

Supporting Information

Microwave-assisted regioselective sulfenylation of indoles under solvent- and metal-free conditions

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Department of Chemistry, National Institute of Technology Silchar, Silchar 788010, India

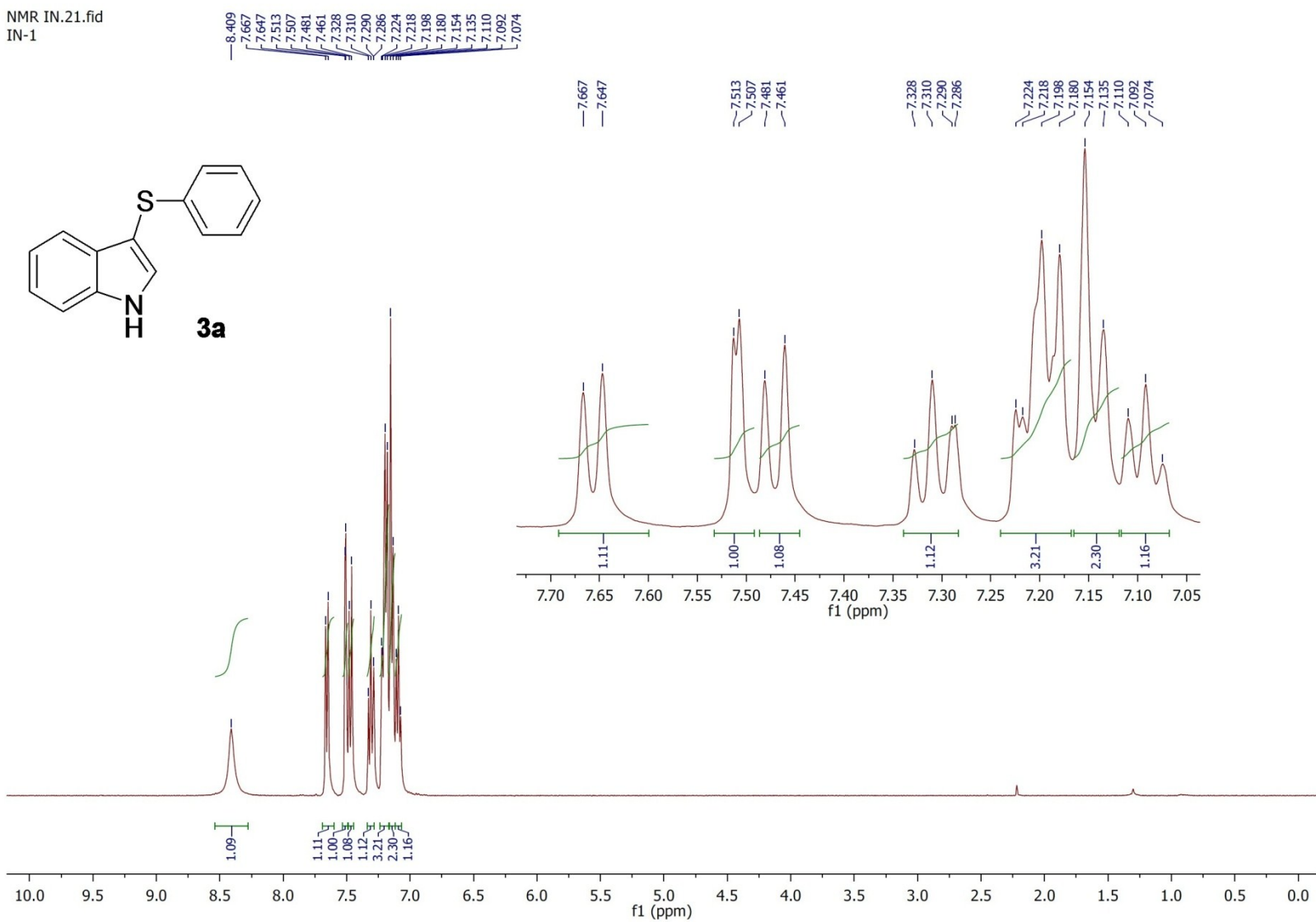
*Email: barmanpranjit@yahoo.co.in

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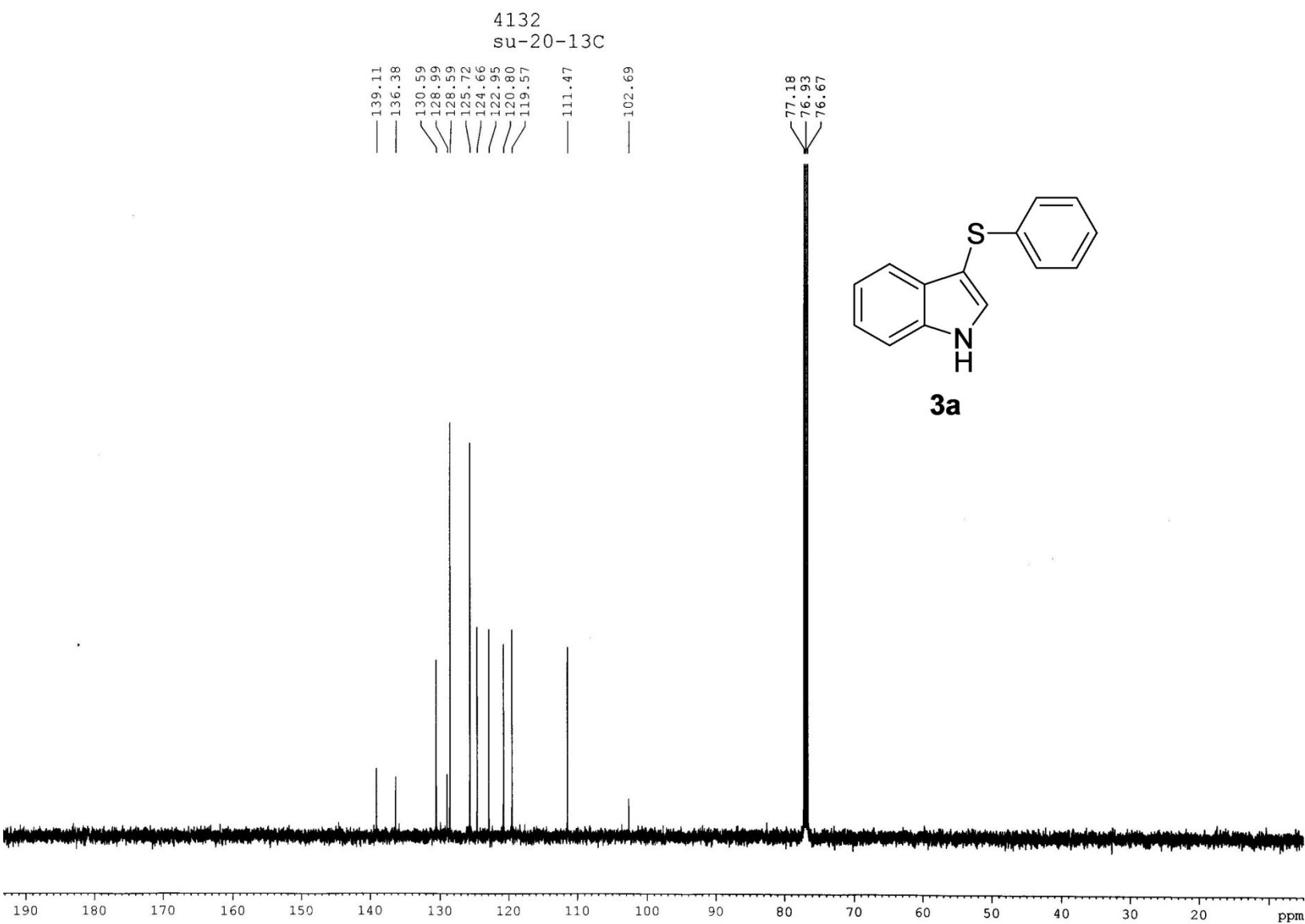
^1H and ^{13}C NMR spectra for all compounds		S-2
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^1H and ^{13}C NMR spectra of the synthesized compounds

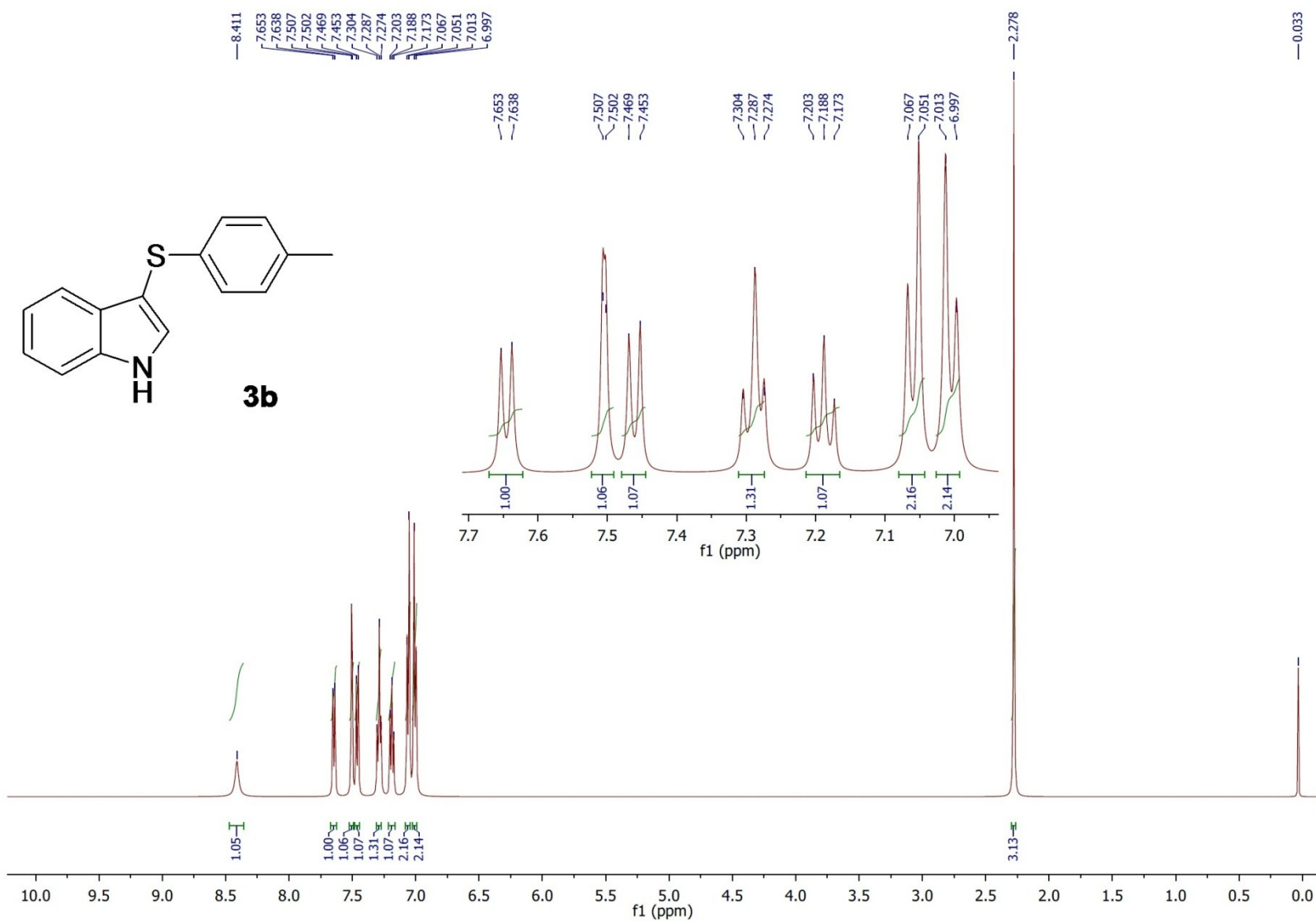
^1H NMR of compound **3a** (CDCl_3 , 400 MHz)



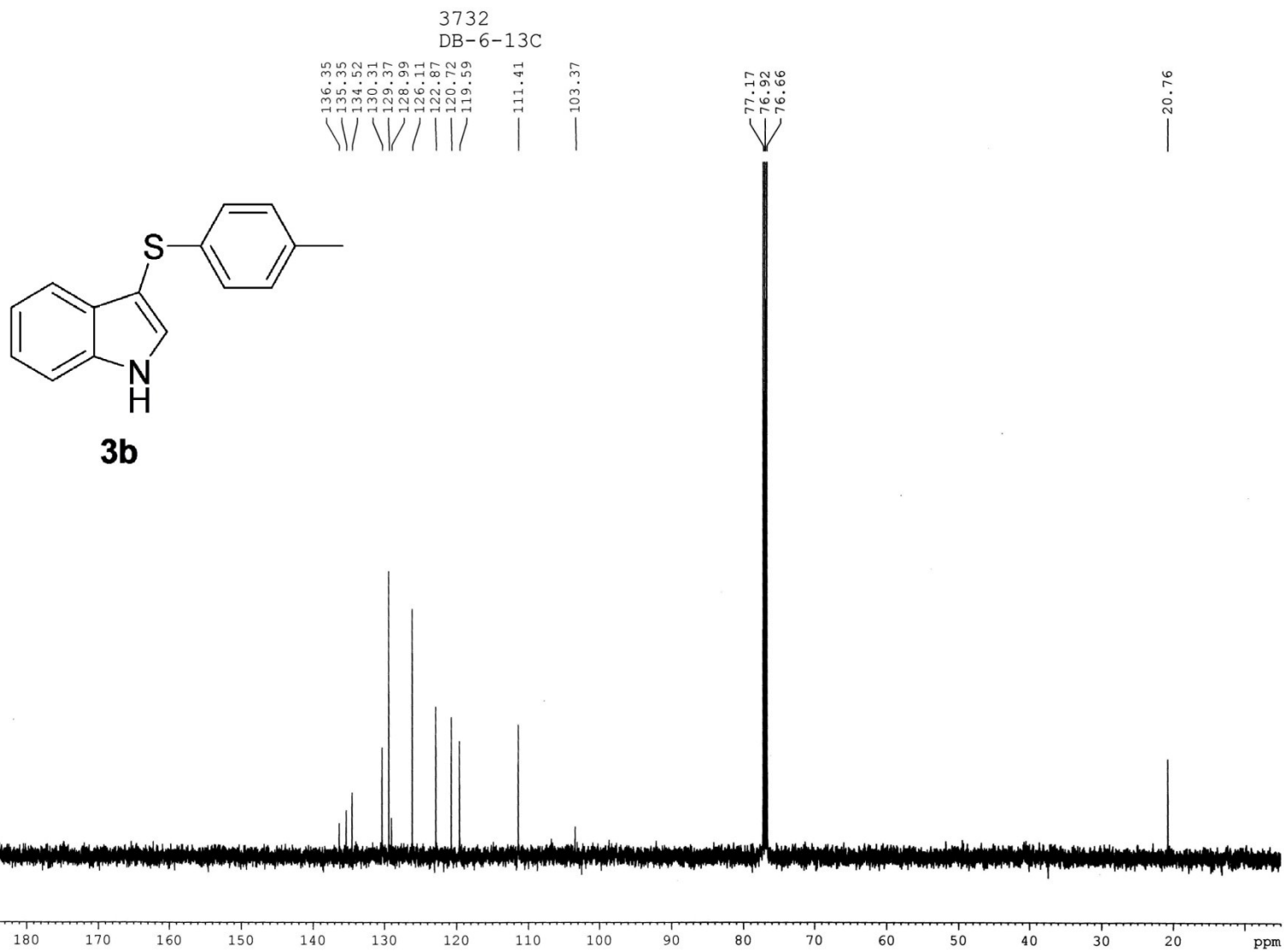
^{13}C NMR of compound **3a** (CDCl_3 , 125 MHz)



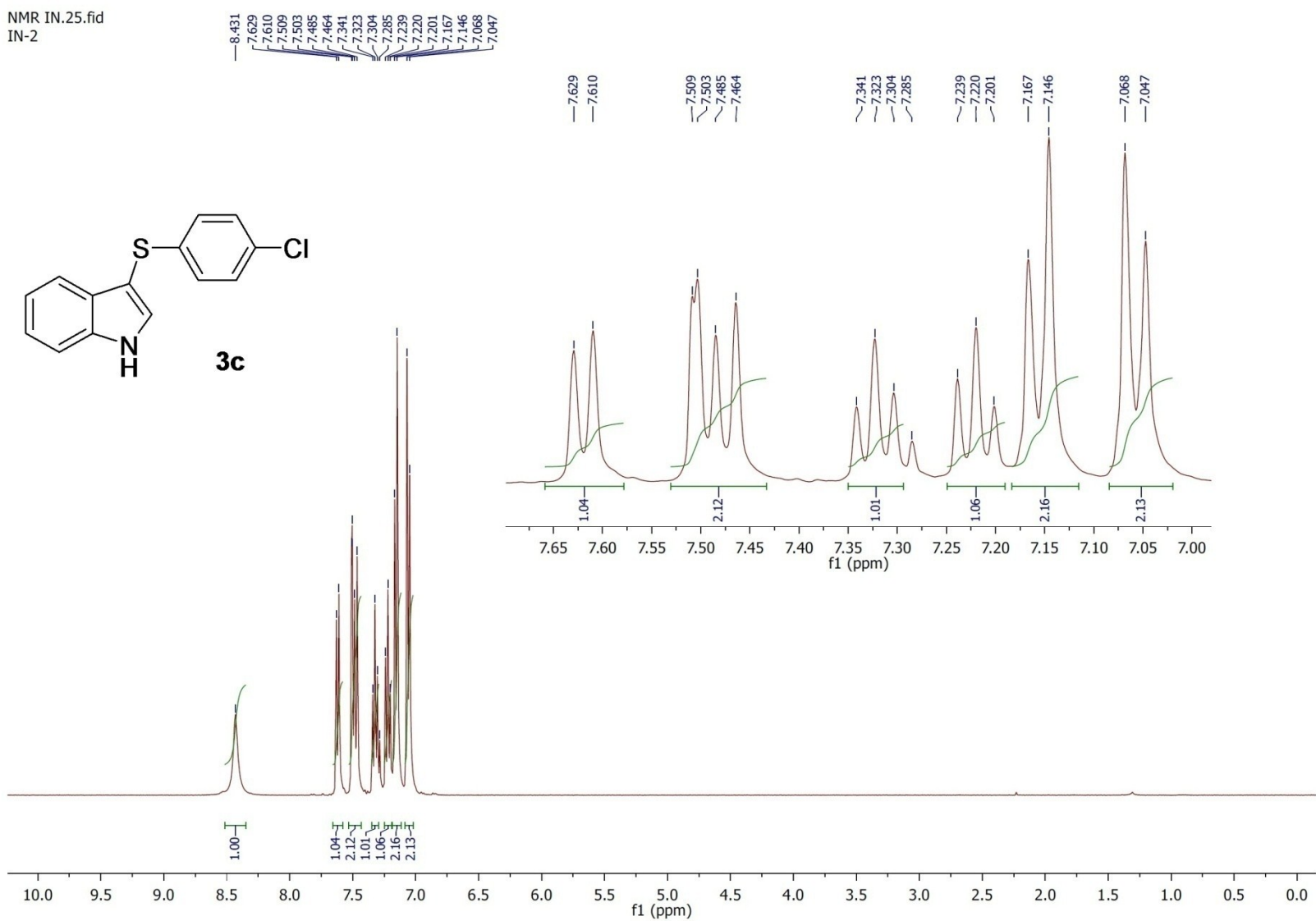
^1H NMR of compound **3b** (CDCl_3 , 400 MHz)



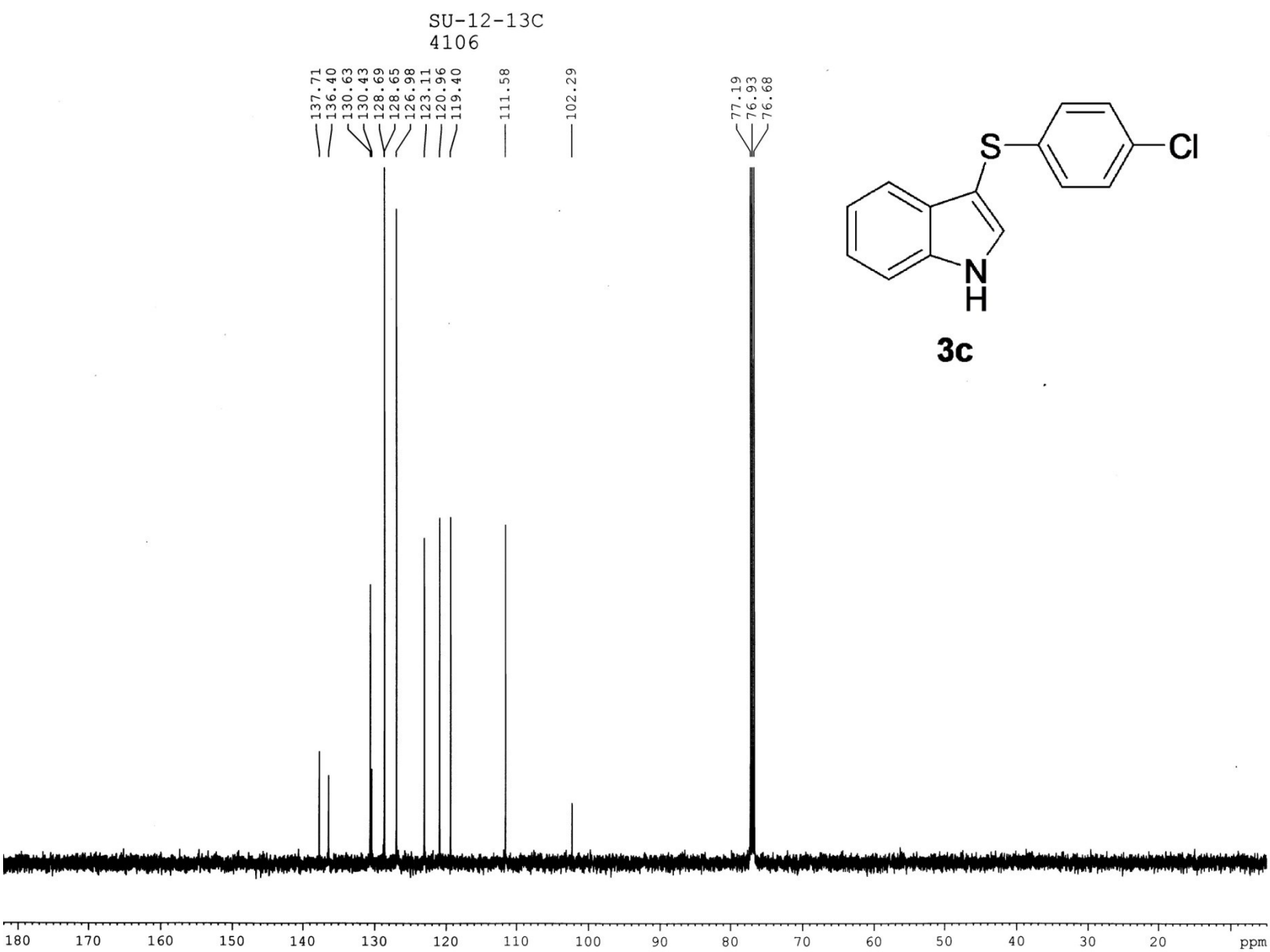
^{13}C NMR of compound **3b** (CDCl_3 , 125 MHz)



¹H NMR of compound **3c** (CDCl₃, 400 MHz)

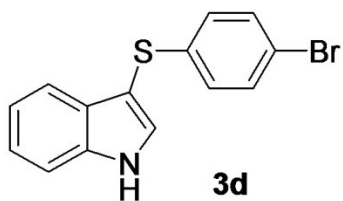


^{13}C NMR of compound **3c** (CDCl_3 , 125 MHz)



¹H NMR of compound **3d** (CDCl₃, 400 MHz)

NMR IN.30.fid
IN-3



8.462
7.614
7.595
7.514
7.509
7.488
7.467
7.335
7.317
7.301
7.281
7.230
7.211
7.193
6.998
6.977

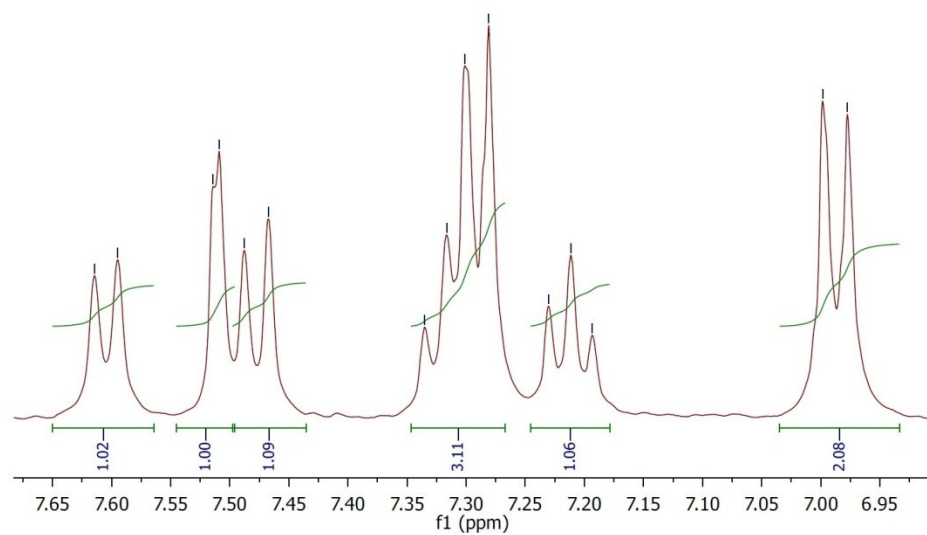
7.614
7.595

7.514
7.509
7.488
7.467

7.335
7.317
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7.281

7.230
7.211
7.193

6.998
6.977



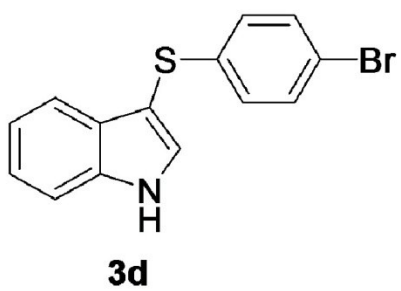
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1.00
1.09
3.11
1.06
2.08

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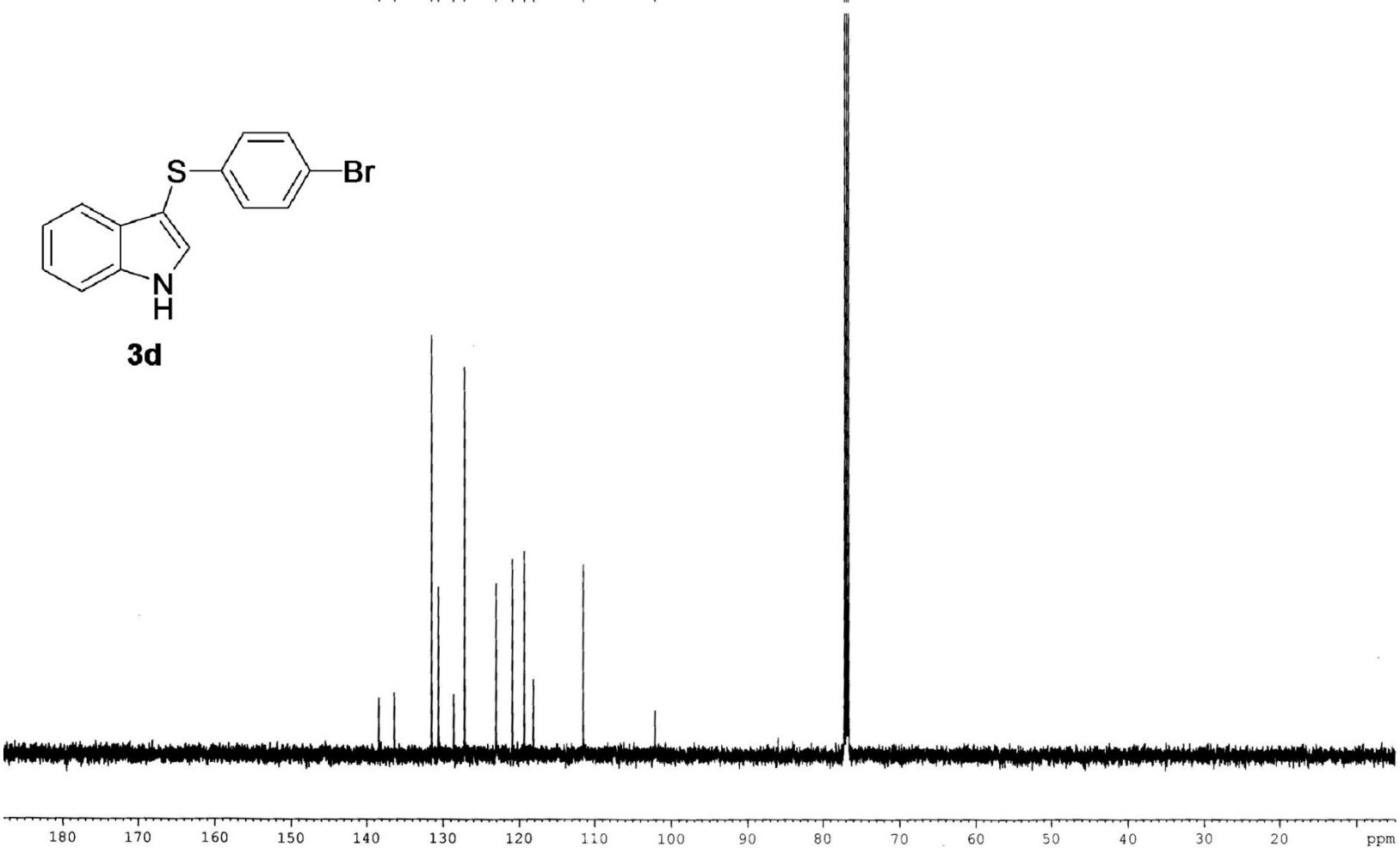
f1 (ppm)

^{13}C NMR of compound **3d** (CDCl_3 , 125 MHz)



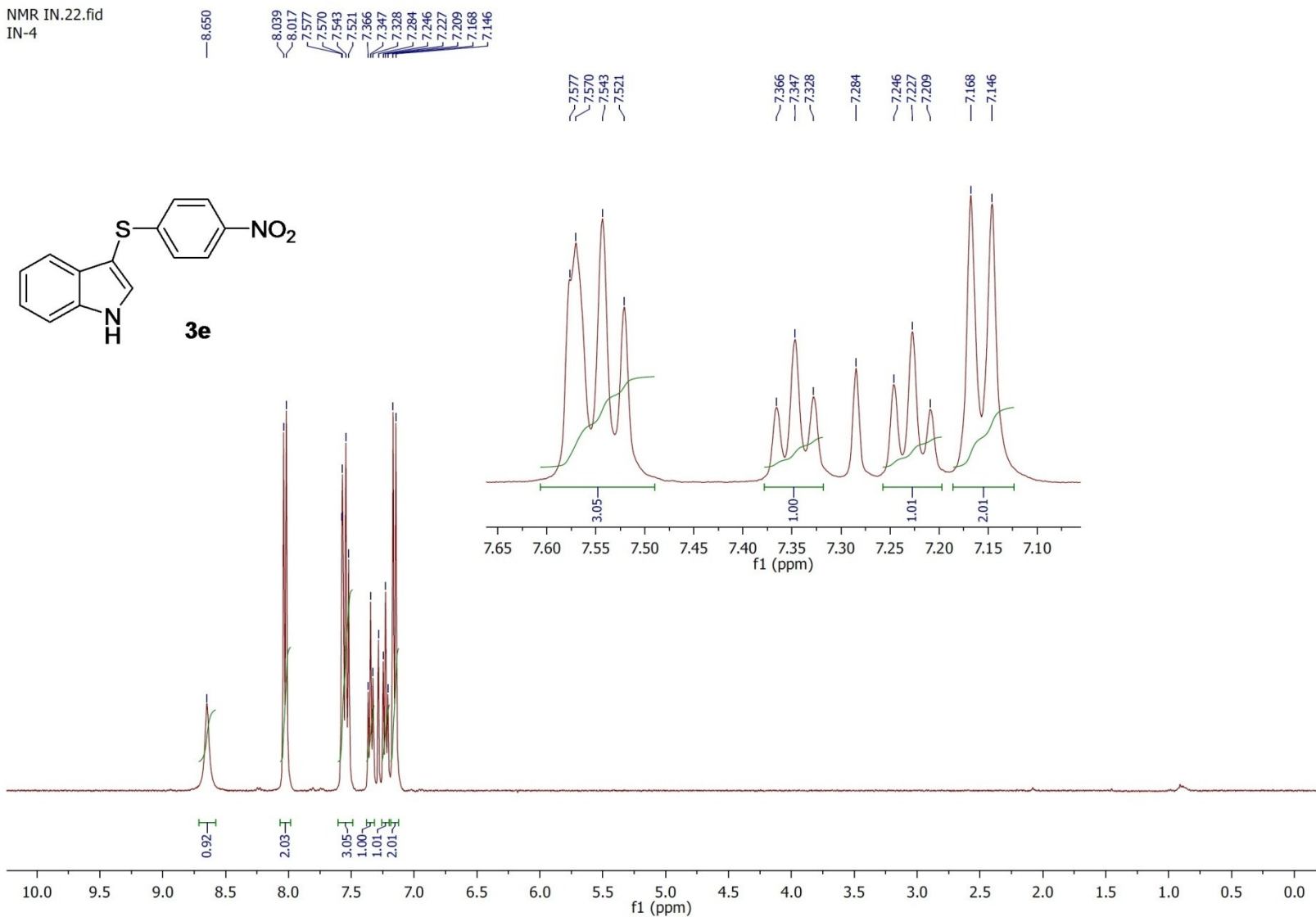
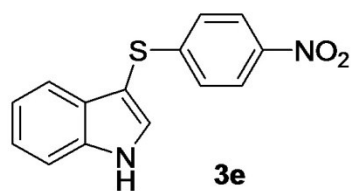
4056
IN-5

138.43
136.38
131.53
130.64
128.65
127.25
123.12
120.97
119.40
118.18
111.57
102.12
77.18
76.92
76.67

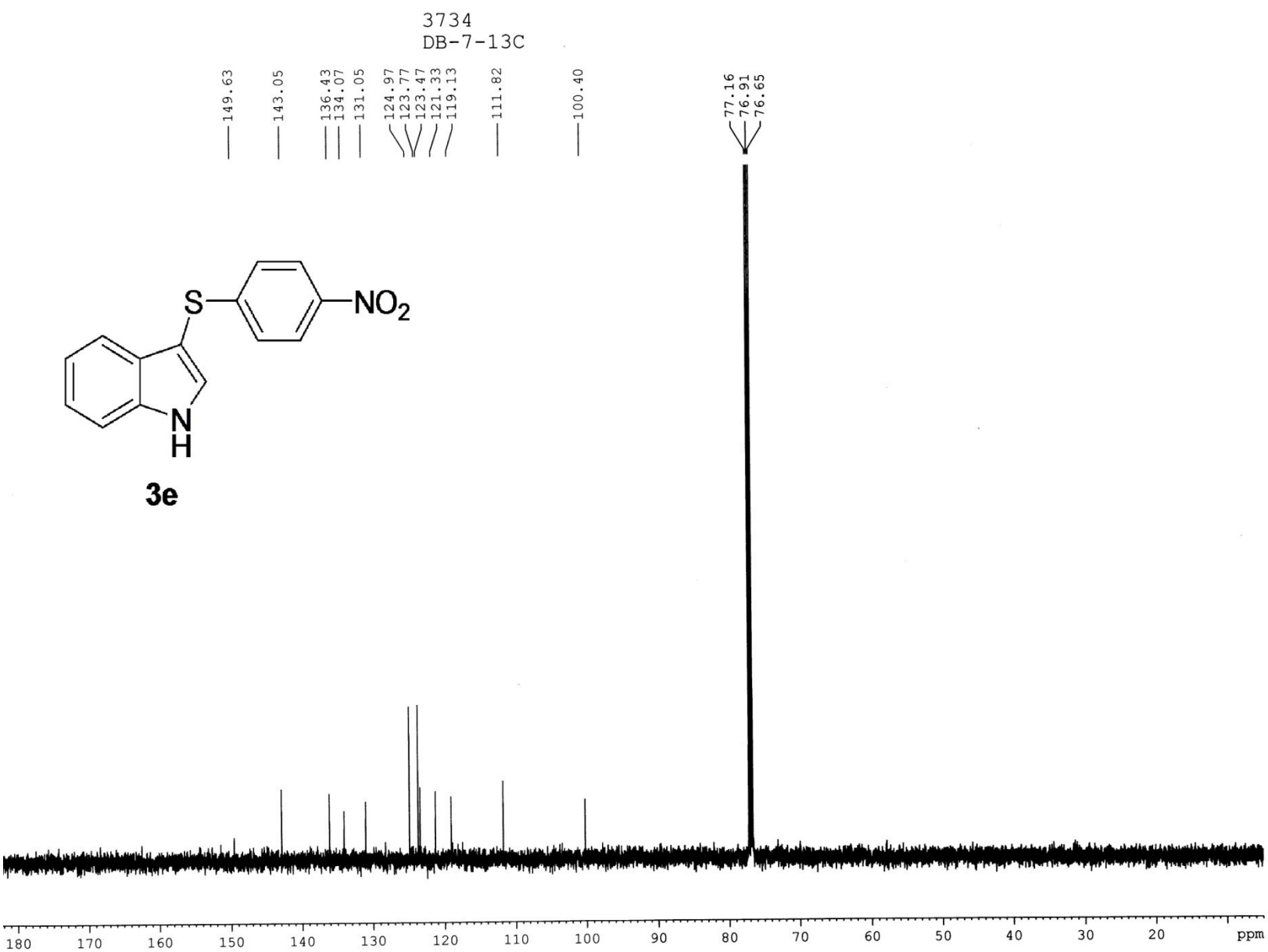


¹H NMR of compound **3e** (CDCl₃, 400 MHz)

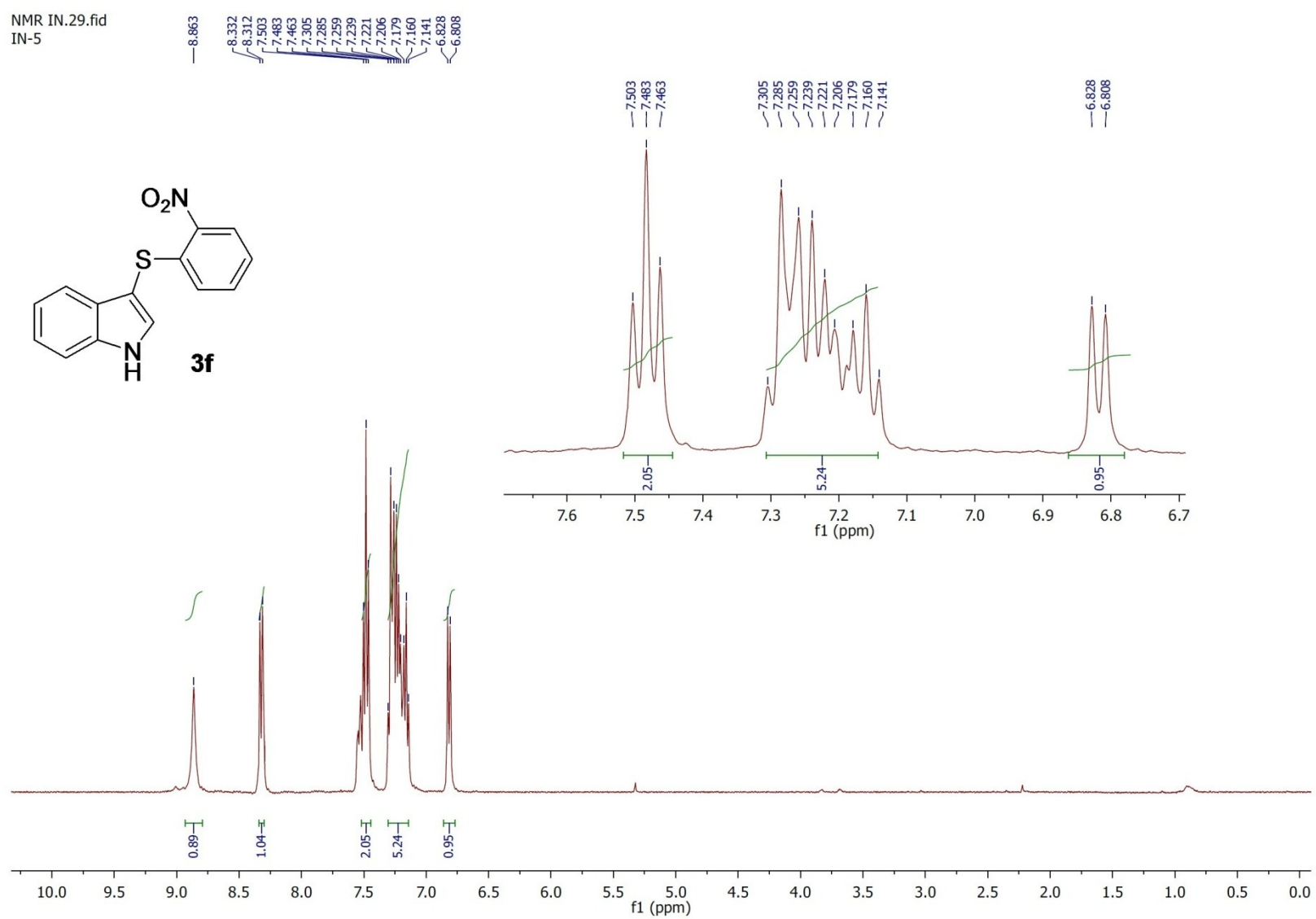
NMR IN.22.fid
IN-4



^{13}C NMR of compound **3e** (CDCl_3 , 125 MHz)

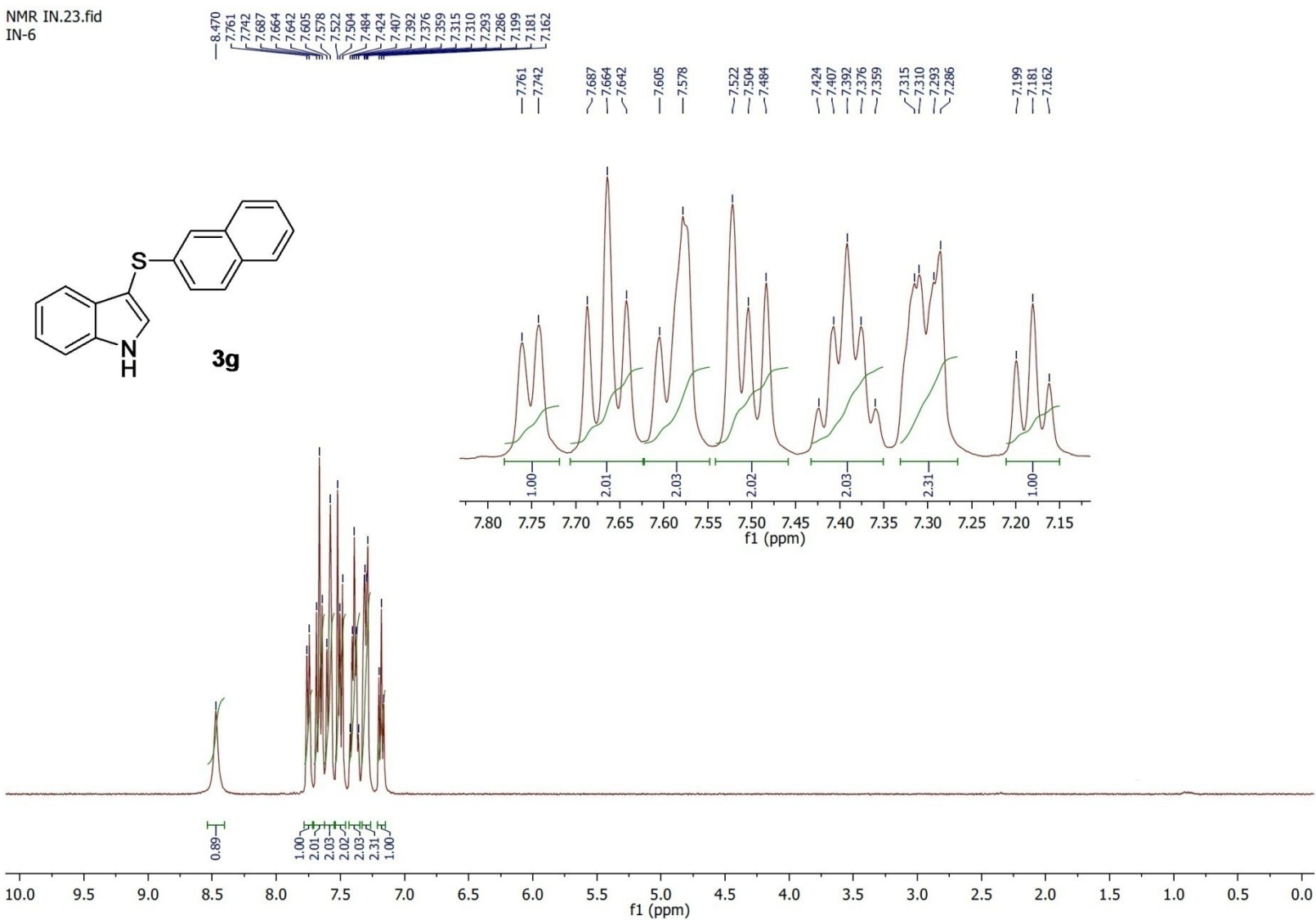
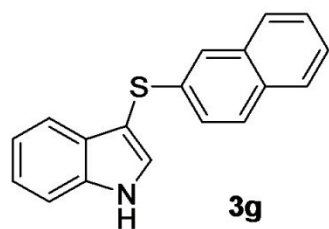


^1H NMR of compound **3f** (CDCl_3 , 400 MHz)

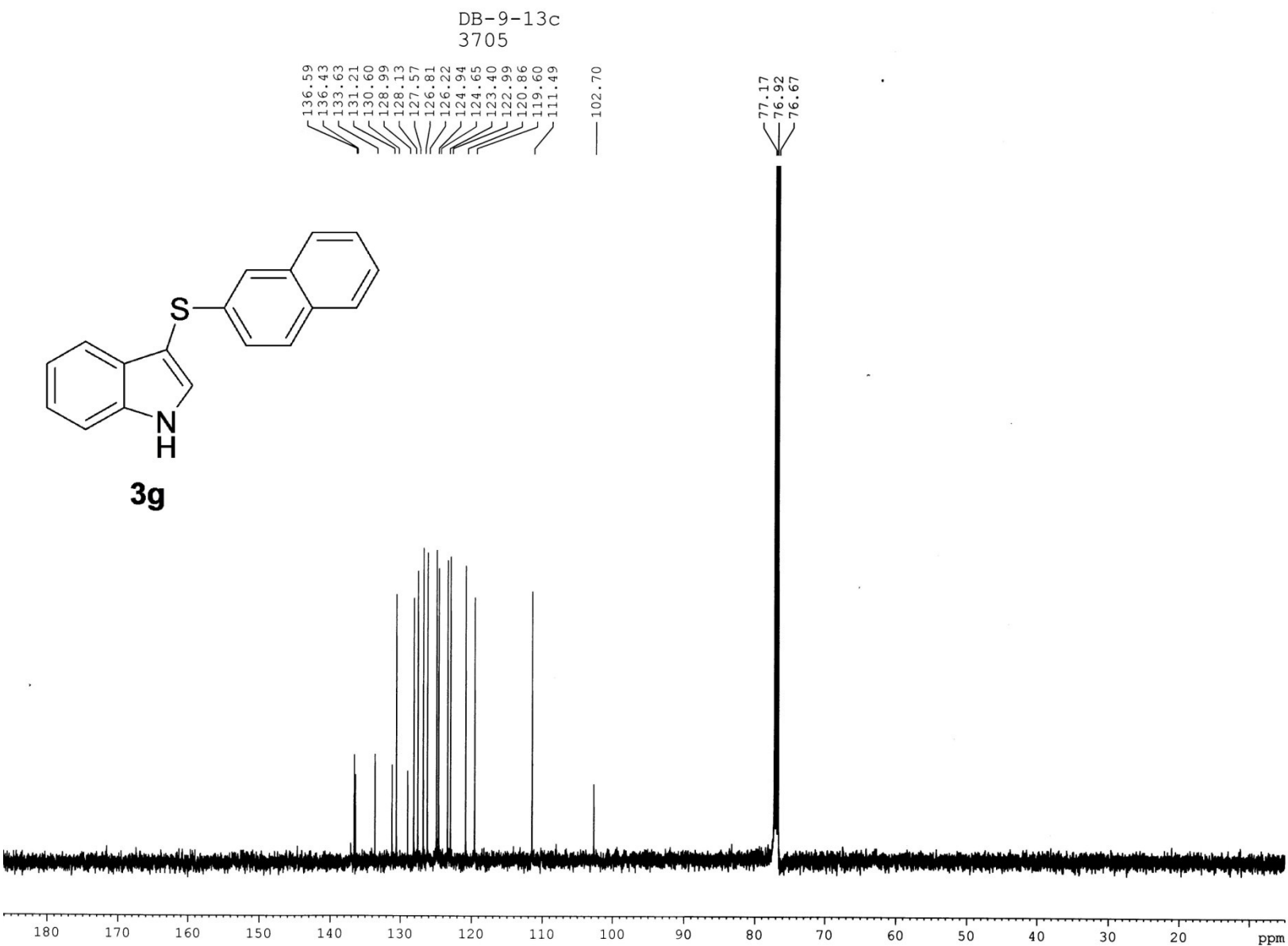


^1H NMR of compound **3g** (CDCl_3 , 400 MHz)

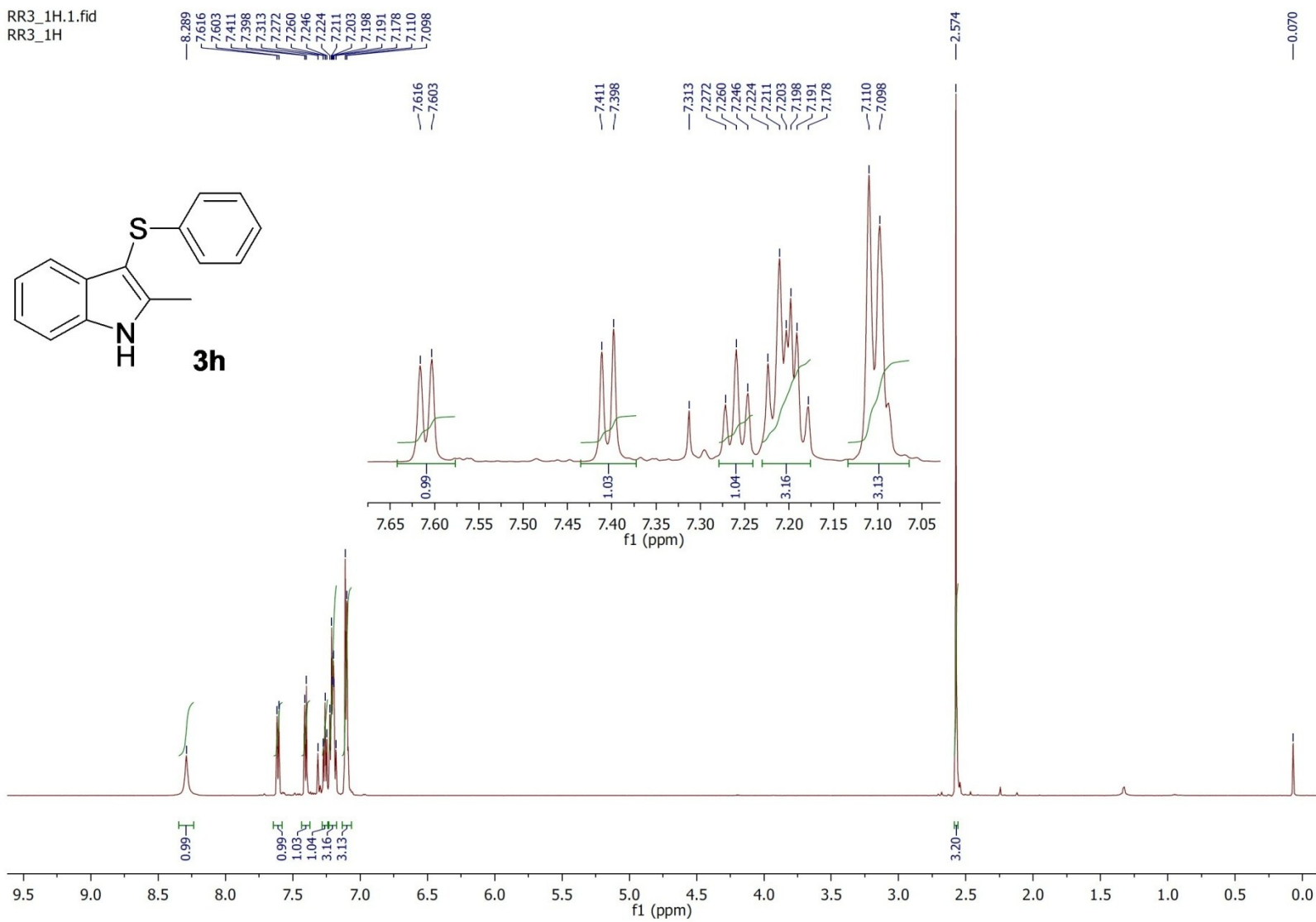
NMR IN.23.fid
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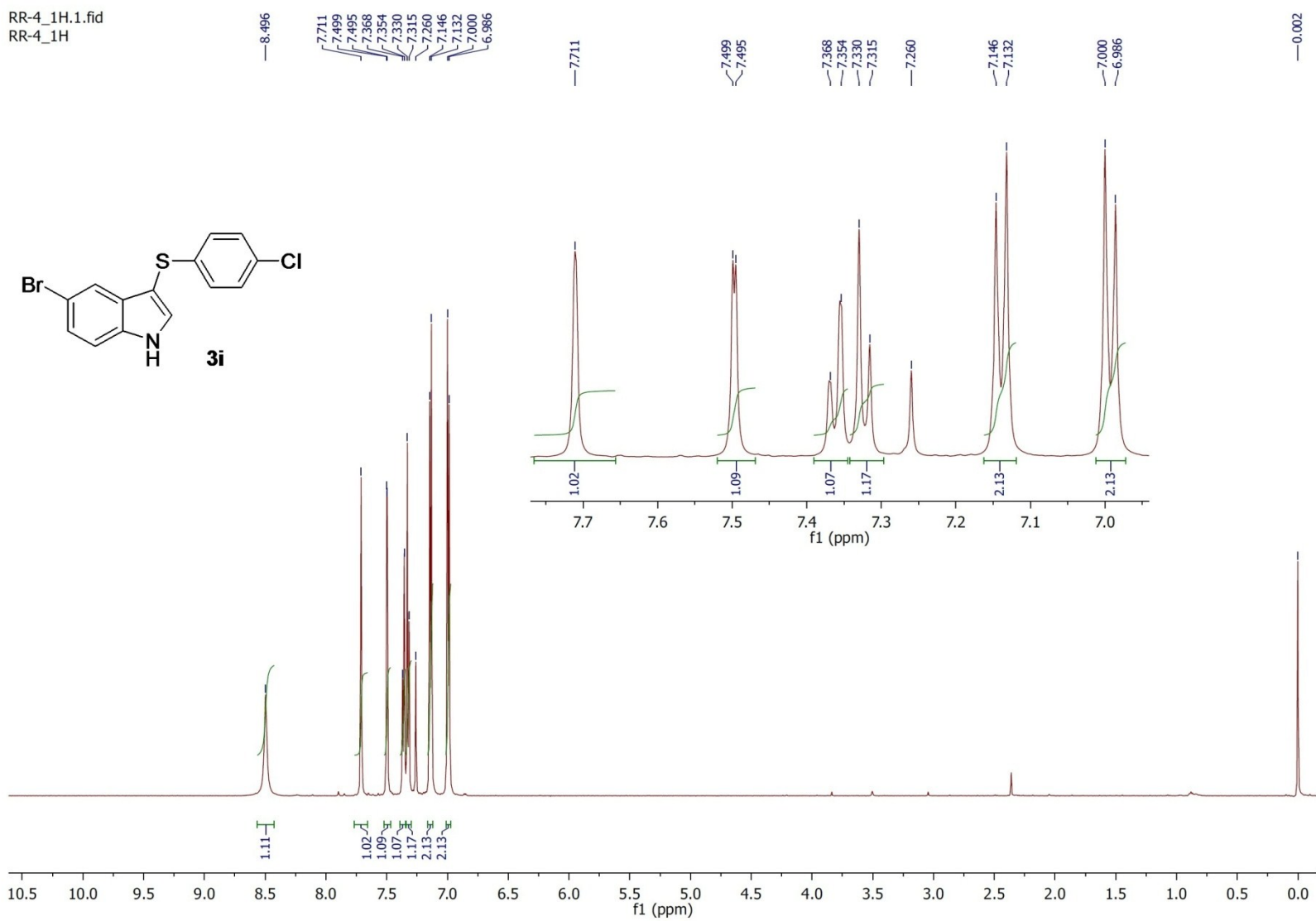
^{13}C NMR of compound **3g** (CDCl_3 , 125 MHz)



¹H NMR of compound **3h** (CDCl₃, 600 MHz)

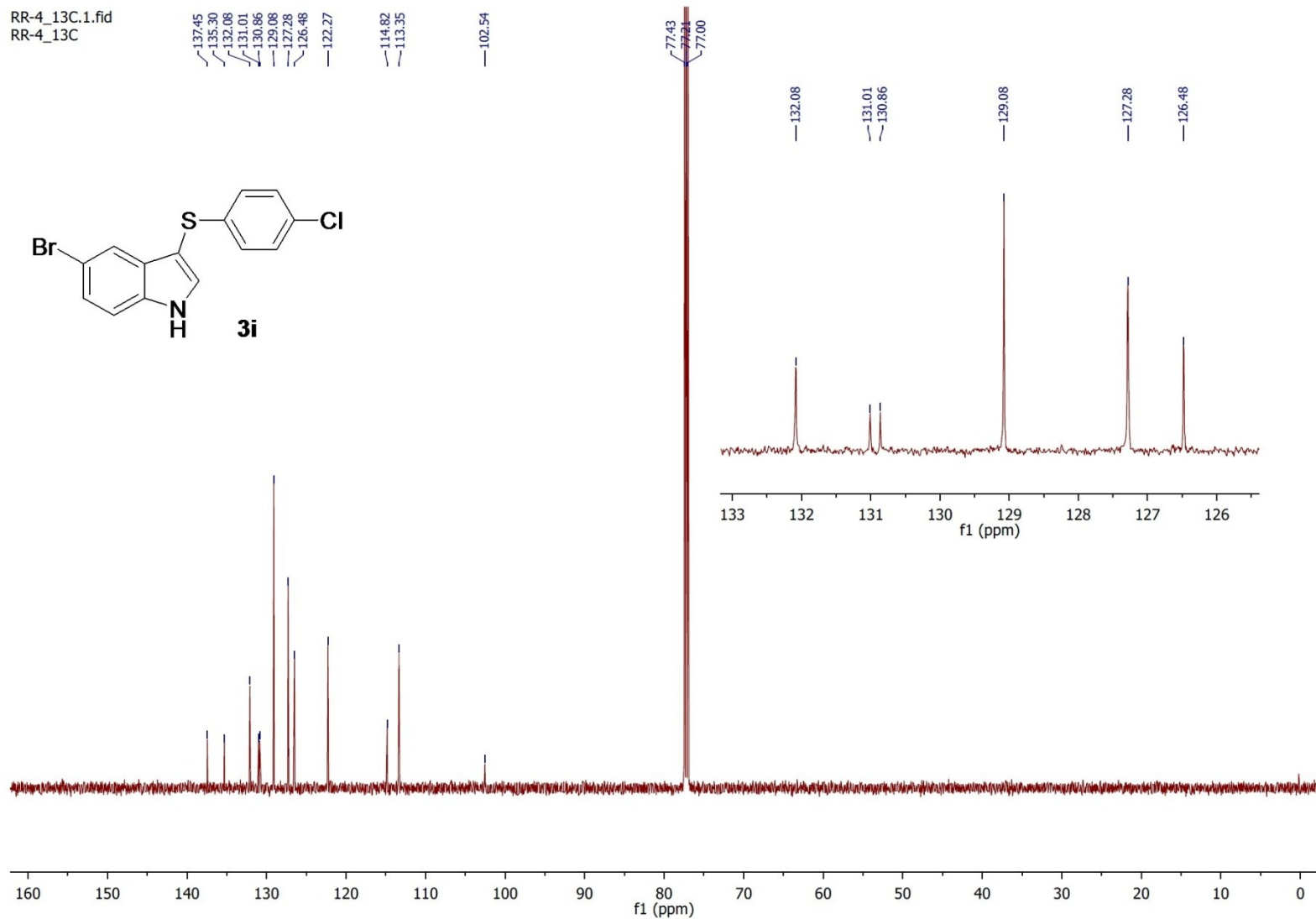
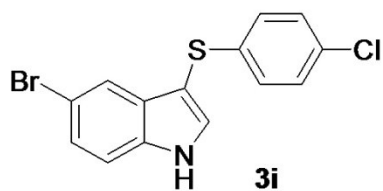


^1H NMR of compound **3i** (CDCl_3 , 600 MHz)

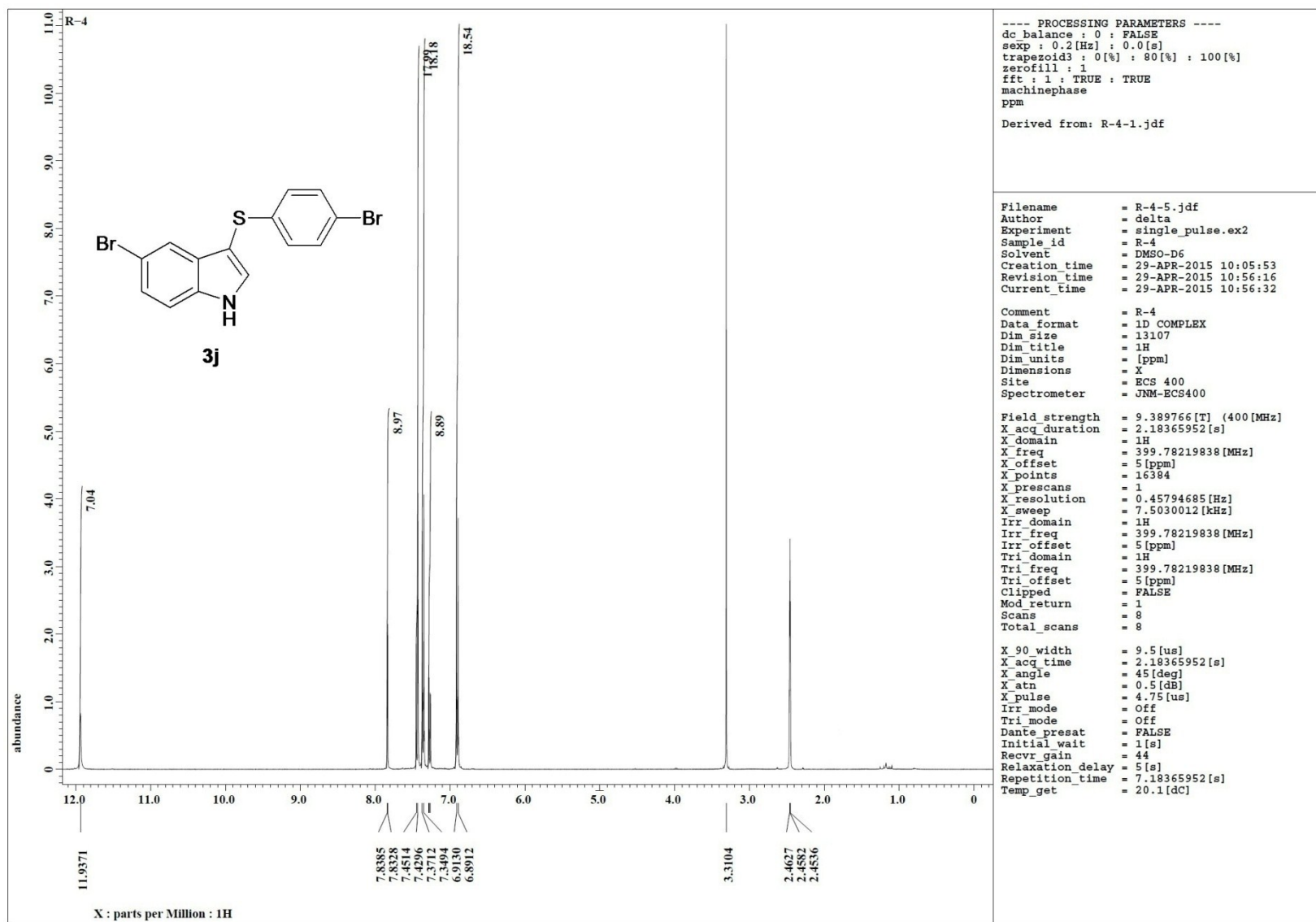


^{13}C NMR of compound **3i** (CDCl_3 , 150 MHz)

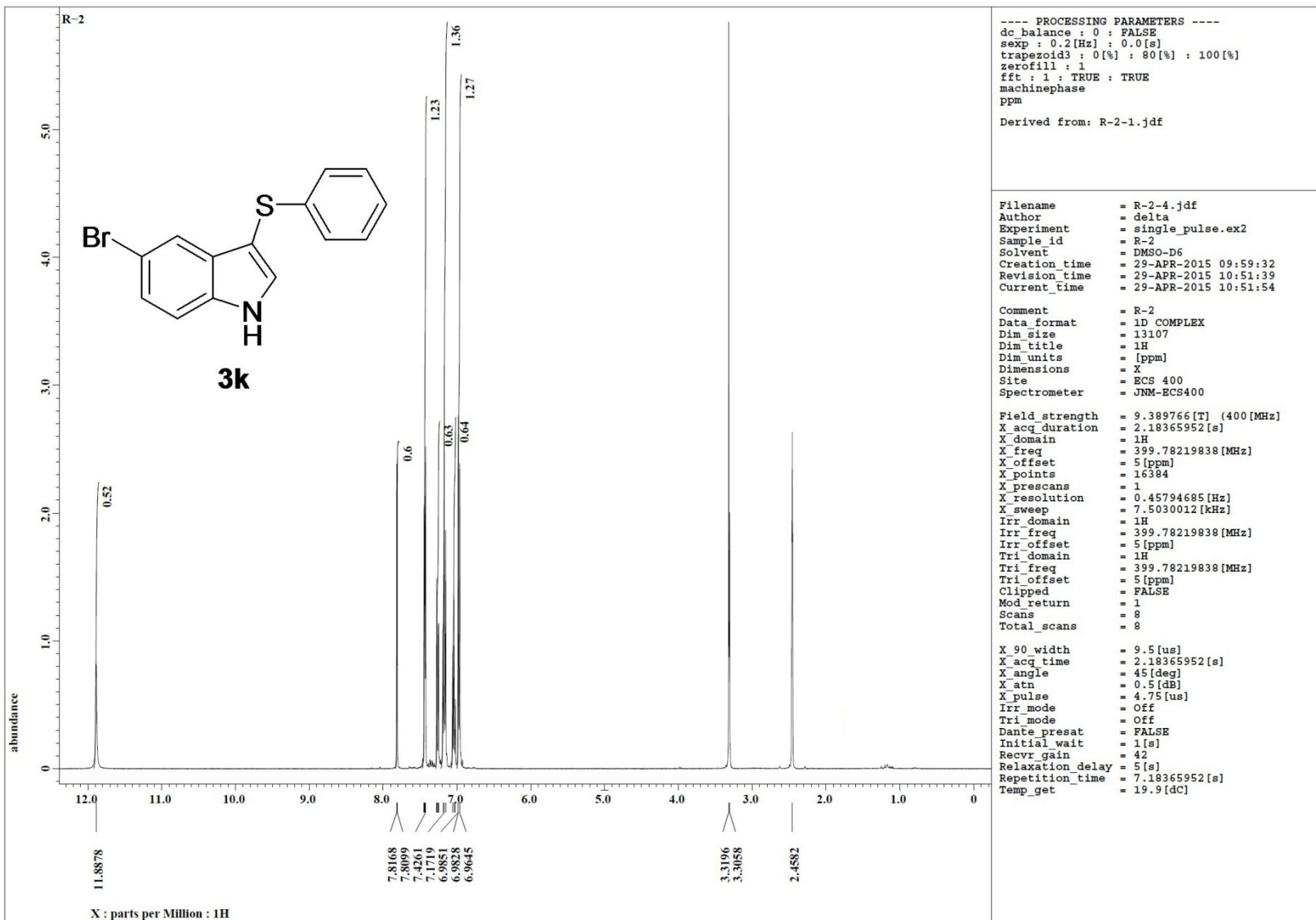
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RR-4_13C



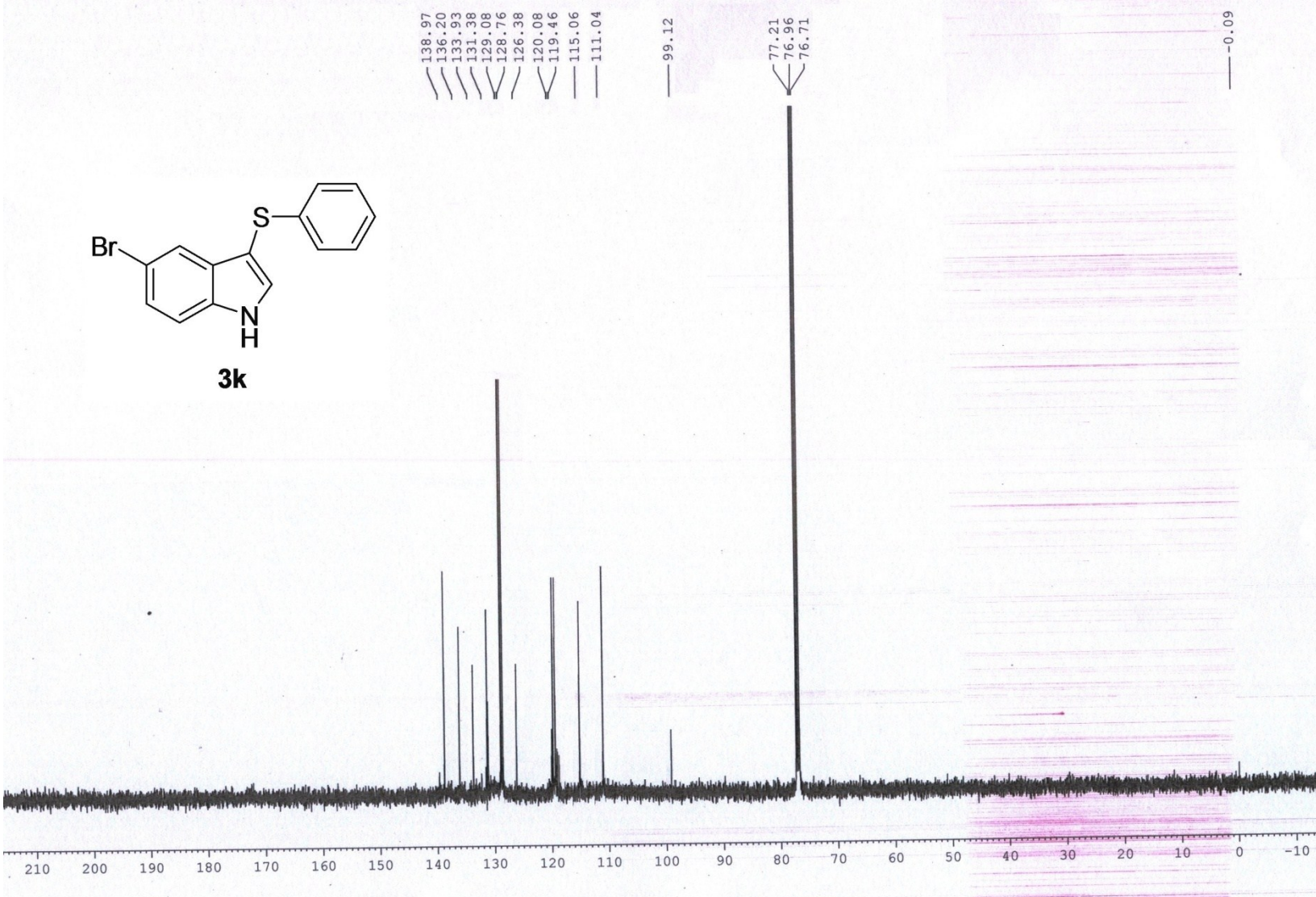
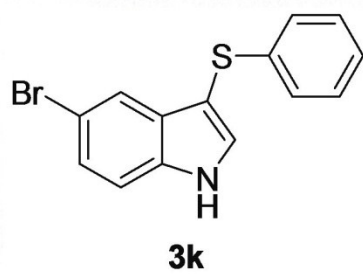
¹H NMR of compound **3j** (DMSO-d₆, 400 MHz)



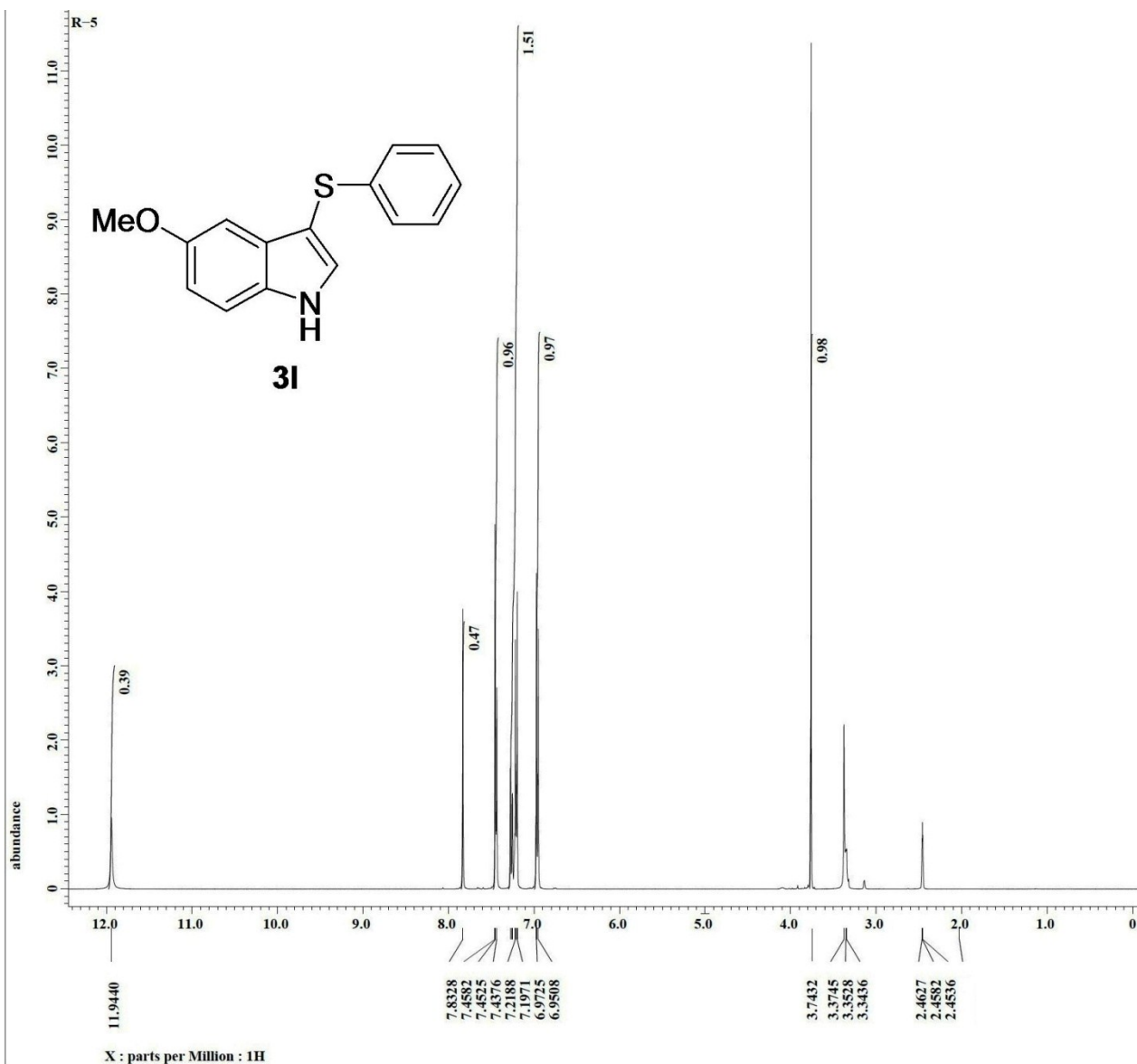
¹H NMR of compound **3k** (DMSO-d₆, 400 MHz)



^{13}C NMR of compound **3k** (CDCl_3 , 150 MHz)



¹H NMR of compound **3I** (DMSO-d₆, 400 MHz)



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 sexp : 0.2[Hz] : 0.0[s]
 trapezoid3 : 0[%] : 80[%] : 100[%]
 zerofill : 1
 fft : 1 : TRUE : TRUE
 machinephase
 ppm
 Derived from: R-5-1.jdf

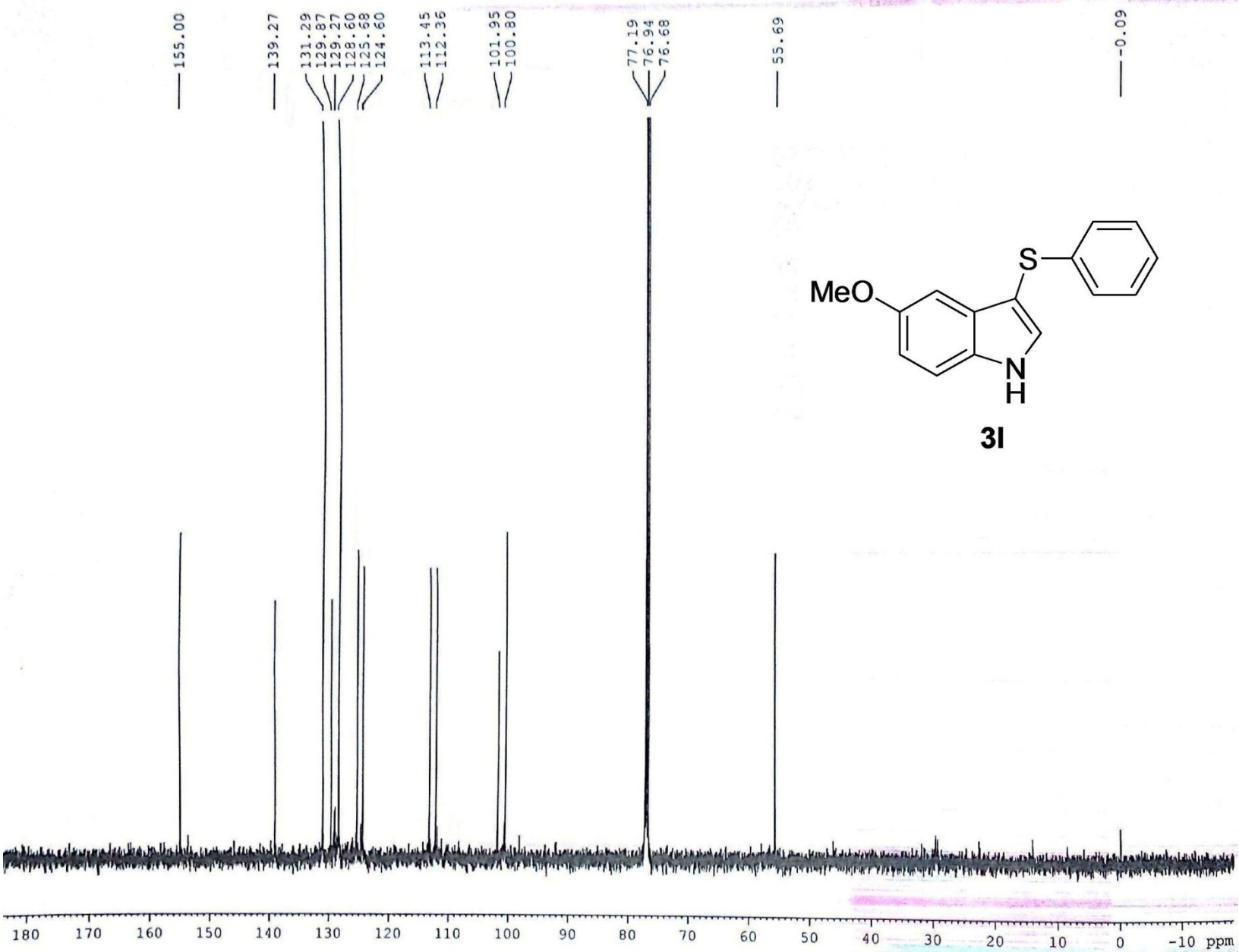
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 Current time = 29-APR-2015 10:48:54

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 Dim size = 13107
 Dim title = 1H
 Dim units = [ppm]
 Dimensions = X
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 Spectrometer = JNM-ECS400

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 X domain = 1H
 X freq = 399.78219838 [MHz]
 X offset = 5 [ppm]
 X points = 16384
 X prescans = 1
 X resolution = 0.45794685 [Hz]
 X sweep = 7.5030012 [kHz]
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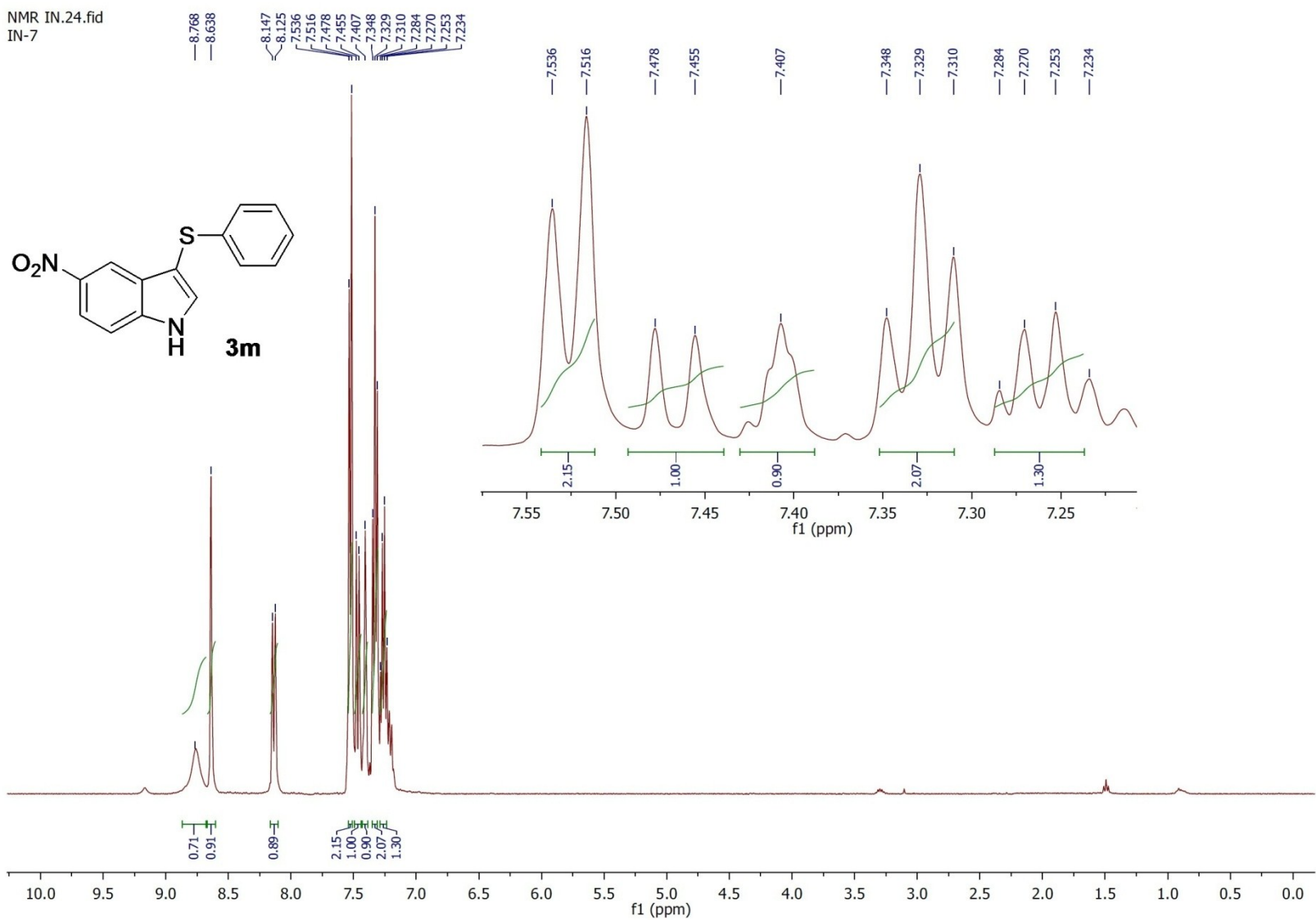
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^{13}C NMR of compound **3I** (CDCl_3 , 125 MHz)

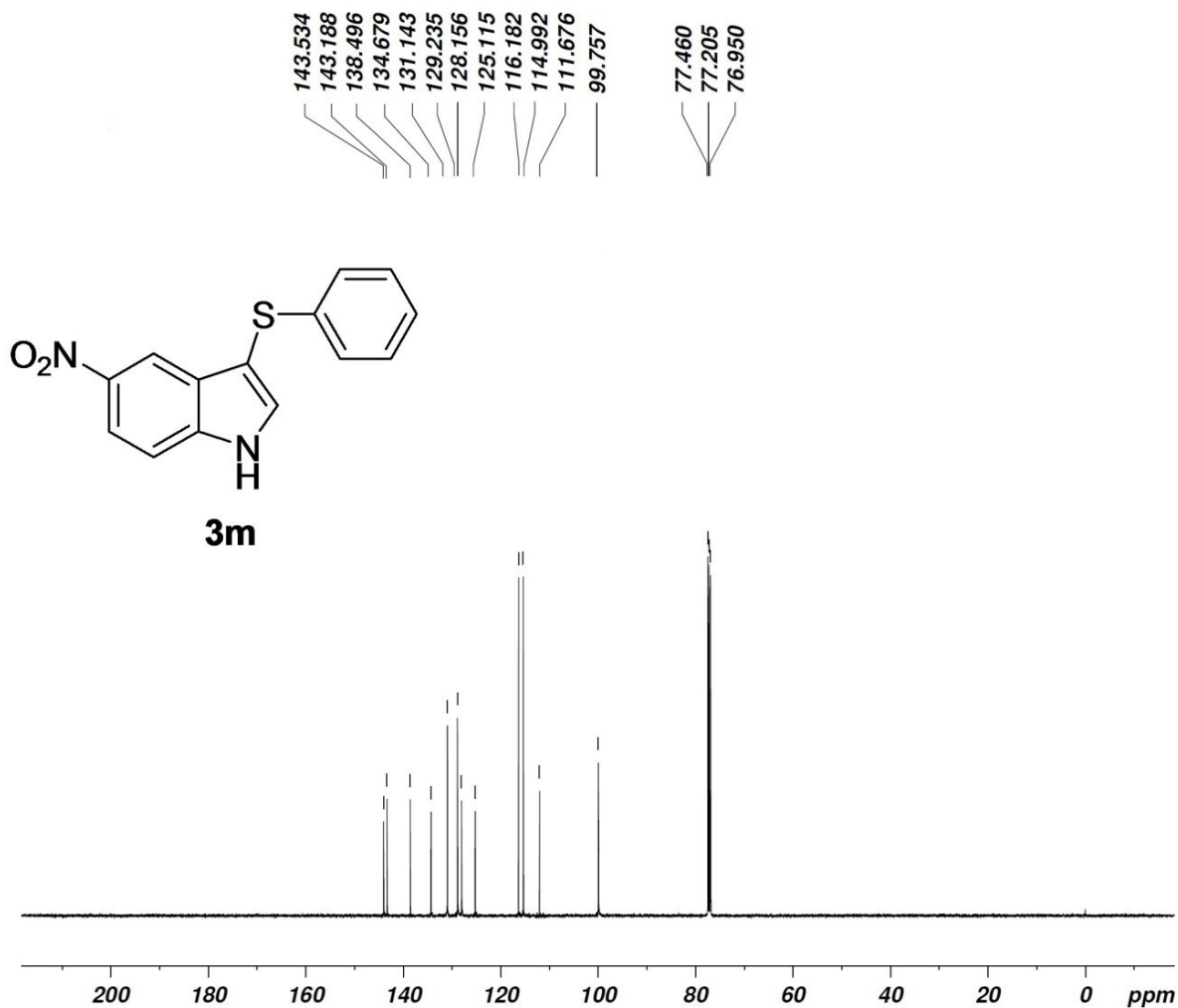


^1H NMR of compound **3m** (CDCl_3 , 400 MHz)

NMR IN.24.fid
IN-7



^{13}C NMR of compound **3m** (CDCl_3 , 125 MHz)



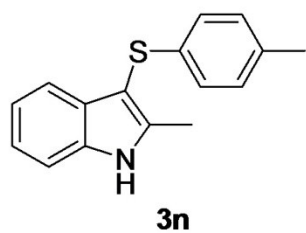
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 PULPROG zgpg30
 TD 32768
 SOLVENT CDCl_3
 NS 1024
 DS 4
 SWH 29761.904 Hz
 FIDRES 0.908261 Hz
 AQ 0.5505524 sec
 RG 203
 DW 16.800 usec
 DE 6.50 usec
 TE 298.6 K
 D1 2.00000000 sec
 D11 0.03000000 sec
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 P1 7.80 usec
 PL1 0.00 dB
 PL1W 70.83519745 W
 SFO1 125.7703643 MHz

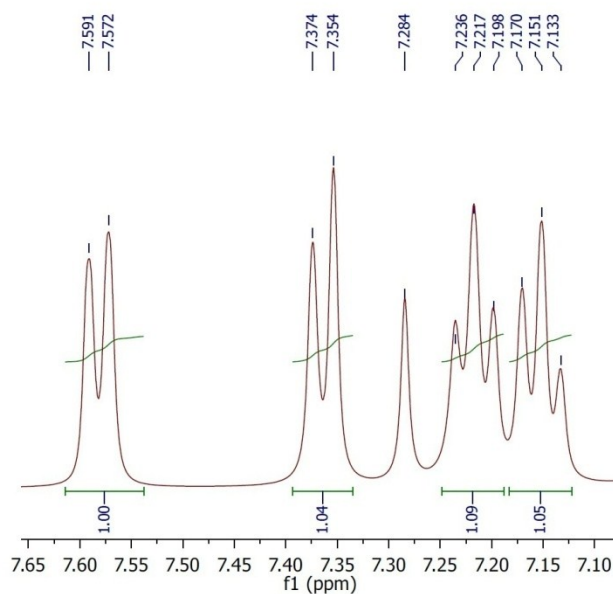
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 NUC2 ^1H
 PCPD2 80.00 usec
 PL2 0.00 dB
 PL12 17.51 dB
 PL13 18.00 dB
 PL2W 23.53637505 W
 PL12W 0.41757989 W
 PL13W 0.37302643 W
 SFO2 500.1320005 MHz

^1H NMR of compound **3n** (D_2O , 400 MHz)



8.257
7.591
7.572
7.374
7.354
7.284
7.236
7.217
7.198
7.170
7.151
7.133
7.015
6.993
6.938

2.542
2.275



0.99

1.00

1.04

1.09

1.05

4.13

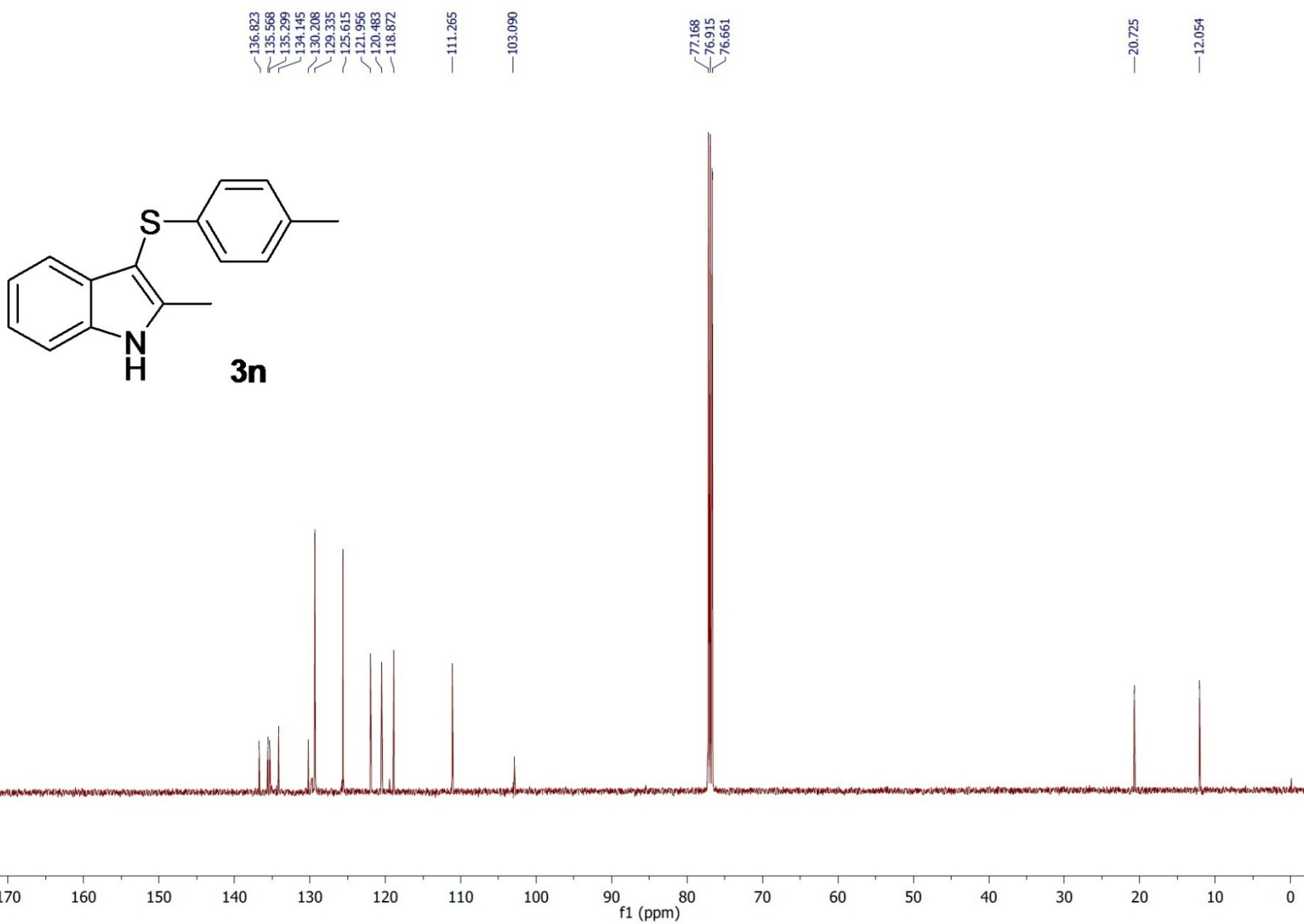
3.12

3.19

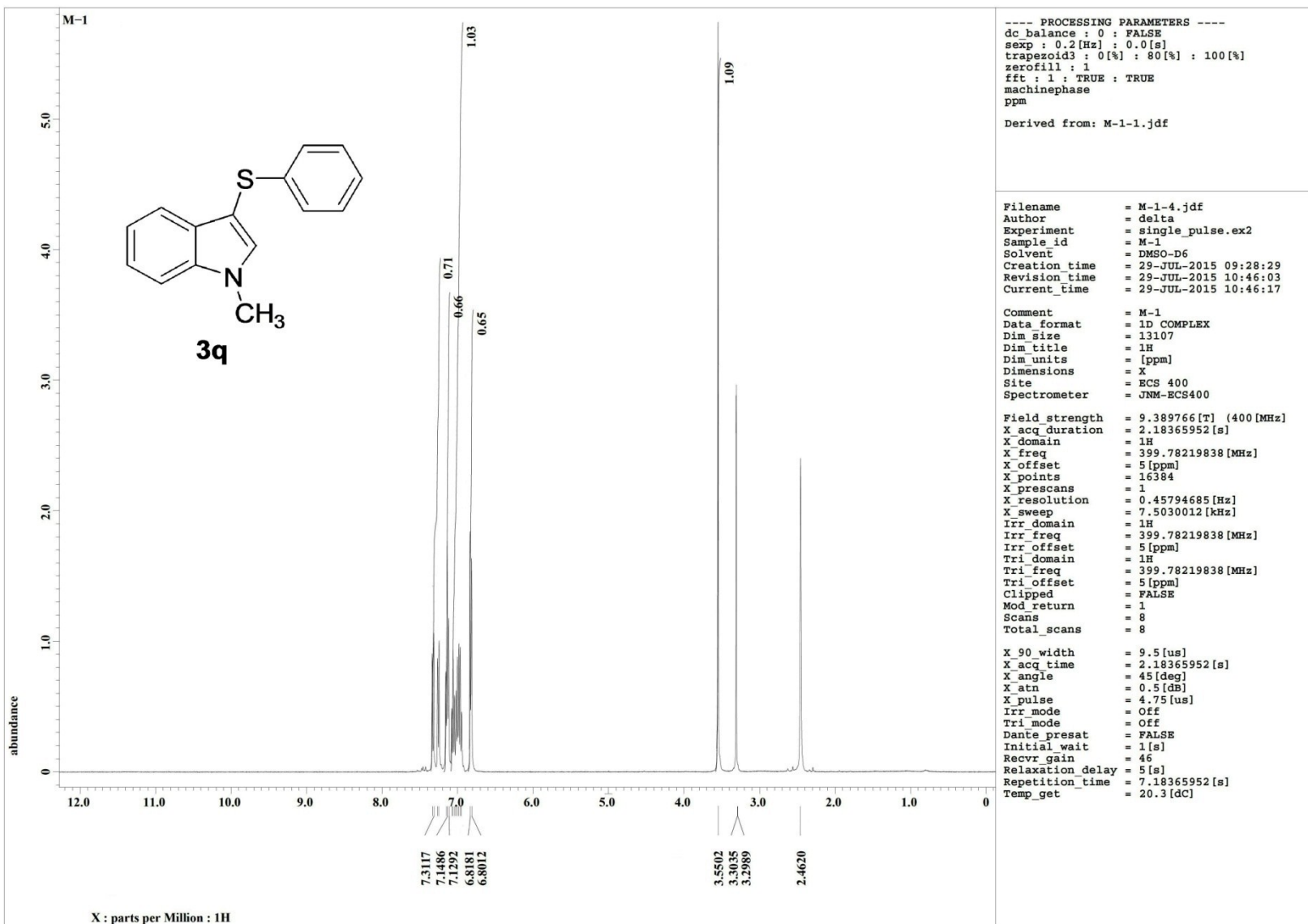
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f1 (ppm)

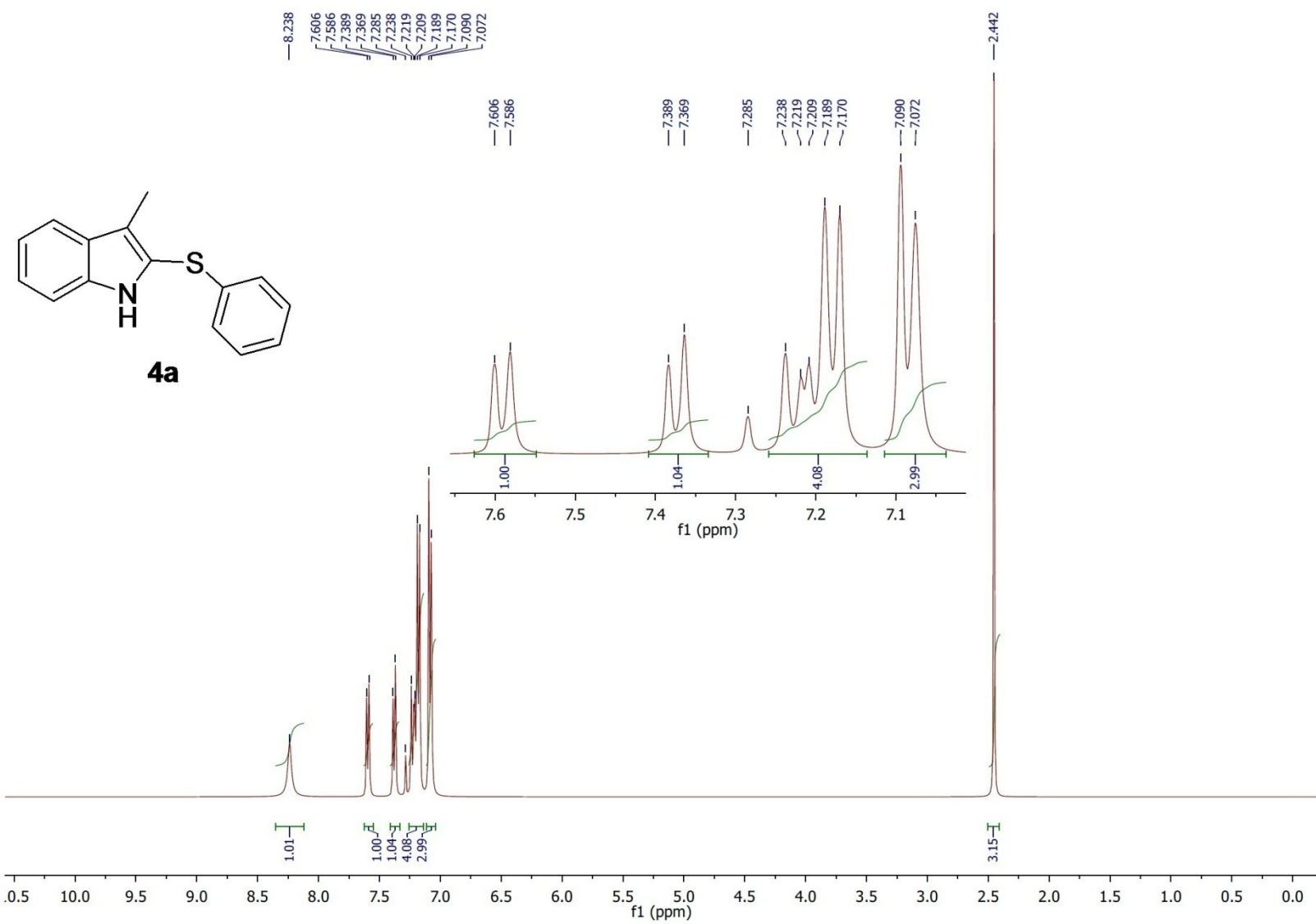
^{13}C NMR of compound **3n** (CDCl_3 , 125 MHz)



¹H NMR of compound **3q** (DMSO-d₆, 400 MHz)

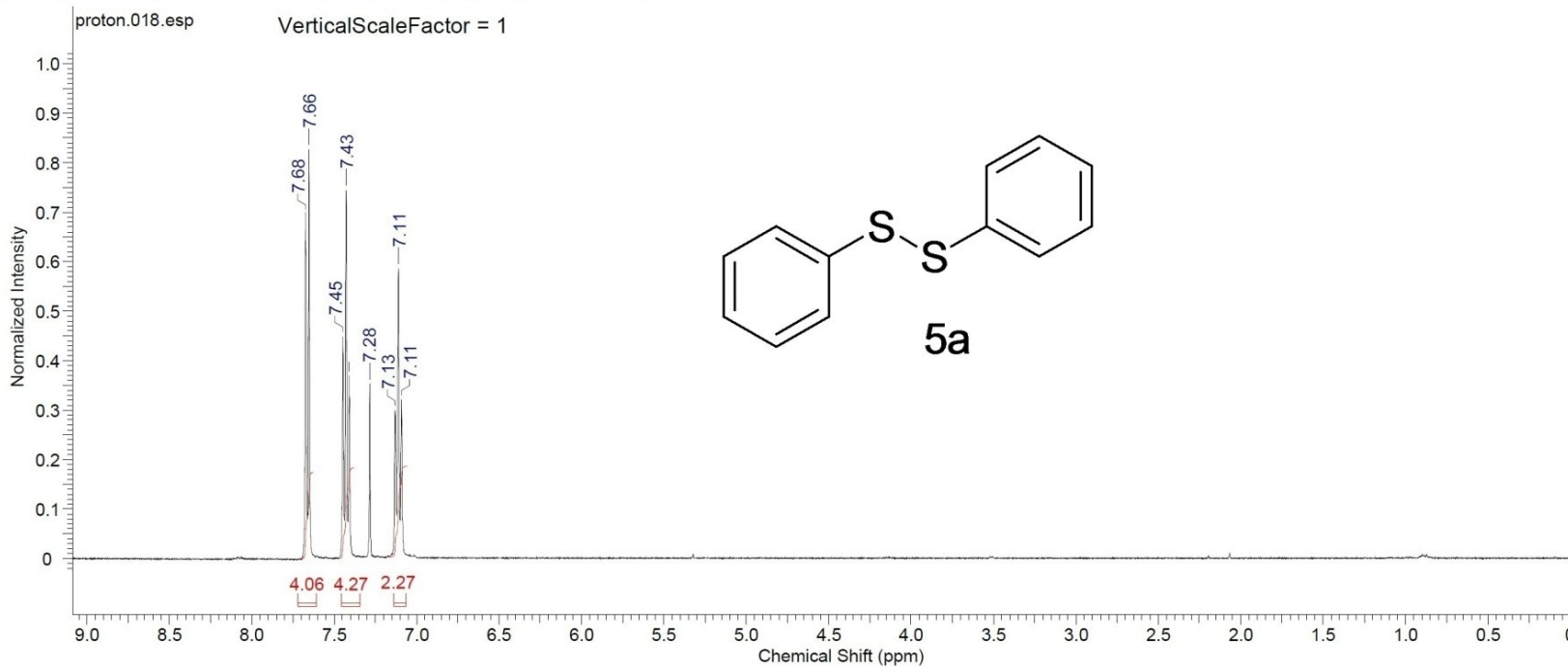


^1H NMR of compound **4a** (CDCl_3 , 400 MHz)



¹H NMR of compound **5a** (CDCl₃, 400 MHz)

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^{13}C NMR of compound **5a** (CDCl_3 , 100 MHz)

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