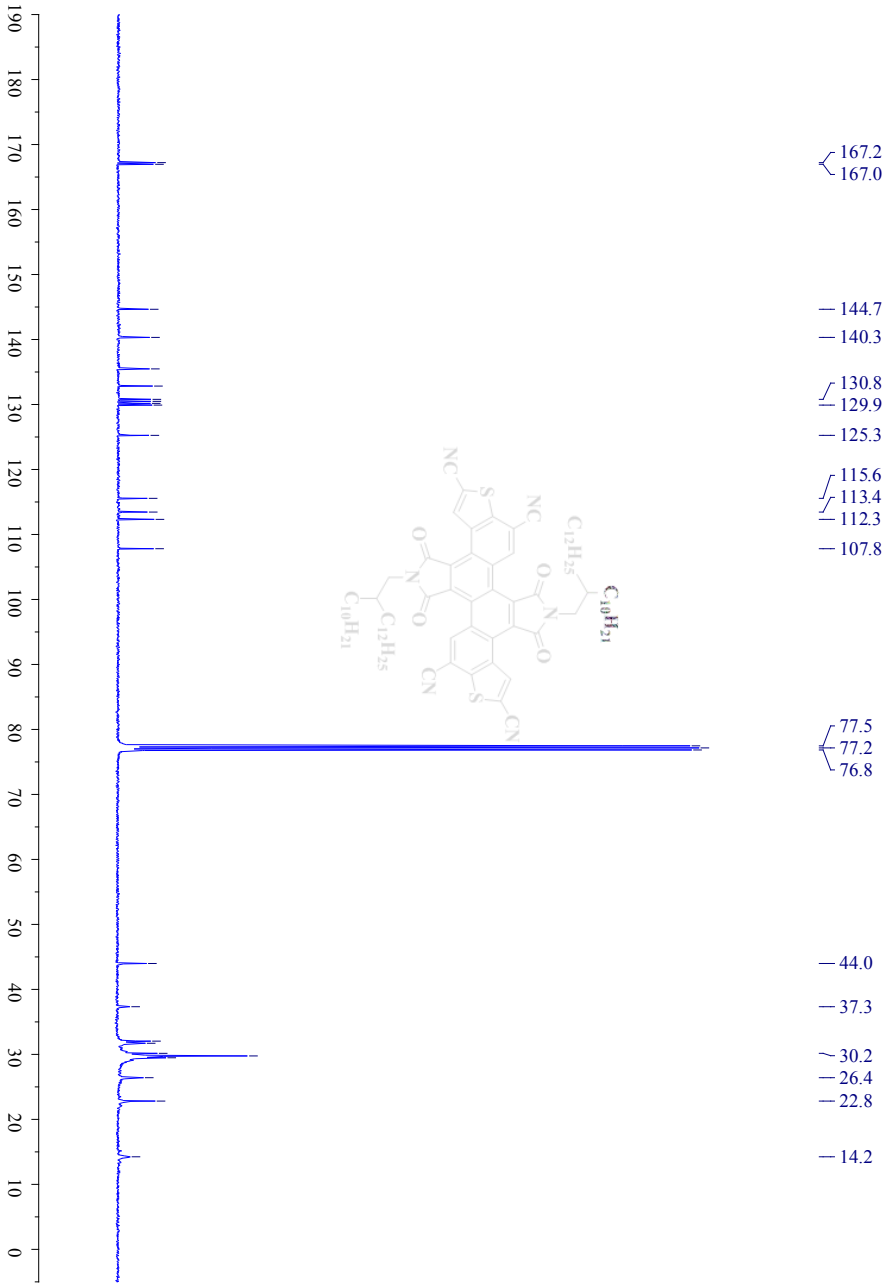
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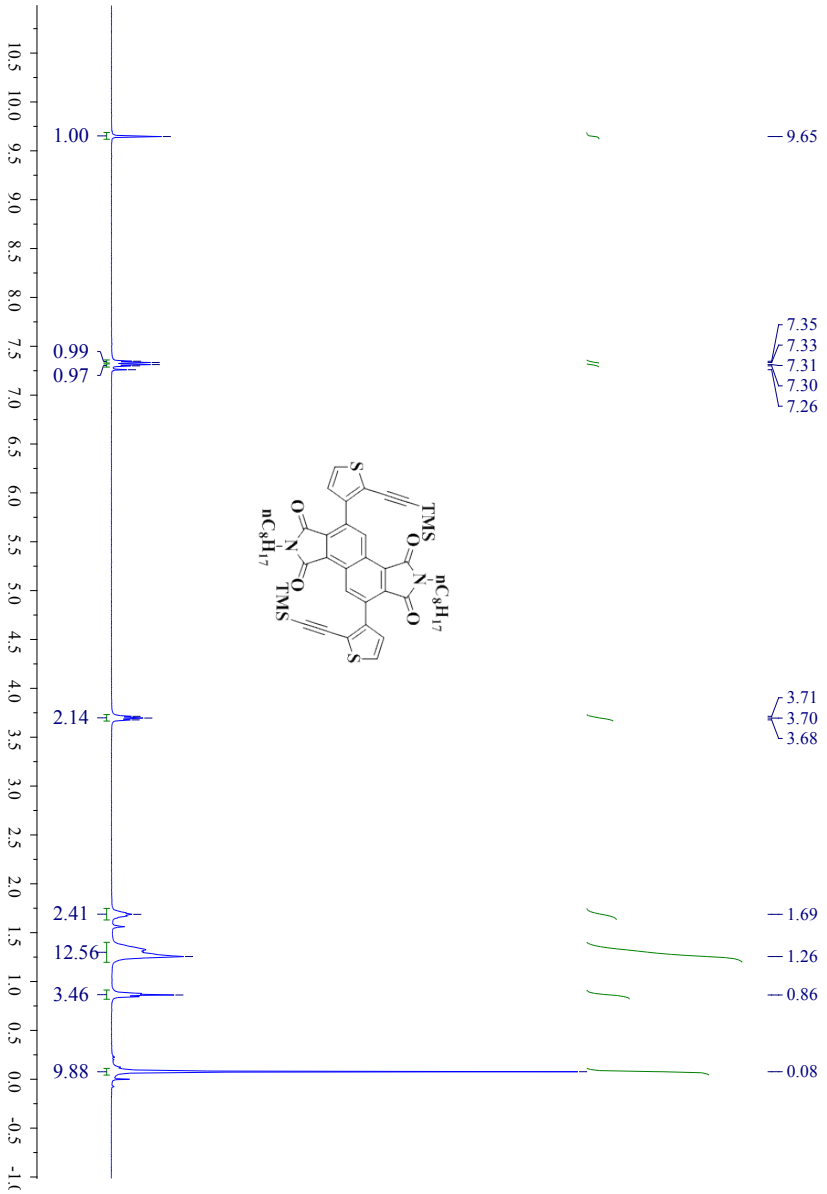
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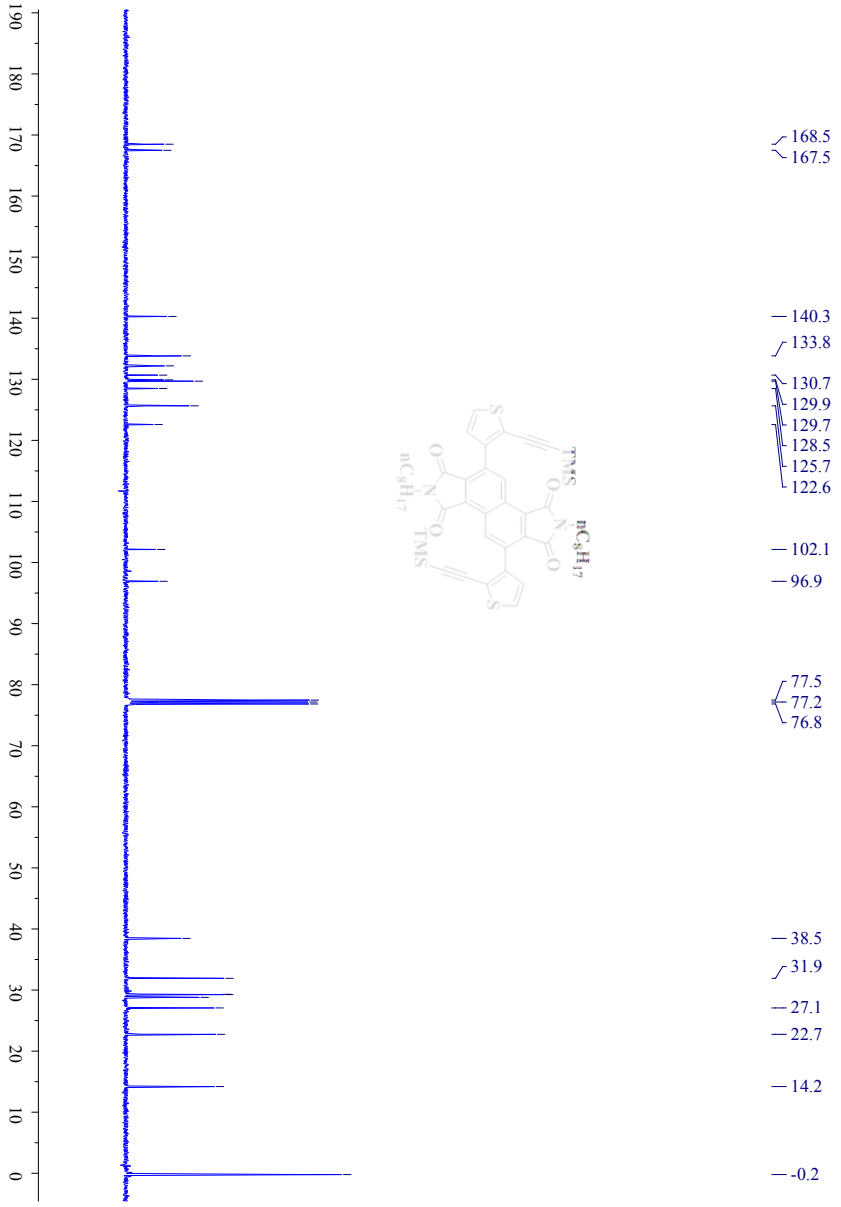
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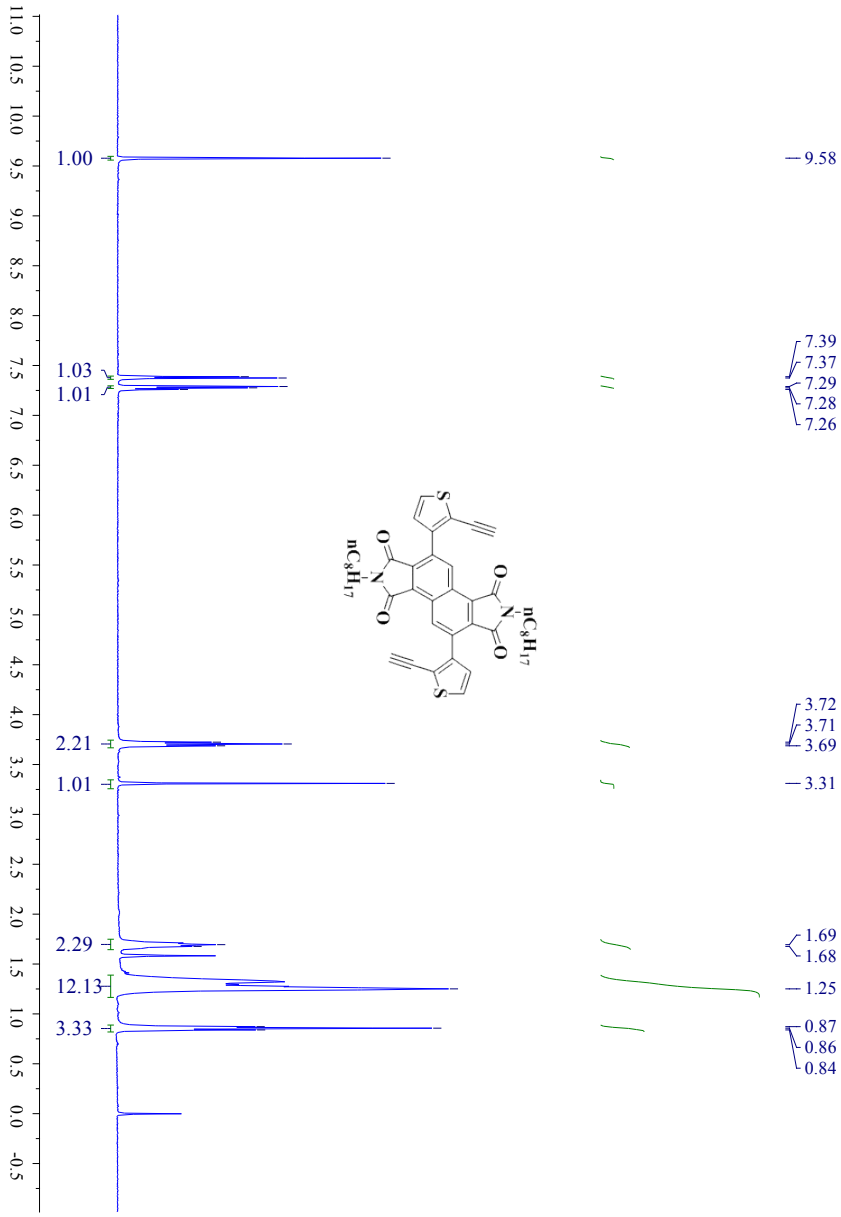
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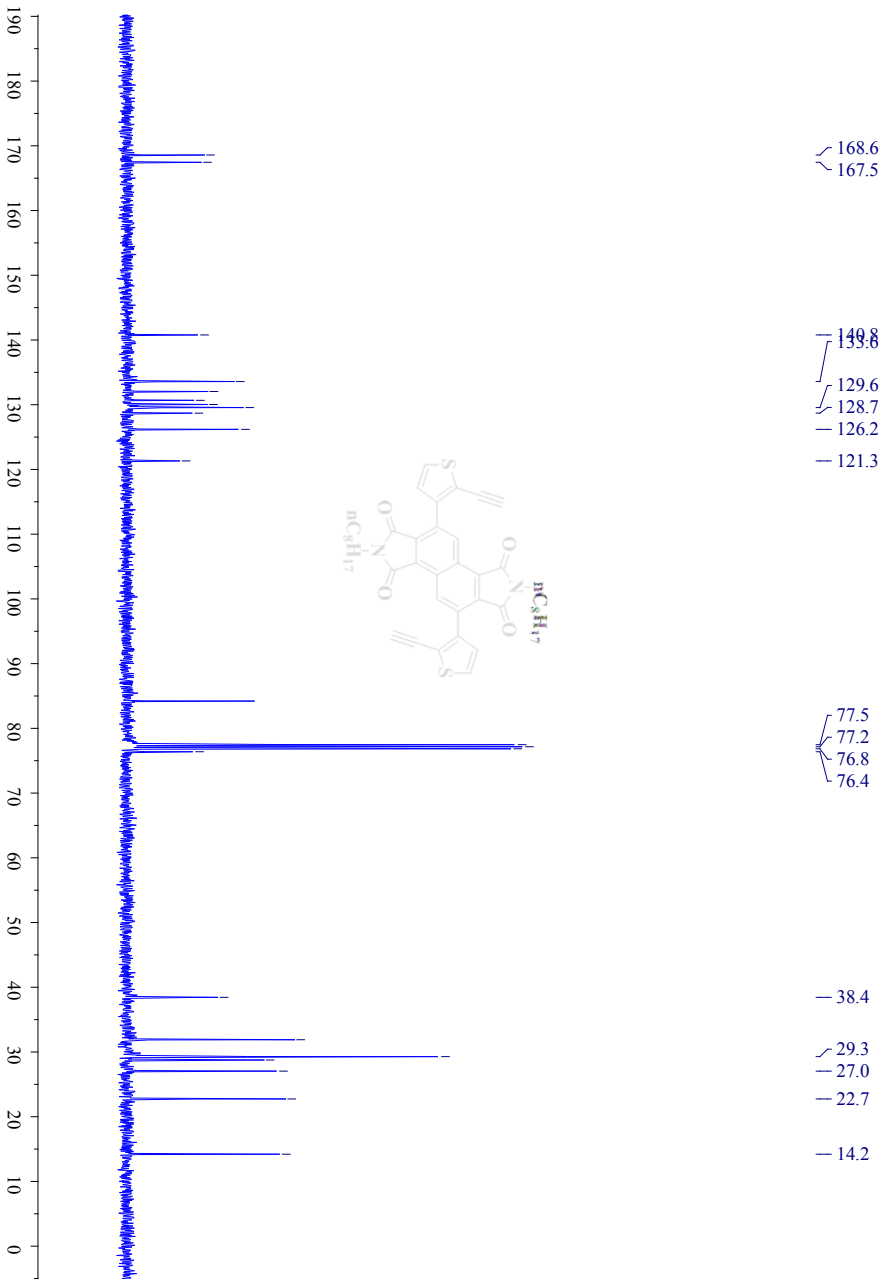
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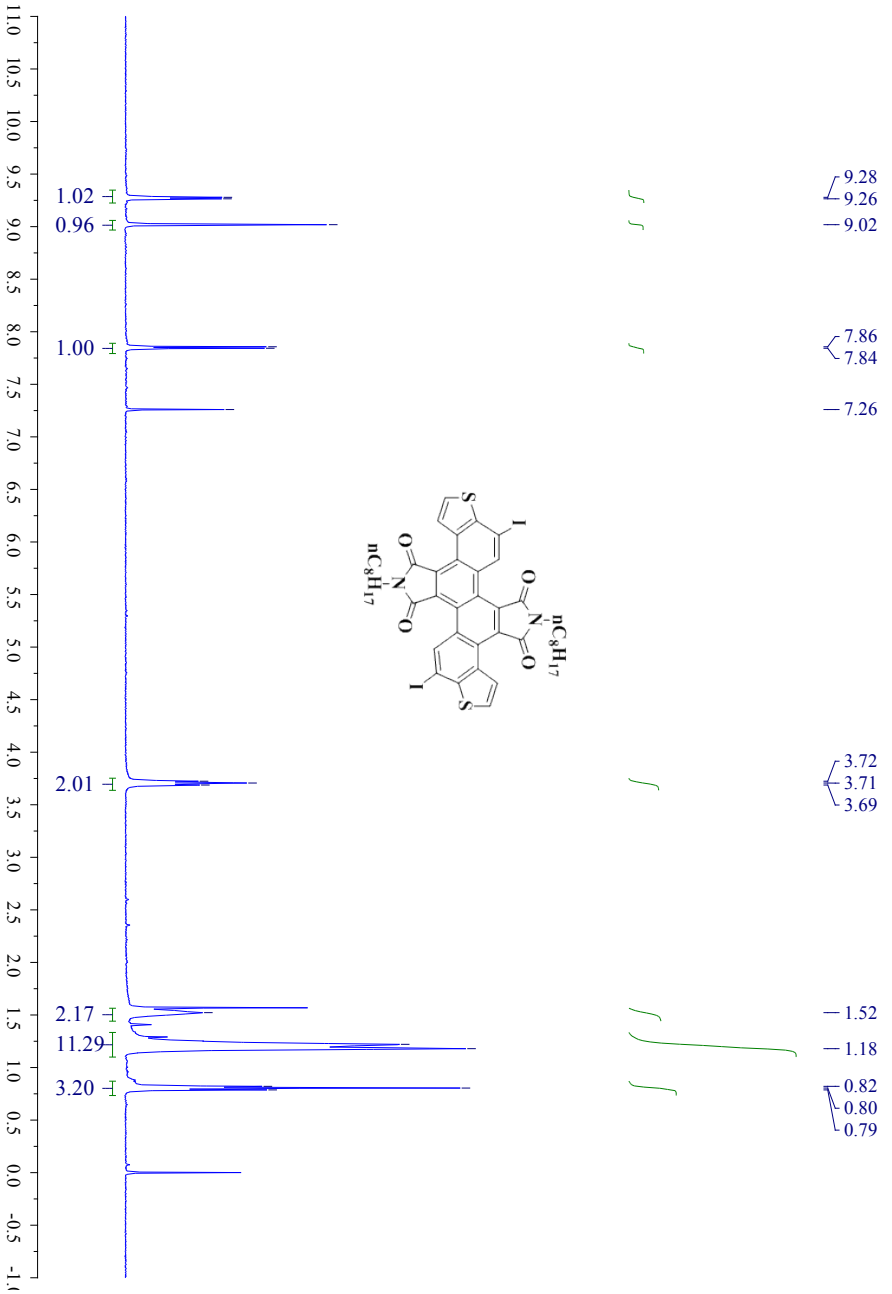
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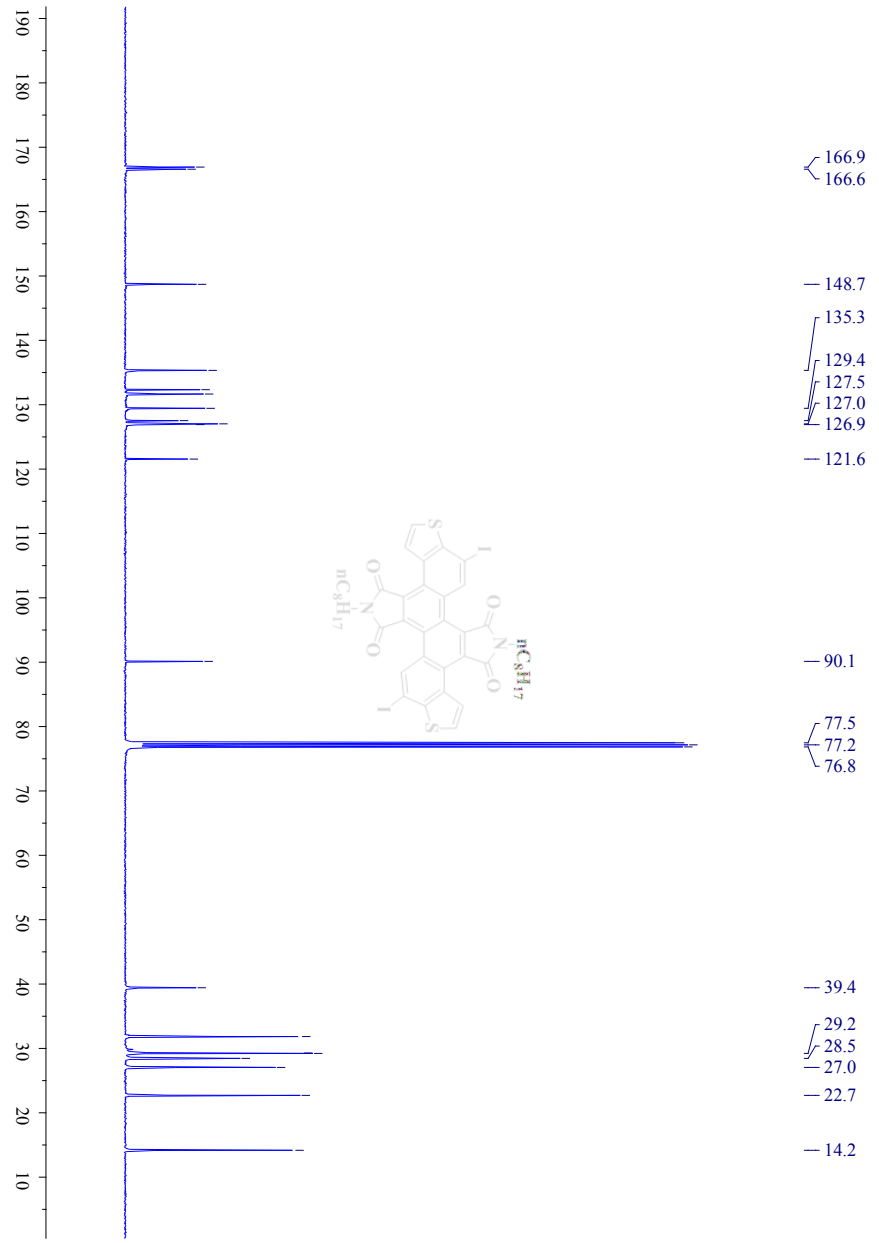
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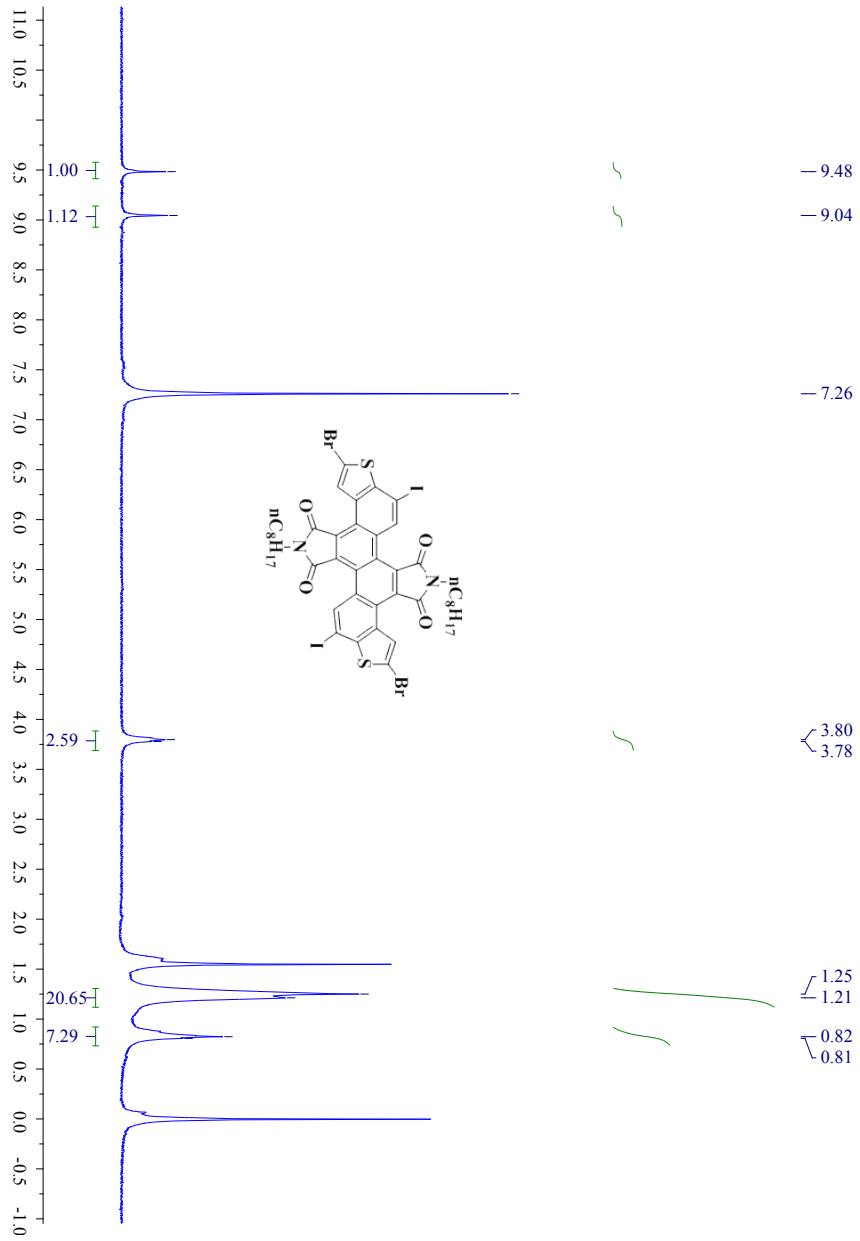
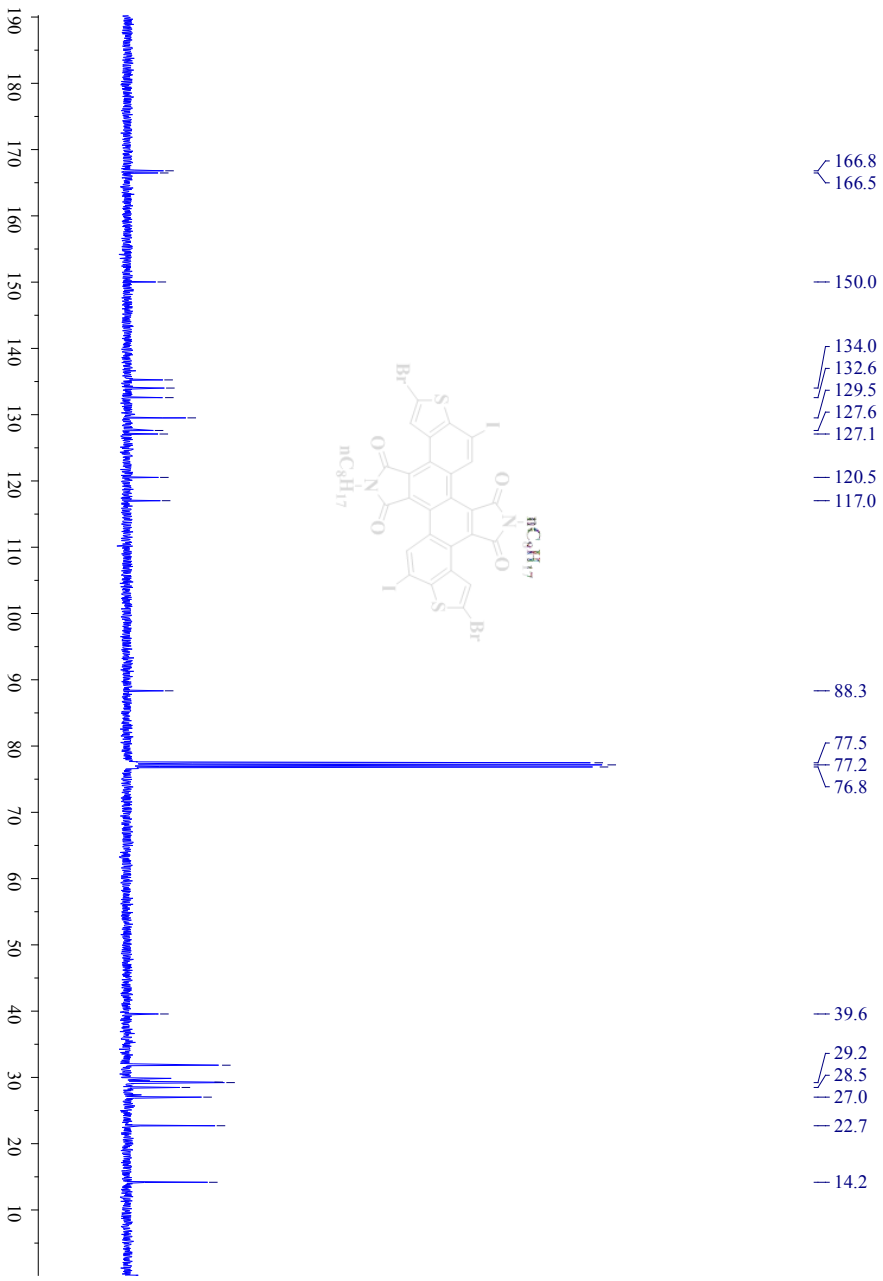
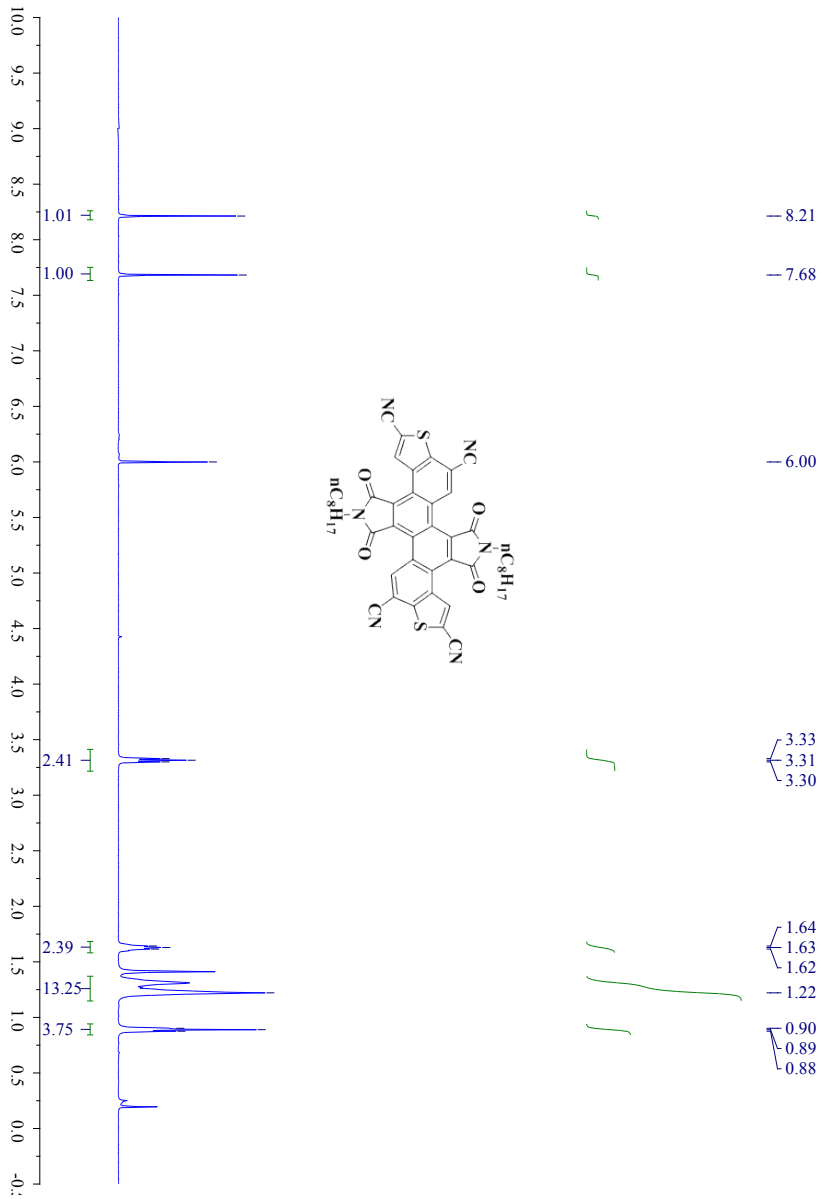
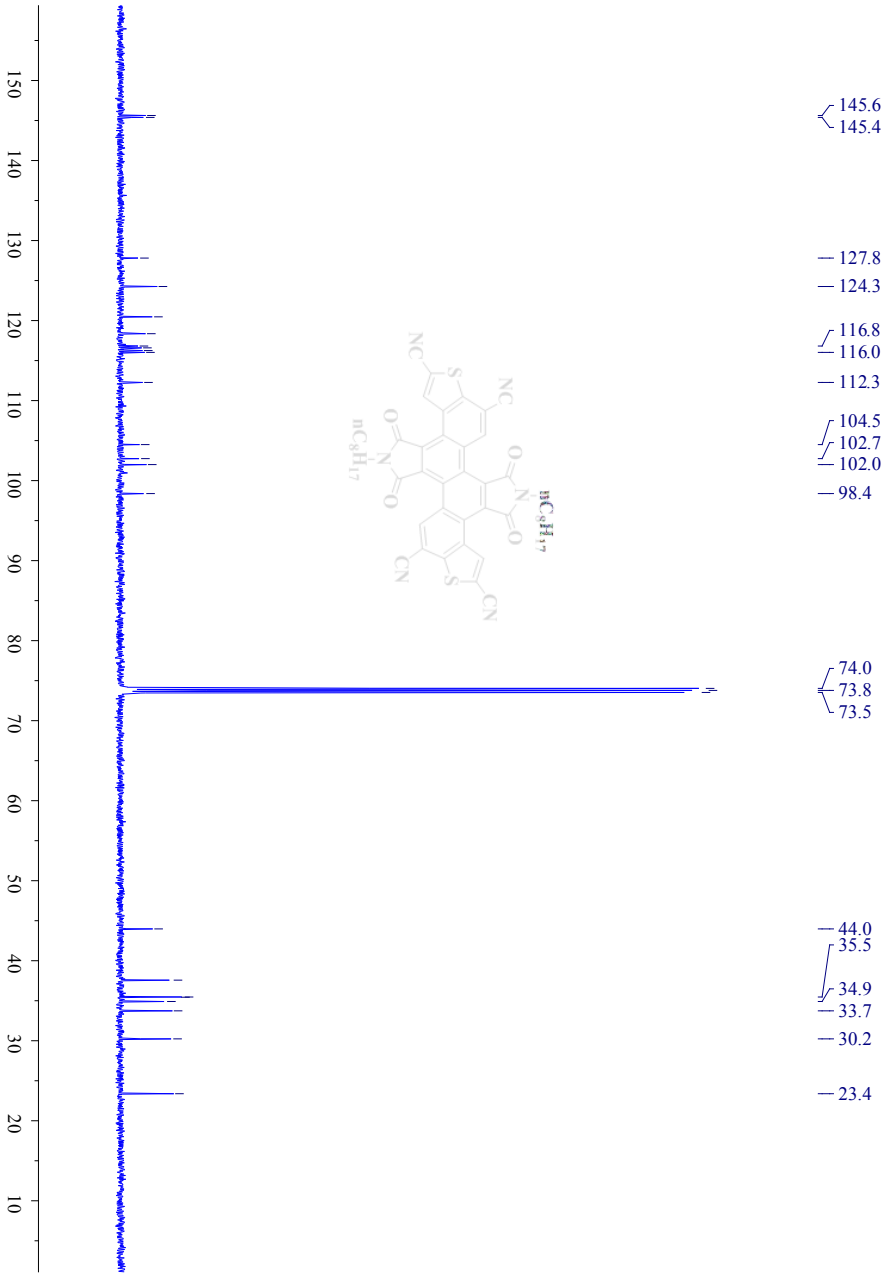
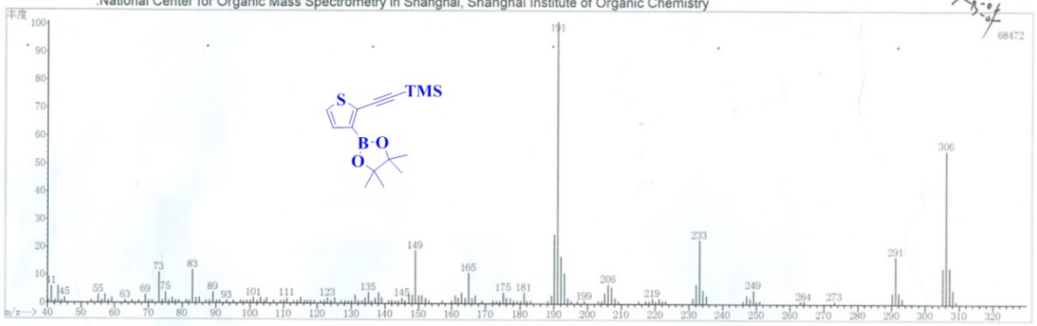

1.00
1.12
2.59
20.65
7.29
9.48
9.04
7.26
3.80
3.78
1.25
1.21
0.82
0.81


166.8
166.5
150.0
134.0
132.6
129.5
127.6
127.1
120.5
117.0
88.3
77.5
77.2
76.8
39.6
29.2
28.5
27.0
22.7
14.2


10.0 9.5 9.0 8.5 8.0 7.5 7.0 6.5 6.0 5.5 5.0 4.5 4.0 3.5 3.0 2.5 2.0 1.5 1.0 0.5 0.0 -0.
1.01
1.00
2.41
2.39
13.25
3.75
8.21
7.68
6.00
3.33
3.31
3.30
1.64
1.63
1.62
1.22
0.90
0.89
0.88
NC
S
NC
O
N
nC8H17
O
O
N
nC8H17
O
CN
S
CN


145.6
145.4
127.8
124.3
116.8
116.0
112.3
104.5
102.7
102.0
98.4
74.0
73.8
73.5
44.0
35.5
34.9
33.7
30.2
23.4

File : E:\5973N DATE\2014\201410\20141011\Snapshot\2014101102.D
Acquired : 11 Oct 2014 9:54
Sample Name : ZXQ-2-VAP
Instrument : Agilent Technologies 5973N
:National Center for Organic Mass Spectrometry in Shanghai, Shanghai Institute of Organic Chemistry



m/z	%RA	m/z	%RA	m/z	%RA	m/z	%RA	m/z	%RA	m/z	%RA	m/z	%RA	m/z	%RA	m/z	%RA	m/z	%RA	m/z
40	0.70	61	0.31	79	1.10	95	0.85	109	1.45	124	0.62	138	3.72	152	1.63	166	2.26	181	4.33	201
41	5.91	63	1.21	80	0.33	96	0.36	110	0.67	125	1.79	139	1.81	153	0.65	167	2.96	182	0.86	202
42	1.40	65	0.98	81	0.91	97	1.20	111	1.57	126	0.37	140	0.33	154	0.33	168	0.49	183	0.61	203
43	5.98	67	1.46	82	0.79	98	0.64	113	0.68	127	0.74	141	0.70	155	0.46	169	0.70	188	0.55	204
44	1.30	68	0.41	83	11.83	99	0.75	114	0.52	128	0.59	142	0.53	156	0.30	171	0.36	189	2.54	205
45	1.97	69	2.88	84	1.94	100	0.53	115	2.07	129	0.74	143	0.82	157	0.97	172	0.71	190	24.59	206
51	0.42	70	0.50	85	1.86	101	1.83	116	0.88	130	0.99	144	0.74	158	0.37	173	1.25	191	100.00	207
53	1.05	71	0.73	87	0.73	102	0.81	117	1.42	131	2.88	145	2.25	159	0.45	174	0.55	192	17.01	208
54	0.30	73	10.46	88	1.09	103	2.23	118	0.95	132	0.92	146	0.62	160	1.03	175	3.70	193	11.22	209
55	3.37	74	1.39	89	4.38	104	0.69	119	1.00	133	1.35	147	2.73	161	3.26	176	1.81	194	1.64	215
56	0.57	75	4.40	90	0.90	105	1.90	120	0.42	134	1.61	148	2.69	162	1.60	177	2.40	195	0.72	216
57	3.15	76	0.76	91	1.36	106	0.45	121	1.13	135	4.09	149	19.08	163	4.20	178	1.17	196	0.35	217
58	1.18	77	2.29	92	0.41	107	1.08	122	0.61	136	0.75	150	3.40	164	1.88	179	1.28	197	0.55	218
59	2.16	78	0.57	93	0.83	108	0.48	123	1.57	137	2.05	151	3.15	165	11.00	180	1.17	199	0.50	219

National Center for Organic Mass Spectrometry in Shanghai
Shanghai Institute of Organic Chemistry
Chinese Academic of Sciences
High Resolution MS Data Report

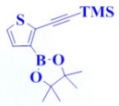
Instrument: Waters Micromass GCT Premier Ionisation Mode: EI+ Electron Energy: 70eV

Card Serial Number: GCT-P-T14-10-2985

Sample Serial Number: ZXQ-2-vap

Operator: Li

Date: 2014/10/12



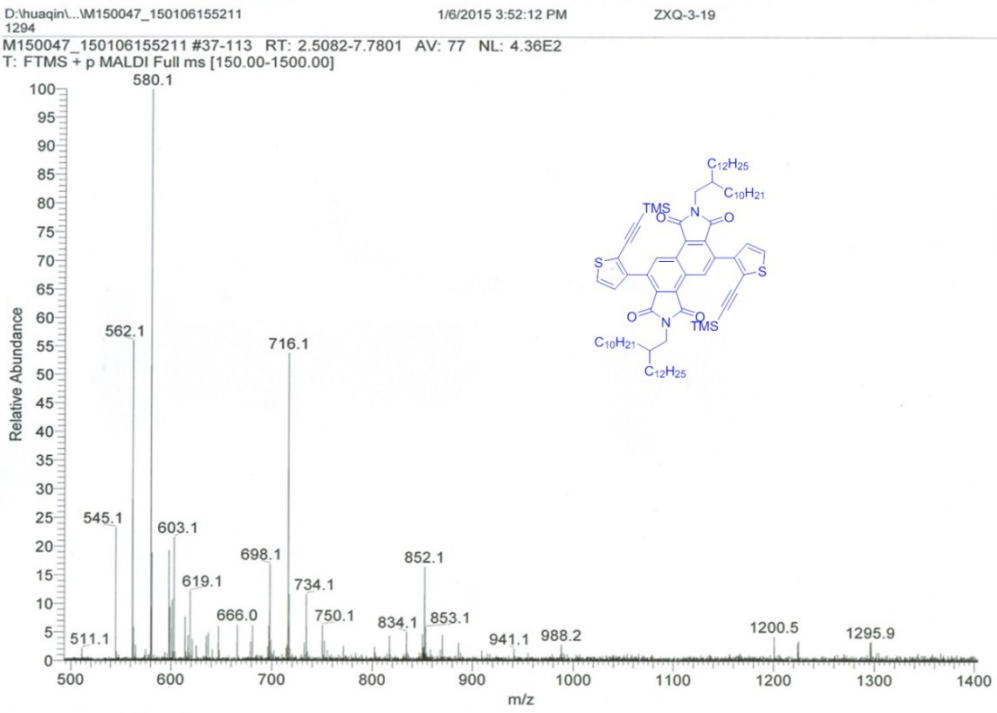
Elemental Composition Report

Single Mass Analysis
Tolerance = 5.0 PPM / DBE: min = -1.5, max = 50.0
Element prediction: Off

306.1281

Monoisotopic Mass, Odd and Even Electron Ions
1141 formula(e) evaluated with 5 results within limits (all results (up to 1000) for each mass)
Elements Used:
C: 0-60 H: 0-80 O: 0-4 S: 0-1 I: 0-2 10B: 0-2 11B: 0-2 Si: 0-1

Minimum:		2.0	5.0	-1.5		
Maximum:				50.0		
Mass	Calc. Mass	mDa	PPM	DBE	i-FIT	Formula
305.1315	305.1317	-0.2	-0.7	6.0	21.7	C15 H23 O2 S 10B Si
	305.1317	-0.2	-0.7	-1.5	5425.7	C8 H24 O I 10B2 11B2
	305.1309	0.6	2.0	15.5	10253.1	C21 H15 O 11B2
	305.1306	0.9	2.9	18.5	5859.9	C21 H11 10B2 11B2
	305.1305	1.0	3.3	6.0	1385.8	C14 H20 O4 S 10B 11B



National Center for Organic Mass Spectrometry in Shanghai
Shanghai Institute of Organic Chemistry
Chinese Academic of Sciences
High Resolution MS DATA REPORT

Instrument: Thermo Fisher Scientific LTQ FT Ultra

Card Serial Number : M20150048

Sample Serial Number: ZXQ-3-19

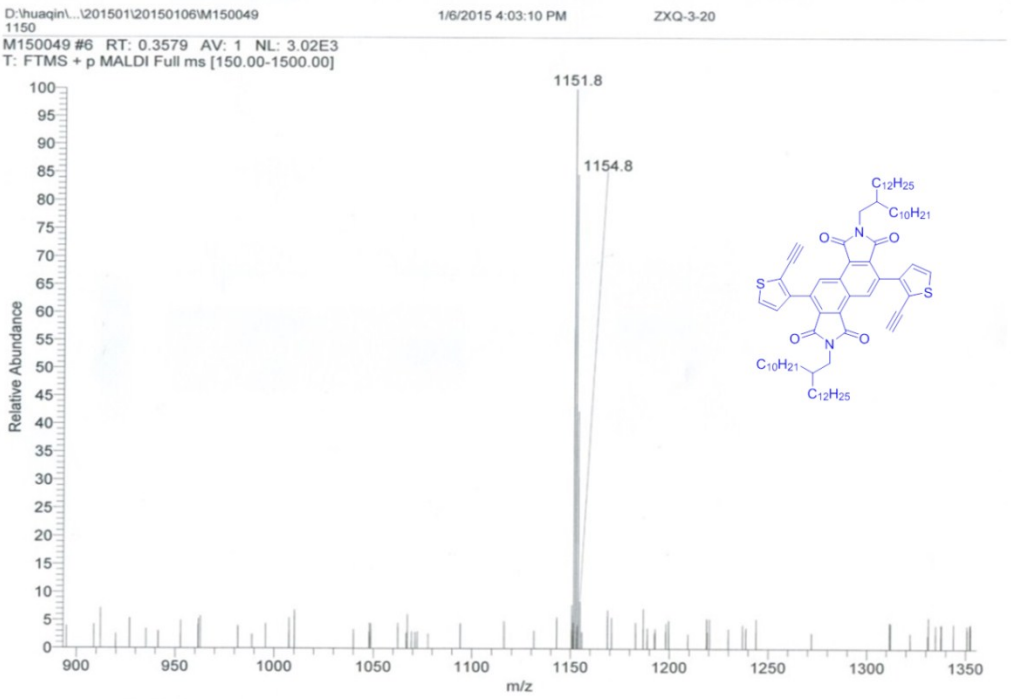
Operator : HUAQIN Date: 2015/01/06

Operation Mode: MALDI_DHB

Elemental composition search on mass 1295.85

m/z= 1290.85-1300.85

m/z	Theo. Mass	Delta (ppm)	RDB equiv.	Composition
1295.8504	1295.8511	-0.55	23.0	$C_{80}H_{121}O_5N_3S_2Si$
	1295.8457	3.63	22.5	$C_{80}H_{123}O_4N_2S_2Si_2$



National Center for Organic Mass Spectrometry in Shanghai
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Chinese Academic of Sciences
High Resolution MS DATA REPORT

Instrument: Thermo Fisher Scientific LTQ FT Ultra

Card Serial Number : M20150050

Sample Serial Number: ZXQ-3-20

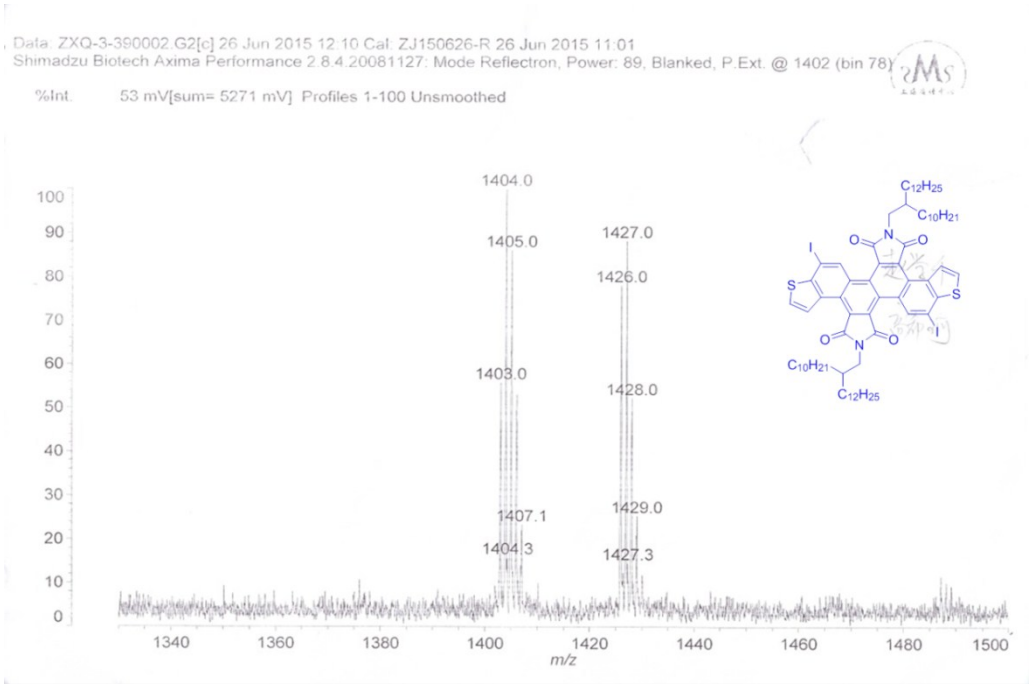
Operator : HUAQIN Date: 2015/01/06

Operation Mode: MALDI_DHB

Elemental composition search on mass 1151.77

m/z= 1146.77-1156.77

m/z	Theo. Mass	Delta (ppm)	RDB equiv.	Composition
1151.7711	1151.7707	0.36	26.5	$C_{79}H_{107}O_2S_2$
	1151.7700	0.92	17.5	$C_{71}H_{111}O_4N_2S_3$
	1151.7727	-1.41	22.0	$C_{74}H_{109}ON_3S_3$
	1151.7694	1.52	27.0	$C_{77}H_{105}ON_3S_2$
	1151.7741	-2.57	21.5	$C_{76}H_{111}O_2S_3$
	1151.7667	3.85	22.5	$C_{74}H_{107}O_4N_2S_2$
	1151.7759	-4.14	27.0	$C_{78}H_{105}O_4NS$
	1151.7660	4.45	32.0	$C_{80}H_{101}ON_3S$
	1151.7633	6.77	27.5	$C_{77}H_{103}O_4N_2S$
	1151.7793	-7.07	22.0	$C_{75}H_{109}O_4NS_2$



National Center for Organic Mass Spectrometry in Shanghai
Shanghai Institute of Organic Chemistry
Chinese Academic of Sciences
High Resolution MS DATA REPORT

Instrument: Thermo Fisher Scientific LTQ FT Ultra

Card Serial Number : M152396

Sample Serial Number: zxq-3-39

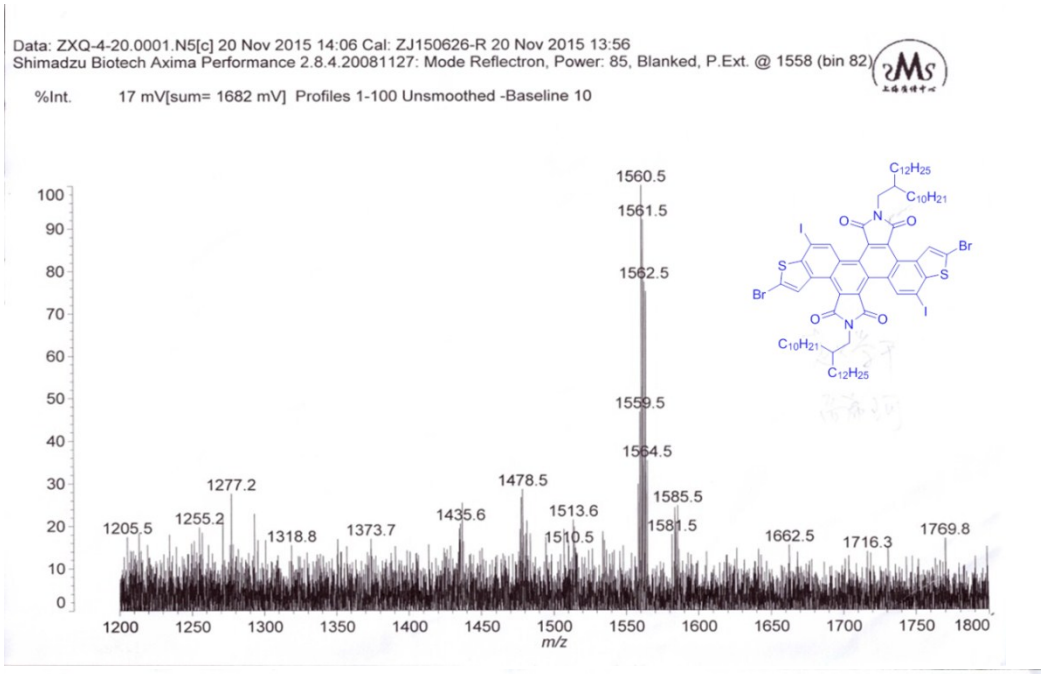
Operator : HUAQIN Date: 2015/07/08

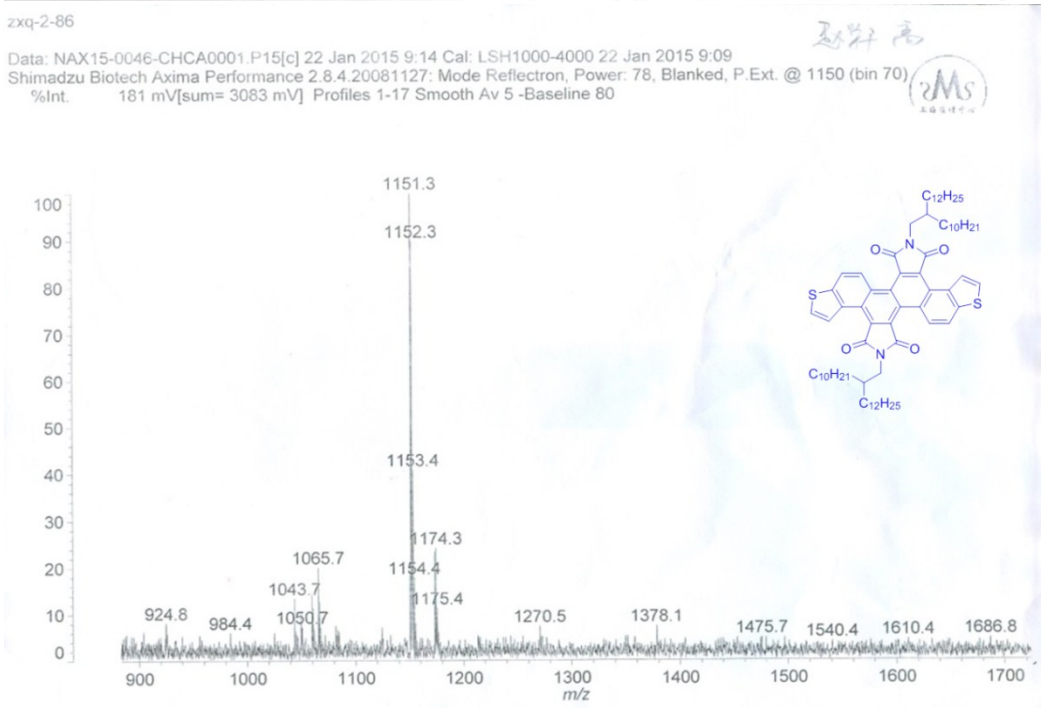
Operation Mode: MALDI-FT_DHB

Elemental composition search on mass 1403.56

m/z= 1398.56-1408.56

m/z	Theo. Mass	Delta (ppm)	RDB equiv.	Composition
1403.5639	1403.5640	-0.08	26.5	$C_{79}H_{105}O_2I_2S_2$
	1403.5626	0.88	27.0	$C_{77}H_{103}ON_3I_2S_2$
	1403.5600	2.79	22.5	$C_{74}H_{105}O_4N_2I_2S_2$
	1403.5593	3.28	32.0	$C_{80}H_{99}ON_3I_2S$
	1403.5692	-3.77	27.0	$C_{78}H_{103}O_4NI_2S$


Data: ZXQ-4-20.0001.N5[c] 20 Nov 2015 14:06 Cal: ZJ150626-R 20 Nov 2015 13:56
Shimadzu Biotech Axima Performance 2.8.4.20081127: Mode Reflectron, Power: 85, Blanked, P.Ext. @ 1558 (bin 82)
%Int. 17 mV[sum= 1682 mV] Profiles 1-100 Unsmoothed -Baseline 10
1560.5
1561.5
1562.5
1559.5
1564.5
1478.5
1277.2
1585.5
1513.6
1435.6
1581.5
1255.2
1205.5
1318.8
1373.7
1510.5
1662.5
1716.3
1769.8
m/z


zxq-2-86
Data: NAX15-0046-CHCA0001.P15[c] 22 Jan 2015 9:14 Cal: LSH1000-4000 22 Jan 2015 9:09
Shimadzu Biotech Axima Performance 2.8.4.20081127: Mode Reflectron, Power: 78, Blanked, P.Ext. @ 1150 (bin 70)
%Int. 181 mV[sum= 3083 mV] Profiles 1-17 Smooth Av 5 -Baseline 80
1151.3
1152.3
1153.4
1174.3
1065.7
1154.4
1043.7
1175.4
924.8
984.4
1050.7
1270.5
1378.1
1475.7
1540.4
1610.4
1686.8
m/z

National Center for Organic Mass Spectrometry in Shanghai
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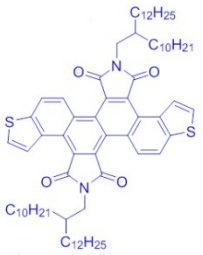
Chinese Academic of Sciences
High Resolution MS DATA REPORT

Instrument: Thermo Fisher Scientific LTQ FT Ultra

Card Serial Number : M150372



Sample Serial Number: ZXQ-2-86

Operator : HUAQIN Date: 2015/01/26

Operation Mode: MALDI_DHB

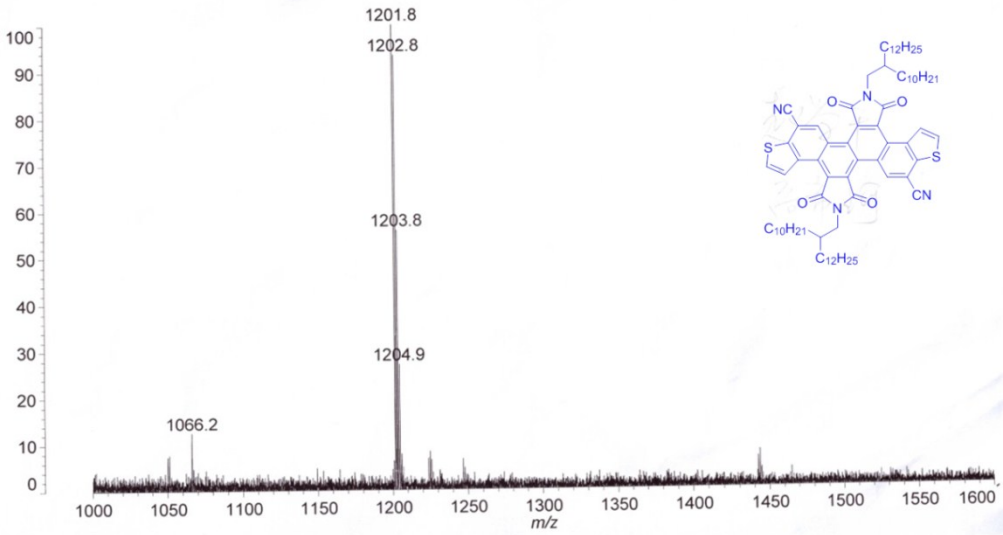
Elemental composition search on mass 1150.76

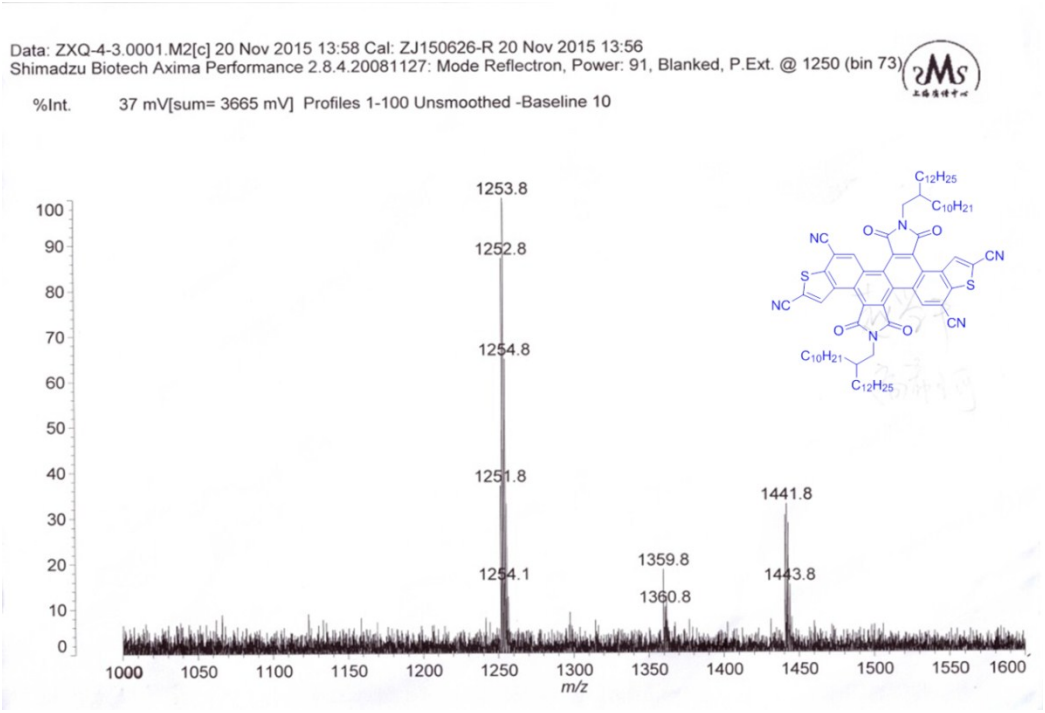
m/z= 1145.76-1155.76

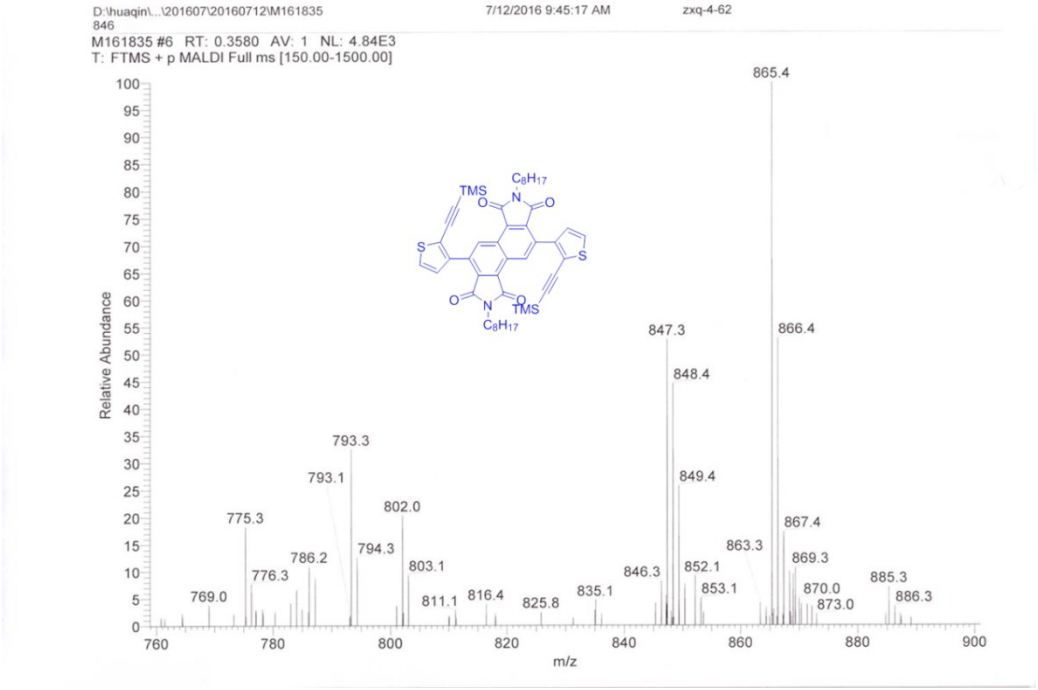
m/z	Theo. Mass	Delta (ppm)	RDB equiv.	Composition
1150.7606	1150.7615	-0.82	27.5	$C_{77}H_{104}ON_3S_2$
	1150.7622	-1.42	18.0	$C_{71}H_{110}O_4N_2S_3$
	1150.7589	1.51	23.0	$C_{74}H_{106}O_4N_2S_2$
	1150.7629	-1.99	27.0	$C_{79}H_{106}O_2S_2$
	1150.7582	2.11	32.5	$C_{80}H_{100}ON_3S$
	1150.7649	-3.75	22.5	$C_{74}H_{108}ON_3S_3$
	1150.7555	4.44	28.0	$C_{77}H_{102}O_4N_2S$
	1150.7662	-4.92	22.0	$C_{76}H_{110}O_2S_3$

Data: ZXQ-3-67.0001.N3[c] 20 Nov 2015 14:02 Cal: ZJ150626-R 20 Nov 2015 13:56
Shimadzu Biotech Axima Performance 2.8.4.20081127: Mode Reflectron, Power: 86, Blanked, P.Ext. @ 1200 (bin 72)

%Int. 89 mV[sum= 8909 mV] Profiles 1-100 Unsmoothed -Baseline 10

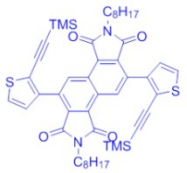



Data: ZXQ-4-3.0001.M2[c] 20 Nov 2015 13:58 Cal: ZJ150626-R 20 Nov 2015 13:56
Shimadzu Biotech Axima Performance 2.8.4.20081127: Mode Reflectron, Power: 91, Blanked, P.Ext. @ 1250 (bin 73)
%Int.
37 mV[sum= 3665 mV] Profiles 1-100 Unsmoothed -Baseline 10
1253.8
1252.8
1254.8
1251.8
1441.8
1359.8
1254.1
1443.8
1360.8
m/z


D:\huaqin\...\201607\20160712\M161835
846
7/12/2016 9:45:17 AM
zxq-4-62
M161835 #6 RT: 0.3580 AV: 1 NL: 4.84E3
T: FTMS + p MALDI Full ms [150.00-1500.00]
865.4
847.3
866.4
848.4
793.3
793.1
849.4
802.0
775.3
867.4
794.3
786.2
863.3
776.3
803.1
852.1
869.3
769.0
846.3
885.3
811.1
816.4
825.8
835.1
853.1
870.0
886.3
873.0
Relative Abundance
m/z

National Center for Organic Mass Spectrometry in Shanghai
Shanghai Institute of Organic Chemistry
Chinese Academic of Sciences
High Resolution MS DATA REPORT

Instrument: Thermo Fisher Scientific LTQ FT Ultra



Card Serial Number : M161836

Sample Serial Number: zxq-4-62

Operator : HUAQIN Date: 2016/7/12

Operation Mode: MALDI-FT_DHB

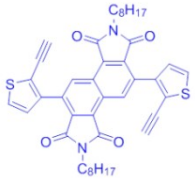
Elemental composition search on mass 847.34

m/z= 842.34-852.34

m/z	Theo. Mass	Delta (ppm)	RDB equiv.	Composition
847.3445	847.3449	-0.55	22.5	$C_{48}H_{59}O_4N_2S_2Si_2$

National Center for Organic Mass Spectrometry in Shanghai
Shanghai Institute of Organic Chemistry
Chinese Academic of Sciences
High Resolution MS DATA REPORT

Instrument: Thermo Fisher Scientific LTQ FT Ultra



Card Serial Number : M161838

Sample Serial Number: zxq-4-63

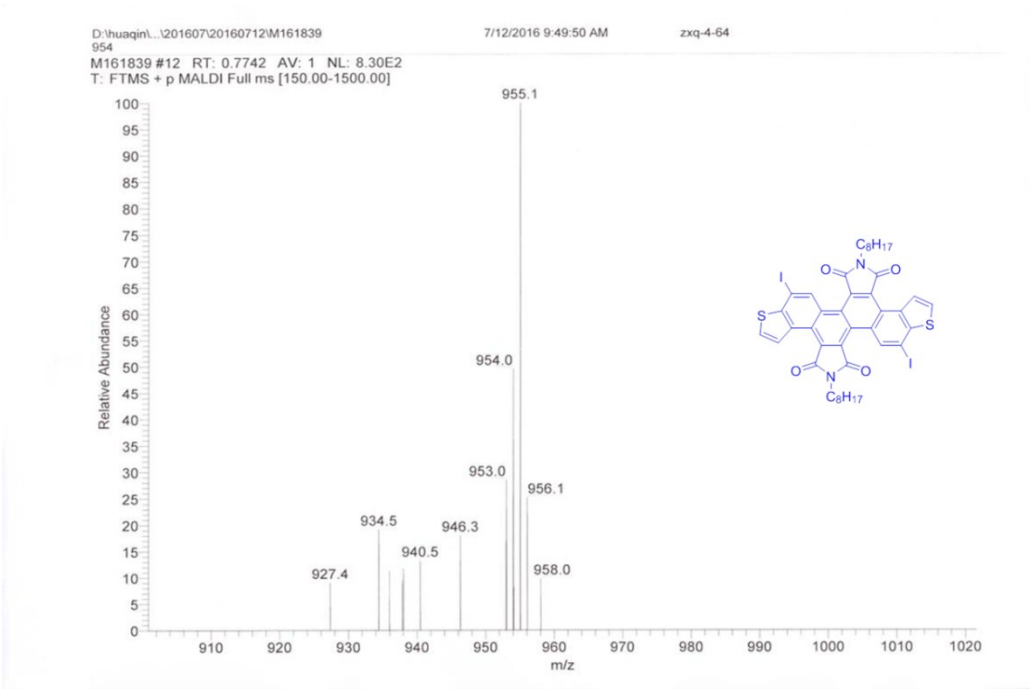
Operator : HUAQIN Date: 2016/7/12

Operation Mode: MALDI-FT_DHB

Elemental composition search on mass 703.27

m/z= 698.27-708.27

m/z	Theo. Mass	Delta (ppm)	RDB equiv.	Composition
703.2663	703.2665	-0.31	31.5	$C_{50}H_{39}O_2S$
	703.2659	0.62	22.5	$C_{42}H_{43}O_4N_2S_2$
	703.2652	1.60	32.0	$C_{48}H_{37}ON_3S$
	703.2686	-3.19	27.0	$C_{45}H_{41}ON_3S_2$



National Center for Organic Mass Spectrometry in Shanghai
Shanghai Institute of Organic Chemistry
Chinese Academic of Sciences
High Resolution MS DATA REPORT

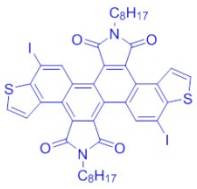
Instrument: Thermo Fisher Scientific LTQ FT Ultra

Card Serial Number : M161840

Sample Serial Number: zxq-4-64

Operator : HUAQIN Date: 2016/7/12

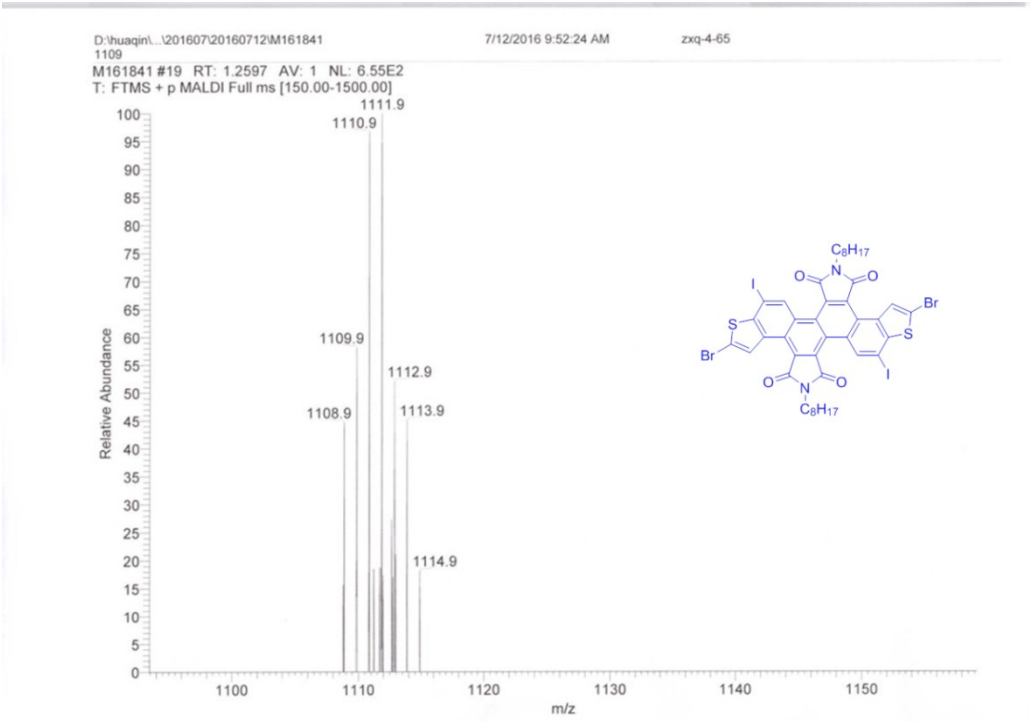
Operation Mode: MALDI-FT_DHB



Elemental composition search on mass 955.06

m/z= 950.06-960.06

m/z	Theo. Mass	Delta (ppm)	RDB equiv.	Composition
955.0593	955.0592	0.10	22.5	$C_{42}H_{41}O_4N_2I_2S_2$
	955.0598	-0.58	31.5	$C_{50}H_{37}O_2I_2S$
	955.0585	0.83	32.0	$C_{48}H_{35}ON_3I_2S$
	955.0618	-2.70	27.0	$C_{45}H_{39}ON_3I_2S_2$
	955.0558	3.63	27.5	$C_{45}H_{37}O_4N_2I_2S$
	955.0632	-4.11	26.5	$C_{47}H_{41}O_2I_2S_2$



National Center for Organic Mass Spectrometry in Shanghai
Shanghai Institute of Organic Chemistry
Chinese Academic of Sciences
High Resolution MS DATA REPORT

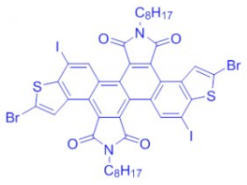
Instrument: Thermo Fisher Scientific LTQ FT Ultra

Card Serial Number : M161842

Sample Serial Number: zxq-4-65

Operator : HUAQIN Date: 2016/7/12

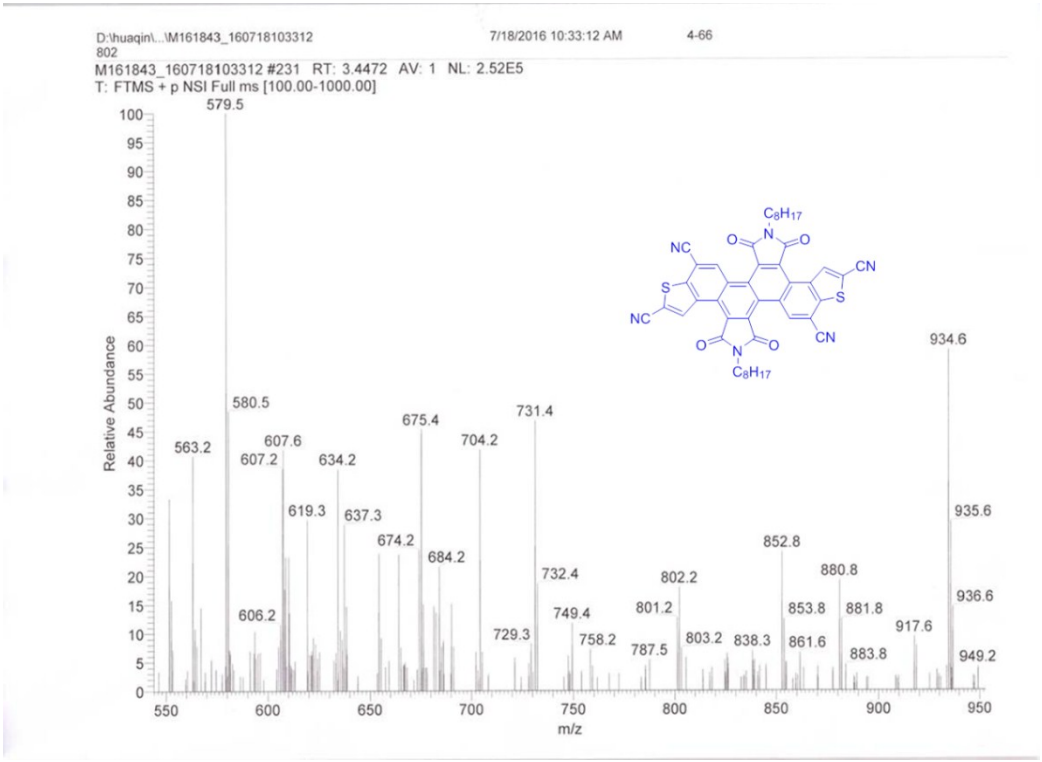
Operation Mode: MALDI-FT_DHB



Elemental composition search on mass 1109.87

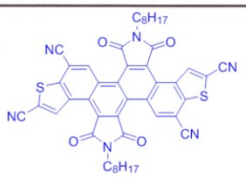
m/z= 1104.87-1114.87

m/z	Theo. Mass	Delta (ppm)	RDB equiv.	Composition
1109.8745	1109.8750	-0.48	27.5	$C_{45}H_{36}ON_3Br_2I_2S_2$
	1109.8730	1.35	32.0	$C_{50}H_{34}O_2Br_2I_2S$
	1109.8764	-1.69	27.0	$C_{47}H_{38}O_2Br_2I_2S_2$
	1109.8724	1.94	23.0	$C_{42}H_{38}O_4N_2Br_2I_2S_2$
	1109.8717	2.56	32.5	$C_{48}H_{32}ON_3Br_2I_2S$
	1109.8782	-3.32	32.5	$C_{49}H_{32}O_4NBr_2I_2$
	1109.8785	-3.61	34.0	$C_{48}H_{29}O_5N_2BrI_2S_2$
	1109.8690	4.97	28.0	$C_{45}H_{34}O_4N_2Br_2I_2S$



National Center for Organic Mass Spectrometry in Shanghai
Shanghai Institute of Organic Chemistry
Chinese Academic of Sciences
High Resolution MS DATA REPORT

Instrument: Thermo Fisher Scientific LTQ FT Ultra



Card Serial Number : M161844

Sample Serial Number: zxq-4-66

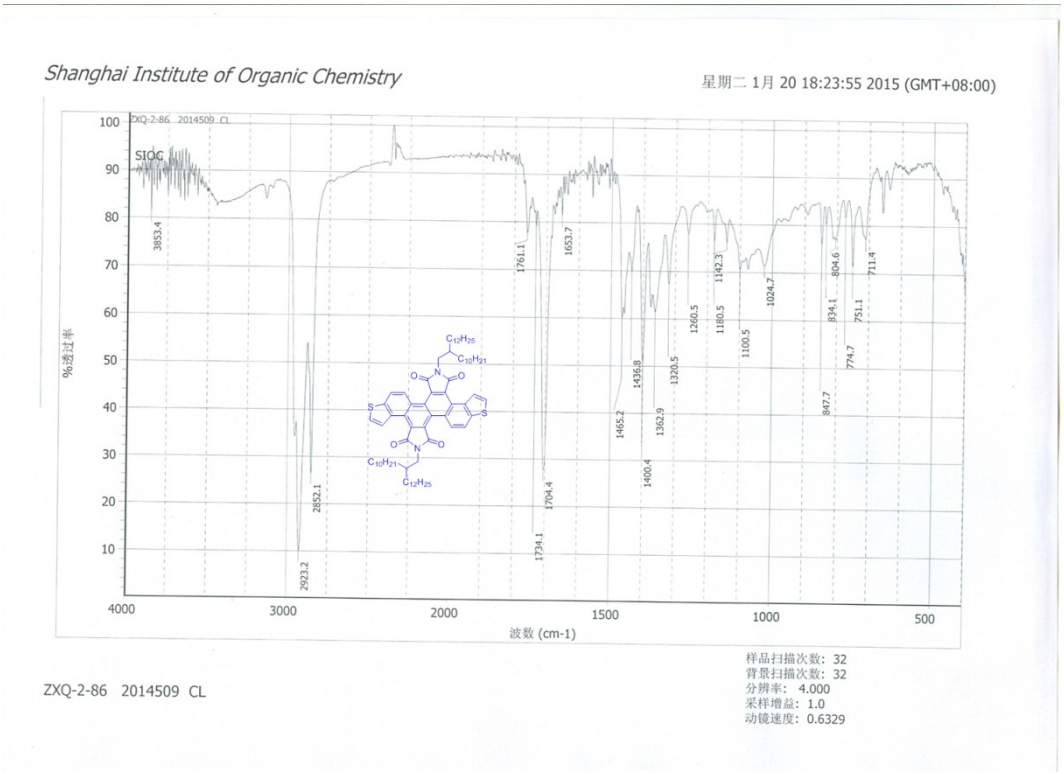
Operator : HUAQIN Date: 2016/7/12

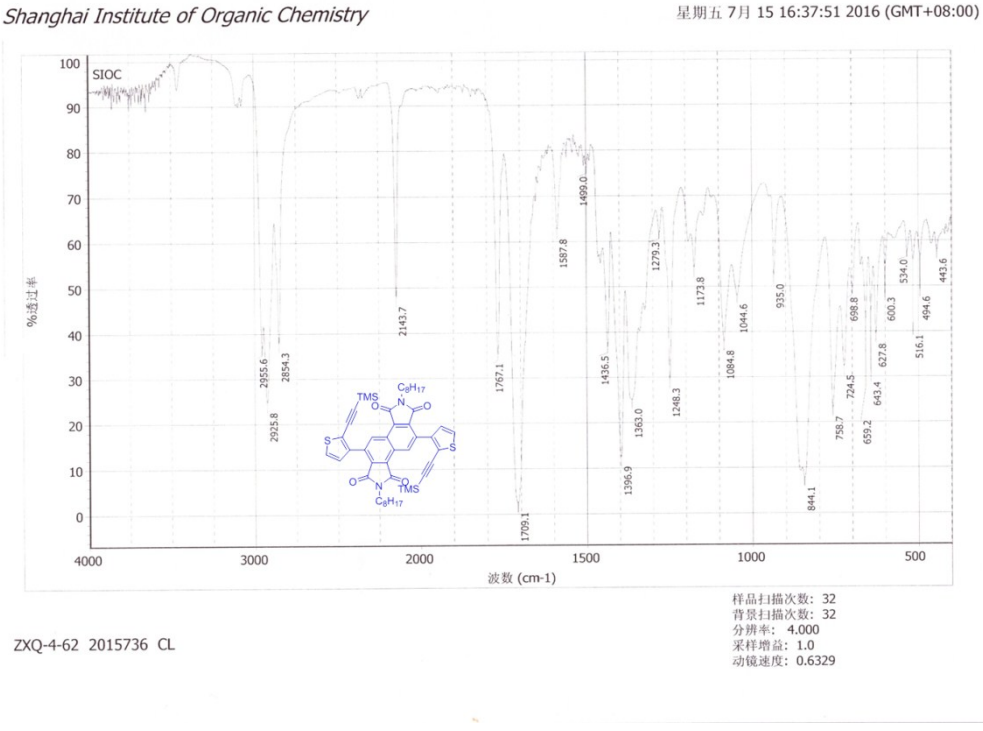
Operation Mode: MALDI-FT_DHB

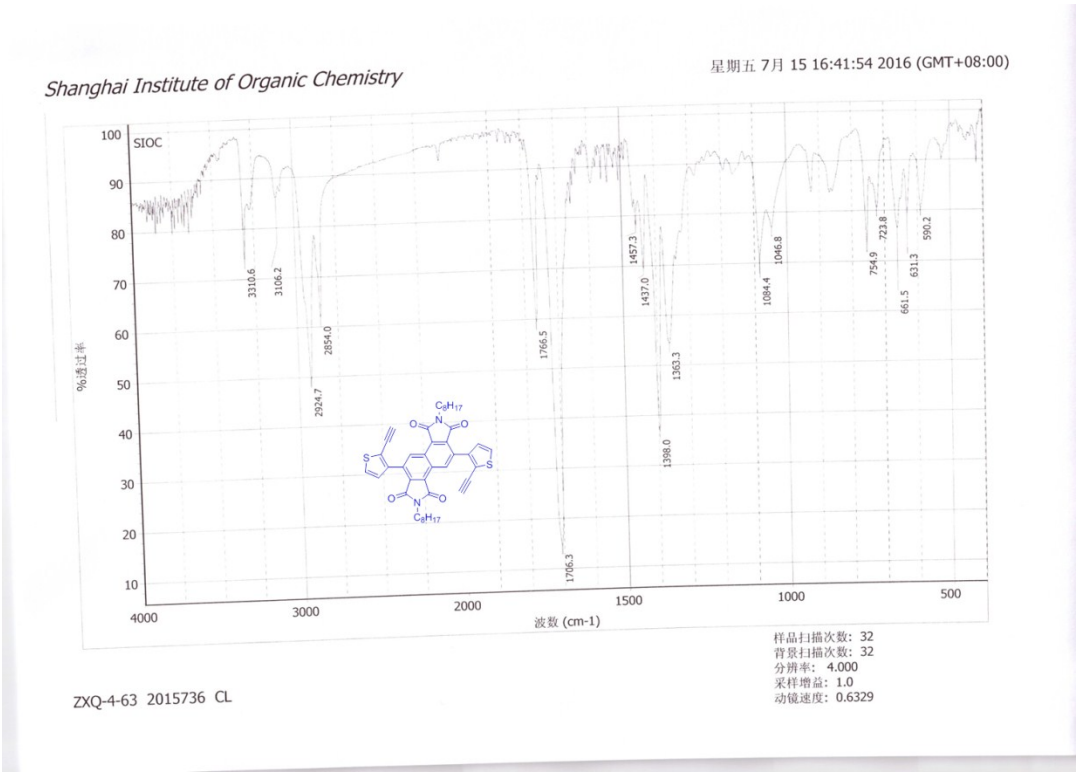
Elemental composition search on mass 802.24

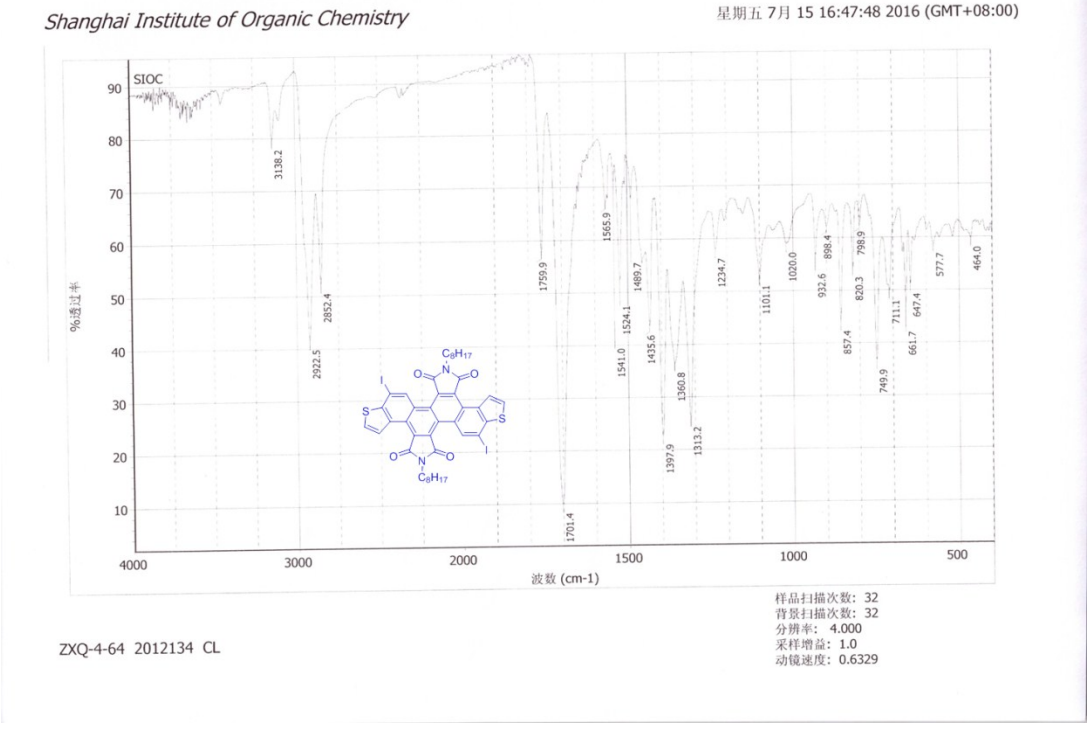
m/z= 797.24-807.24

m/z	Theo. Mass	Delta (ppm)	RDB equiv.	Composition
802.2393	802.2390	0.32	31.0	$C_{46}H_{38}O_4N_6S_2$
	802.2404	-1.36	30.5	$C_{48}H_{40}O_5N_3S_2$
	802.2417	-3.02	35.5	$C_{49}H_{36}ON_7S_2$
	802.2357	4.52	36.0	$C_{49}H_{34}O_4N_6S$


Shanghai Institute of Organic Chemistry
星期二 1月 20 18:23:55 2015 (GMT+08:00)
ZXQ-2-86 2014509 CL
SIOC
%透过率
波数 (cm-1)
3853.4
2923.2
2852.1
1761.1
1734.1
1704.4
1633.7
1465.2
1436.8
1400.4
1362.9
1320.5
1260.5
1180.5
1160.5
1142.3
1024.7
847.7
834.1
804.6
774.7
751.1
711.4
样品扫描次数: 32
背景扫描次数: 32
分辨率: 4.000
采样增益: 1.0
动镜速度: 0.6329
ZXQ-2-86 2014509 CL

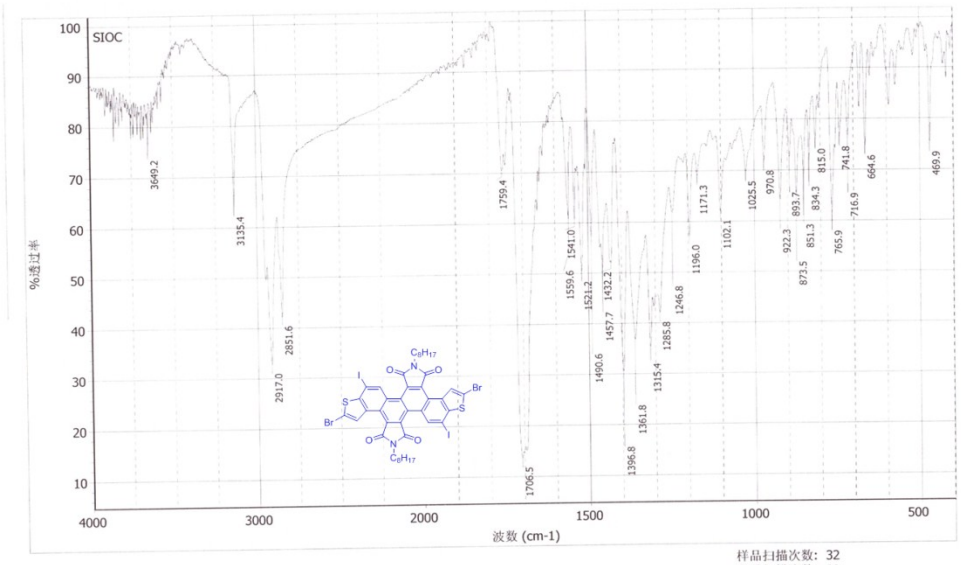

Shanghai Institute of Organic Chemistry
星期五 7月 15 16:37:51 2016 (GMT+08:00)
SIOC
%透过率
波数 (cm-1)
2955.6
2925.8
2854.3
2143.7
1767.1
1709.1
1587.8
1499.0
1436.5
1396.9
1363.0
1279.3
1248.3
1173.8
1084.8
1044.6
935.0
844.1
758.7
724.5
698.8
659.2
643.4
627.8
600.3
534.0
516.1
494.6
443.6
样品扫描次数: 32
背景扫描次数: 32
分辨率: 4.000
采样增益: 1.0
动镜速度: 0.6329
ZXQ-4-62 2015736 CL


Shanghai Institute of Organic Chemistry
星期五 7月 15 16:41:54 2016 (GMT+08:00)
SIOC
%透过率
波数 (cm-1)
3310.6
3106.2
2924.7
2854.0
1766.5
1706.3
1457.3
1437.0
1398.0
1363.3
1084.4
1046.8
754.9
723.8
661.5
631.3
590.2
样品扫描次数: 32
背景扫描次数: 32
分辨率: 4.000
采样增益: 1.0
动镜速度: 0.6329
ZXQ-4-63 2015736 CL


Shanghai Institute of Organic Chemistry
星期五 7月 15 16:47:48 2016 (GMT+08:00)
SIOC
%透过率
波数 (cm-1)
3138.2
2922.5
2852.4
1759.9
1701.4
1565.9
1541.0
1524.1
1489.7
1435.6
1397.9
1360.8
1313.2
1234.7
1101.1
1020.0
932.6
898.4
857.4
820.3
798.9
749.9
711.1
661.7
647.4
577.7
464.0
样品扫描次数: 32
背景扫描次数: 32
分辨率: 4.000
采样增益: 1.0
动镜速度: 0.6329
ZXQ-4-64 2012134 CL

Shanghai Institute of Organic Chemistry

星期五 7月 15 16:51:40 2016 (GMT+08:00)

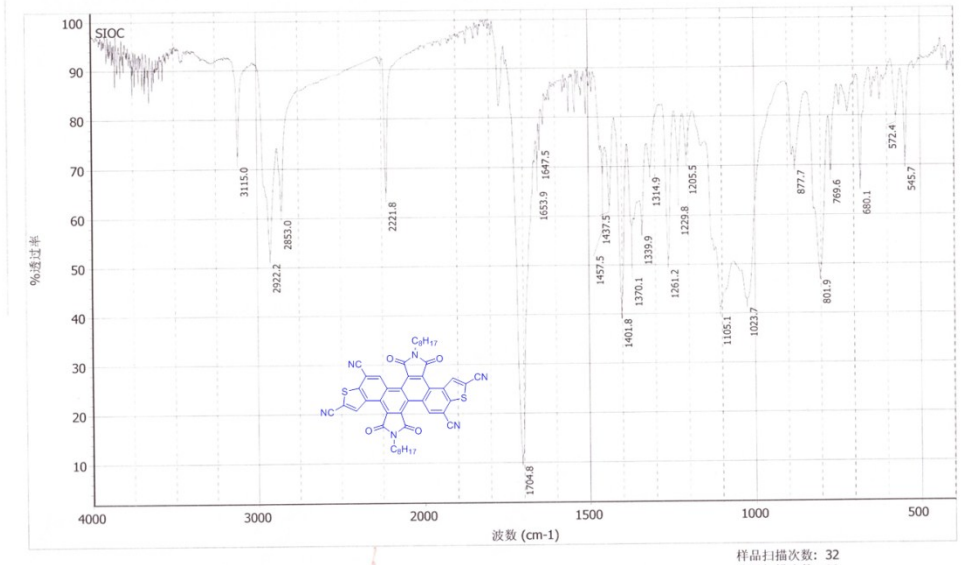


ZXQ-4-65 2012134 CL

样品扫描次数: 32
背景扫描次数: 32
分辨率: 4.000
采样增益: 1.0
动镜速度: 0.6329

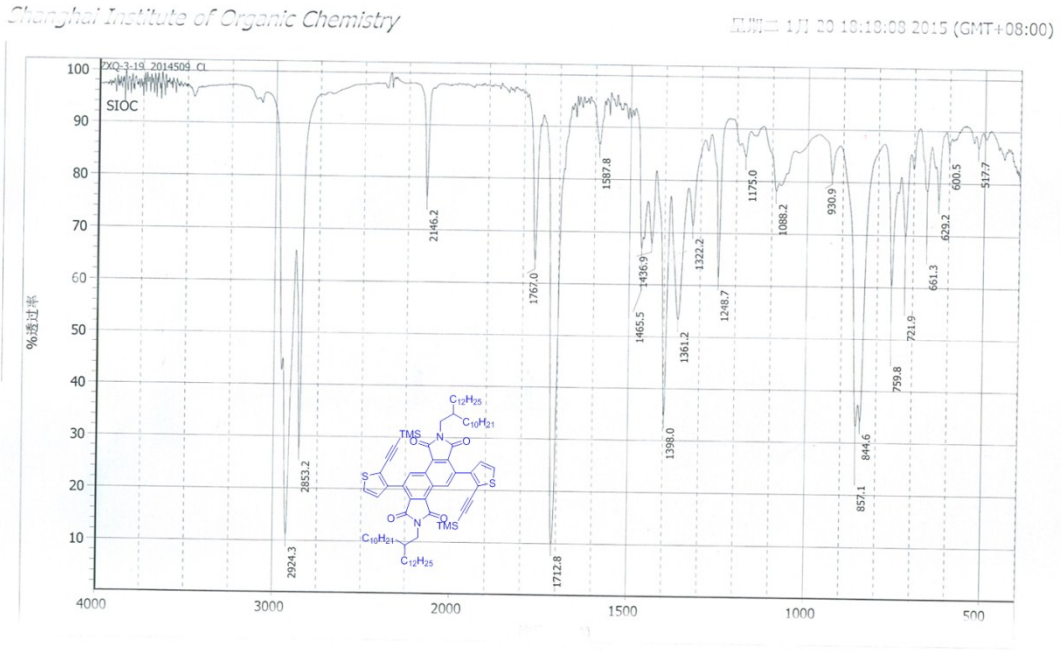
Shanghai Institute of Organic Chemistry

星期五 7月 15 16:52:59 2016 (GMT+08:00)



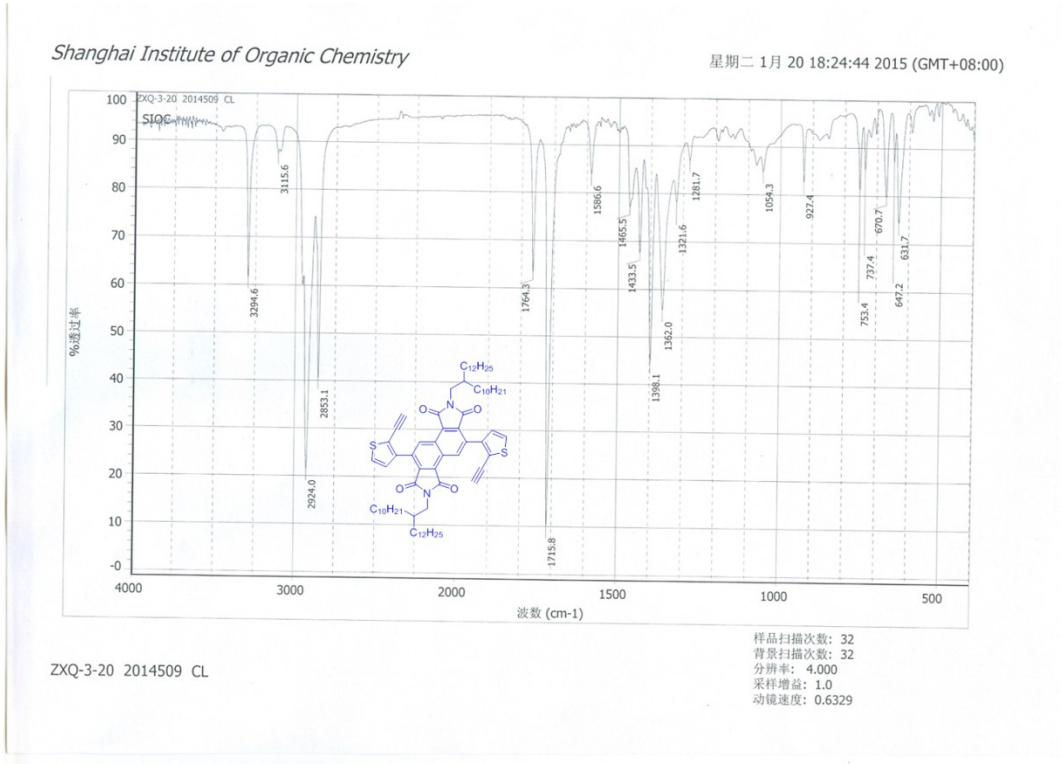
ZXQ-4-66 2012134 YS

样品扫描次数: 32
背景扫描次数: 32
分辨率: 4.000
采样增益: 1.0
动镜速度: 0.6329



ZXQ-3-19 2014509 CL

背景扫描次数: 32
分辨率: 4.000
采样增益: 1.0
动镜速度: 0.6329

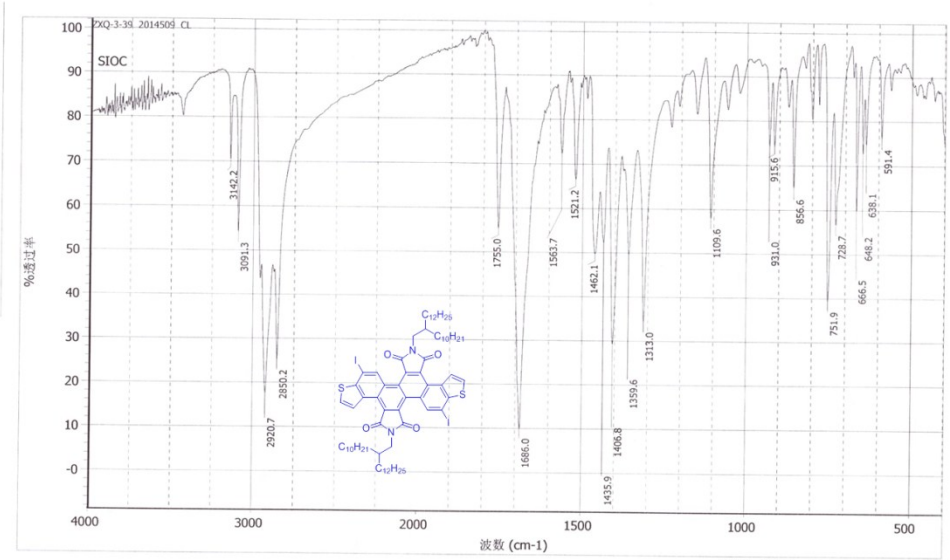


ZXQ-3-20 2014509 CL

样品扫描次数: 32
背景扫描次数: 32
分辨率: 4.000
采样增益: 1.0
动镜速度: 0.6329

Shanghai Institute of Organic Chemistry

星期五 9月 18 15:19:05 2015 (GMT+08:00)

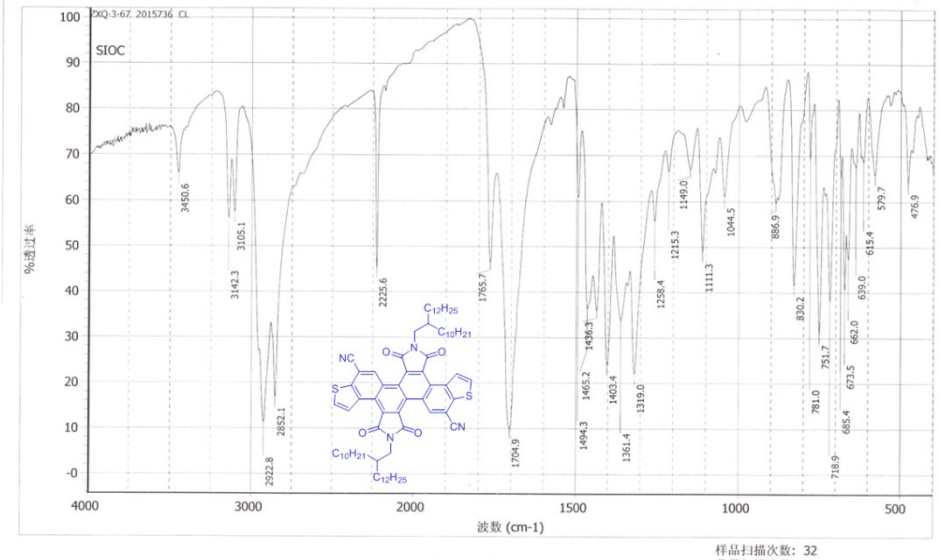


ZXQ-3-39 2014509 CL

样品扫描次数：32
背景扫描次数：32
分辨率： 4.000
采样增益：1.0
动镜速度：0.6329

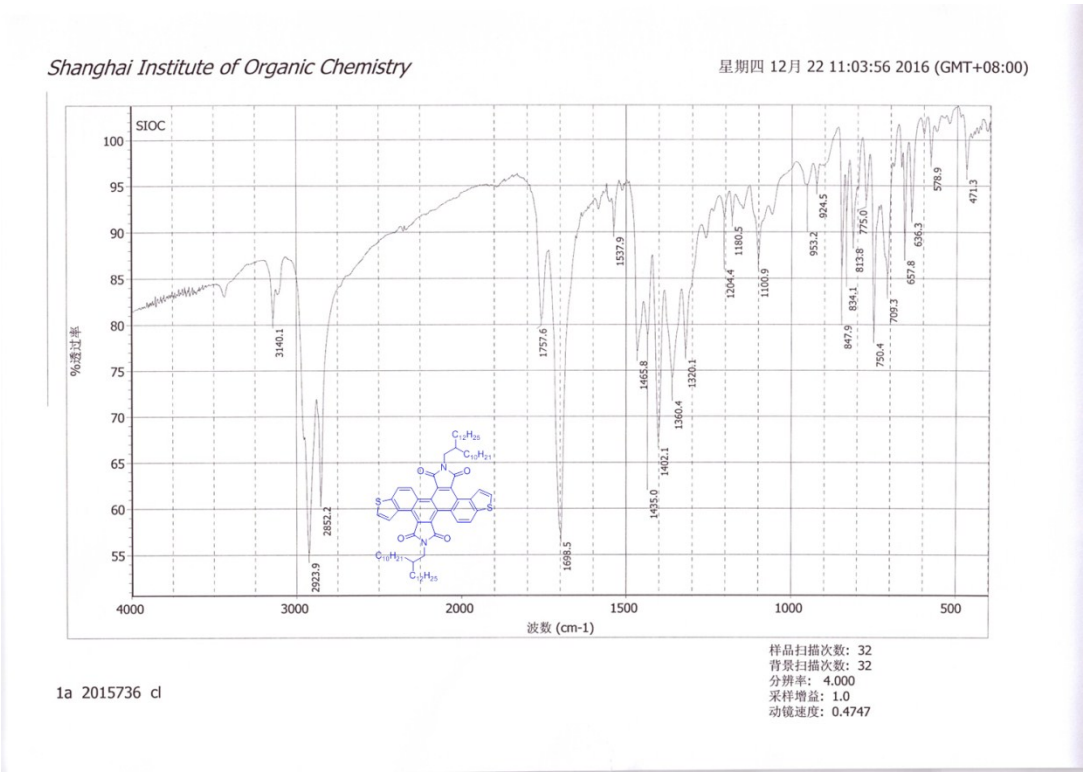
Shanghai Institute of Organic Chemistry

星期五 9月 18 15:20:45 2015 (GMT+08:00)



ZXQ-3-67 2015736 CL

样品扫描次数：32
背景扫描次数：32
分辨率： 4.000
采样增益：1.0
动镜速度：0.6329


Shanghai Institute of Organic Chemistry
星期四 12月 22 11:03:56 2016 (GMT+08:00)
SIOC
%透过率
波数 (cm-1)
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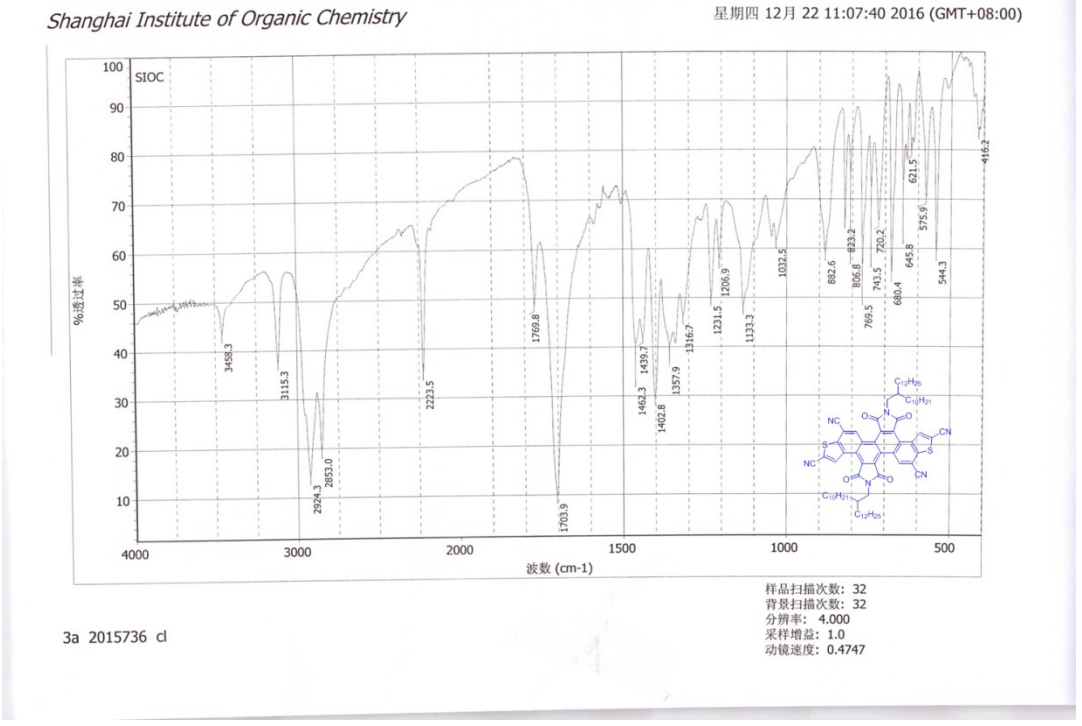
2923.9
2852.2
1757.6
1698.5
1537.9
1465.8
1435.0
1402.1
1360.4
1320.1
1204.4
1180.5
1100.9
953.2
924.5
847.9
834.1
813.8
775.0
750.4
709.3
657.8
636.3
578.9
471.3
样品扫描次数: 32
背景扫描次数: 32
分辨率: 4.000
采样增益: 1.0
动镜速度: 0.4747
1a 2015736 cl


Shanghai Institute of Organic Chemistry
星期四 12月 22 11:07:40 2016 (GMT+08:00)
SIOC
%透过率
波数 (cm-1)
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2924.3
2853.0
2223.5
1769.8
1703.9
1462.3
1439.7
1402.8
1357.9
1316.7
1231.5
1206.9
1133.3
1032.5
882.6
823.2
806.8
769.5
743.5
720.2
680.4
645.8
621.5
575.9
544.3
416.2
样品扫描次数: 32
背景扫描次数: 32
分辨率: 4.000
采样增益: 1.0
动镜速度: 0.4747
3a 2015736 cl