Electronic Supplementary Information for

Synthesis and investigation on processing-depending polarized fluorescence emission in thin-films of 2,2'-([2,2'-Bithiophene]-5,5'-diyl)bis(5-octyl-4-phenyl-4H-thieno[2,3-c]pyrrol-6(5H)-one)

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Contents:

1. NOE spectra of compound 2a.

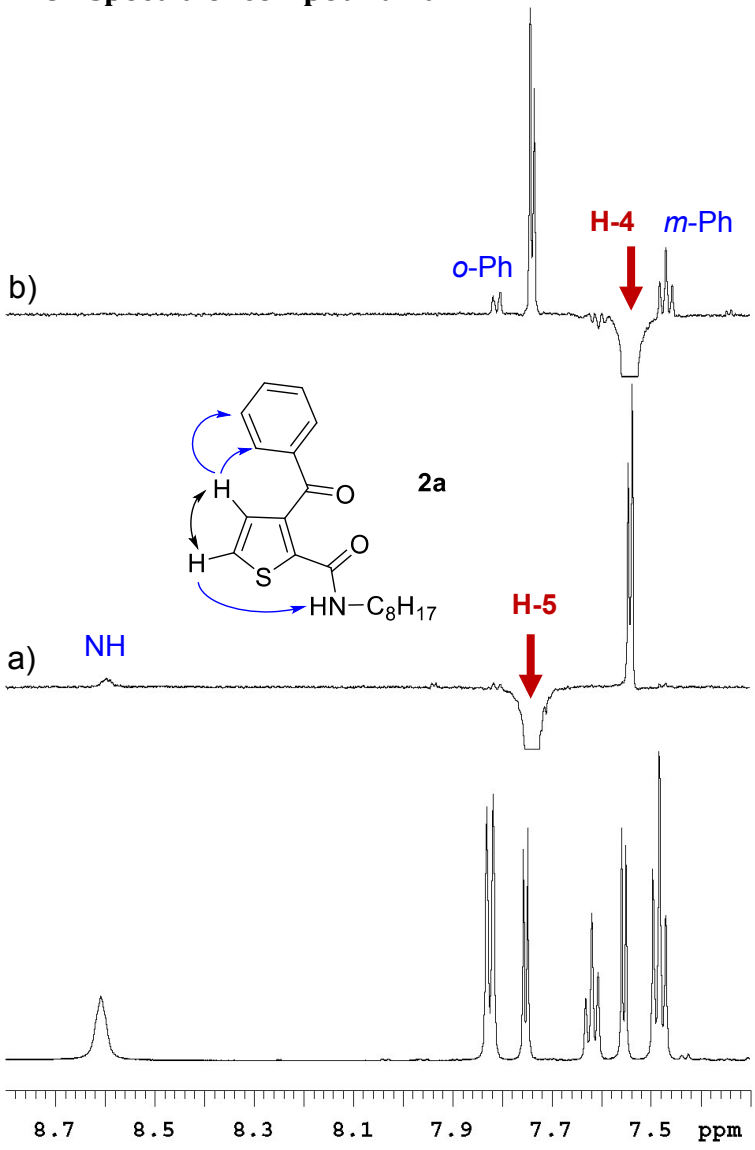


Figure S1.

2. HMBC spectra of compound 2a

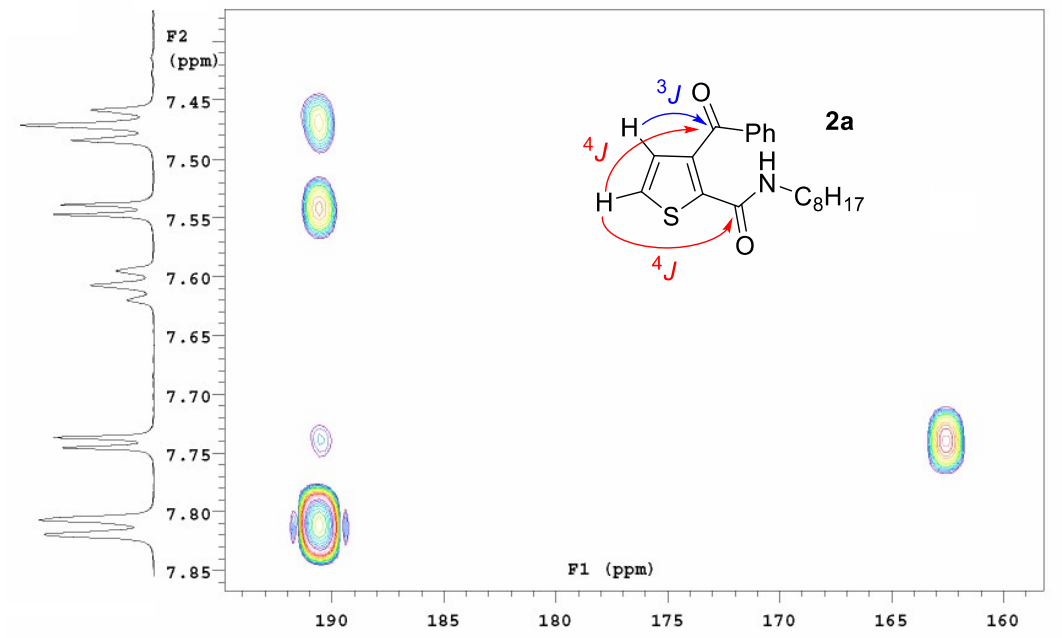
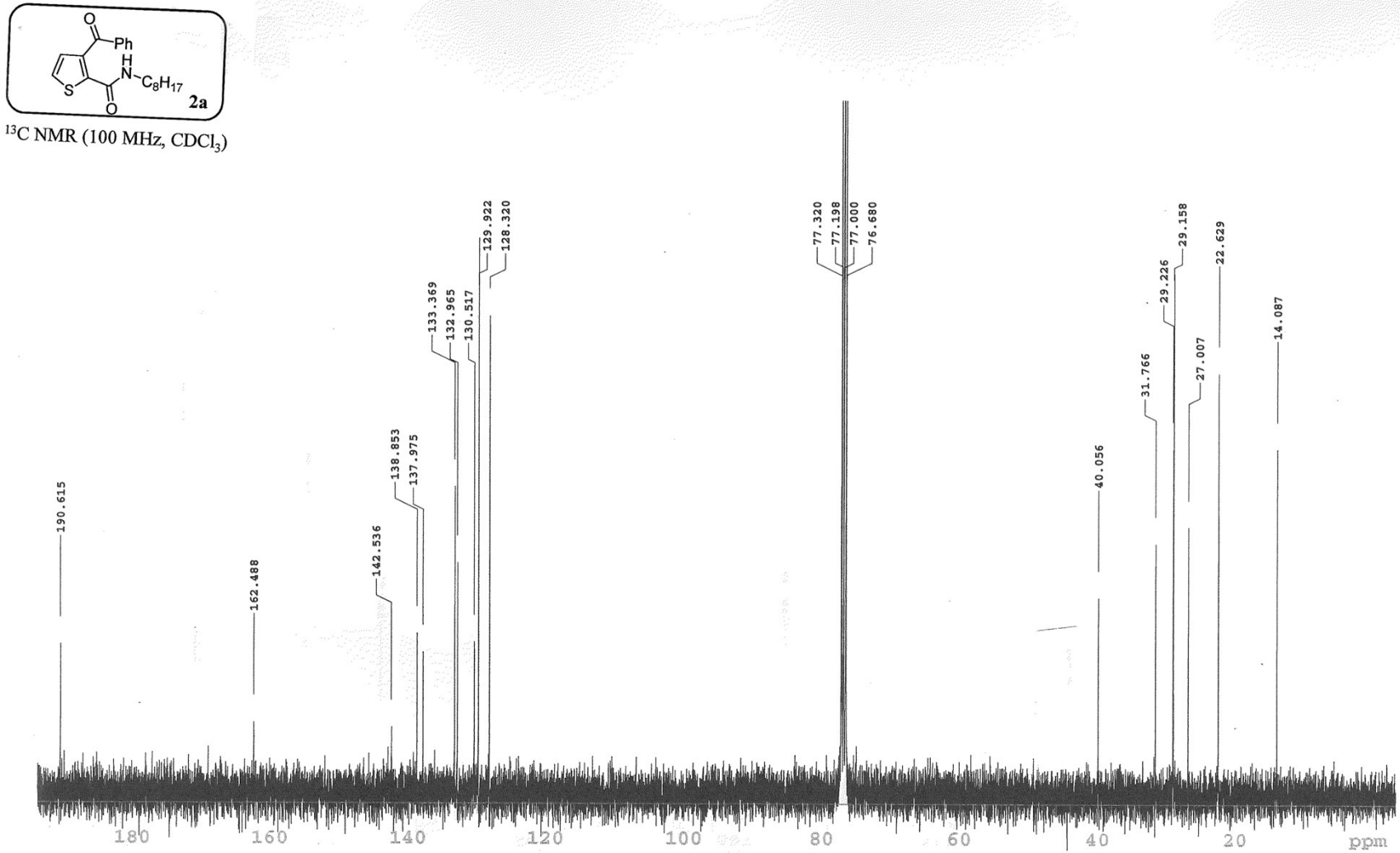
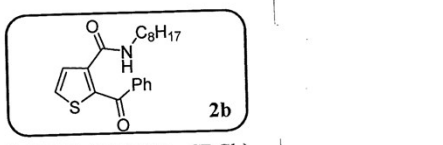


Figure S2.

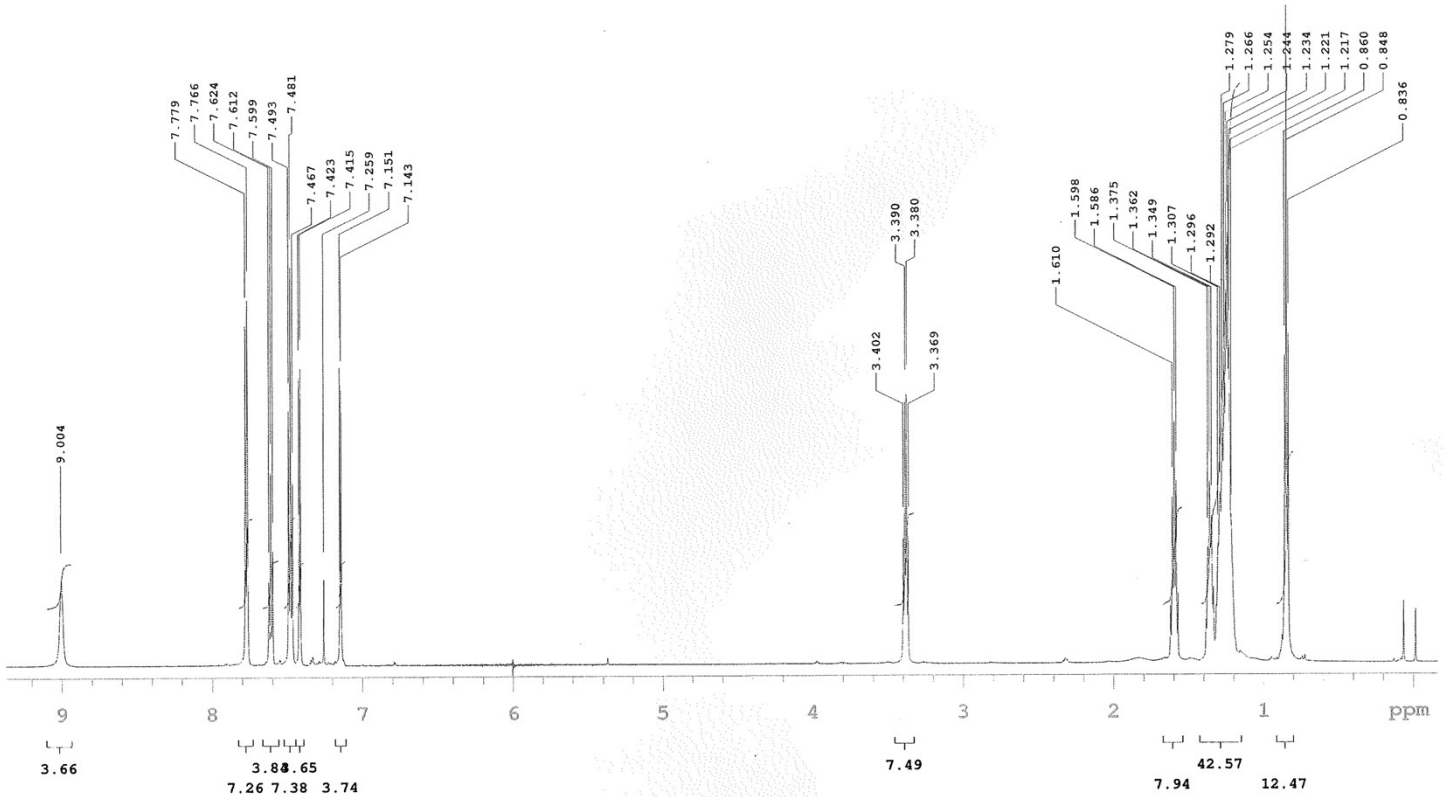
3. ^{1}H, ^{13}C NMR spectra of compounds 2a, 2b, 3a, and 4

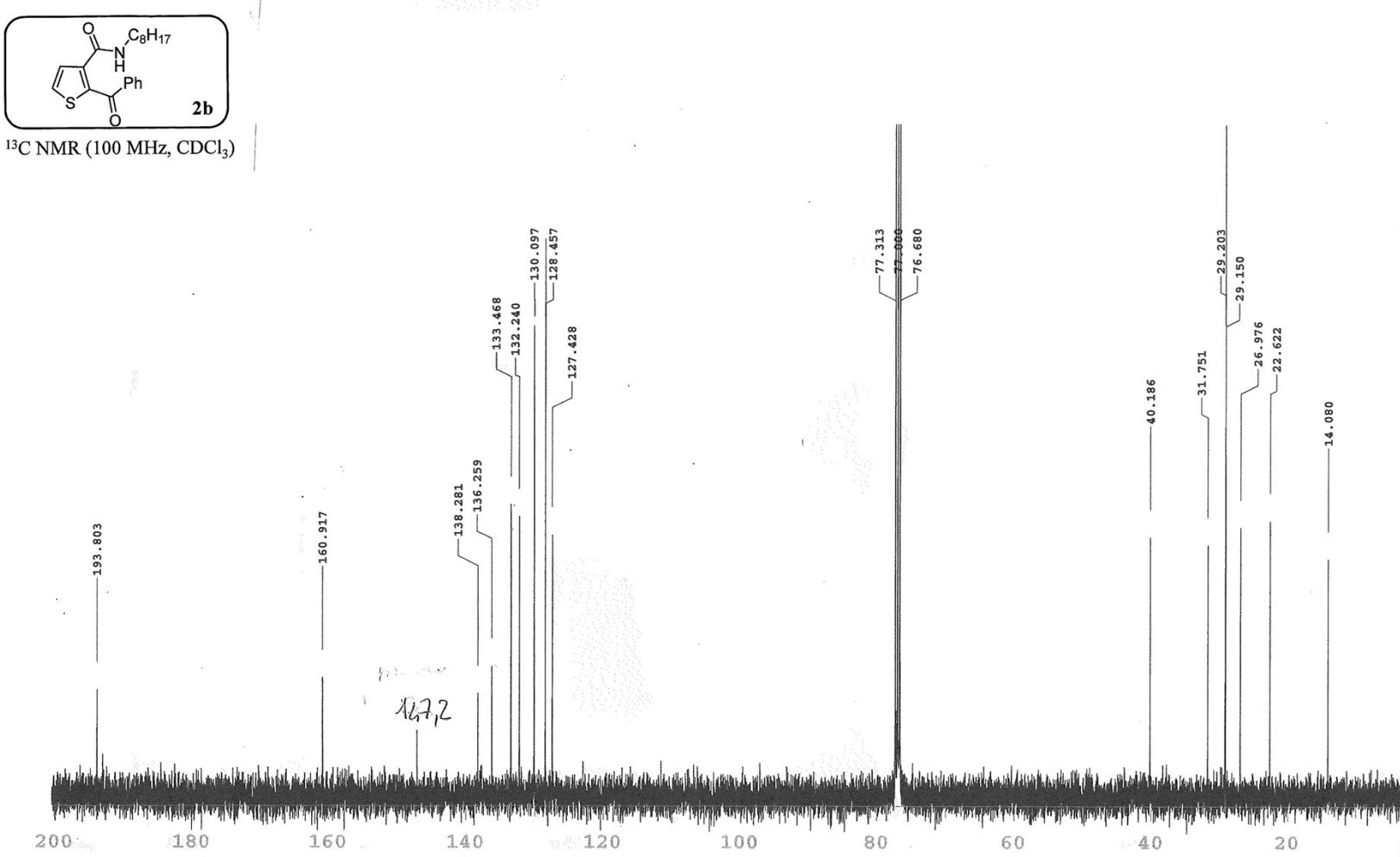

Ph
H
N
C_8H_{17}
S
O
O
2a
^{13}C NMR (100 MHz, $CDCl_3$)
190.615
162.488
142.536
138.853
137.975
133.369
132.965
130.517
129.922
128.320
77.320
77.198
77.000
76.680
40.056
31.766
29.226
29.158
27.007
22.629
14.087
180
160
140
120
100
80
60
40
20
ppm
8
7
6
5
4
3
2
1
ppm
3.12
3.16
6.22
6.22
3.36
5.41
6.57
44.00
7.81
16.14



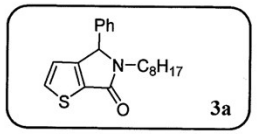
2b

^{1}H NMR (600 MHz, $CDCl_3$)

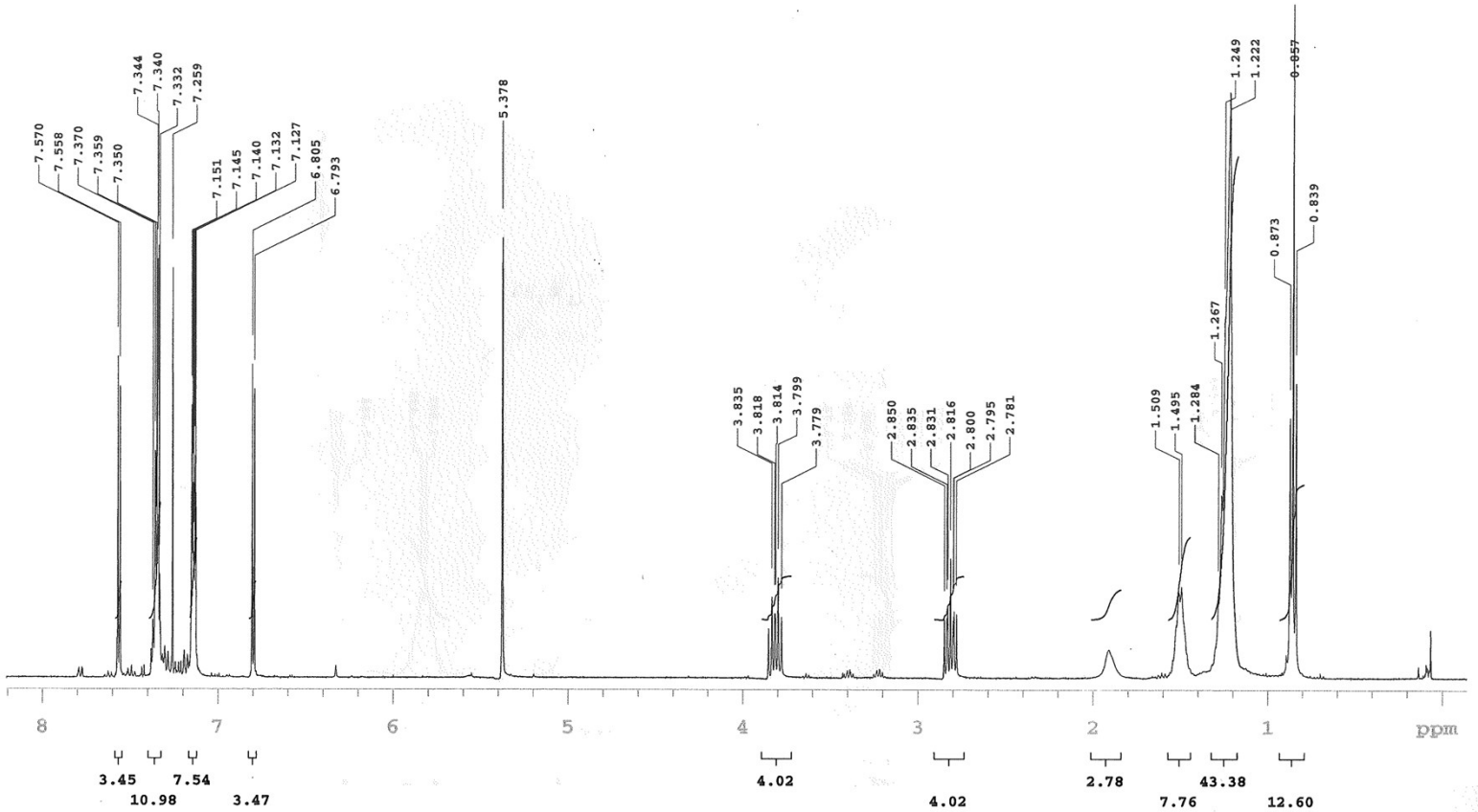


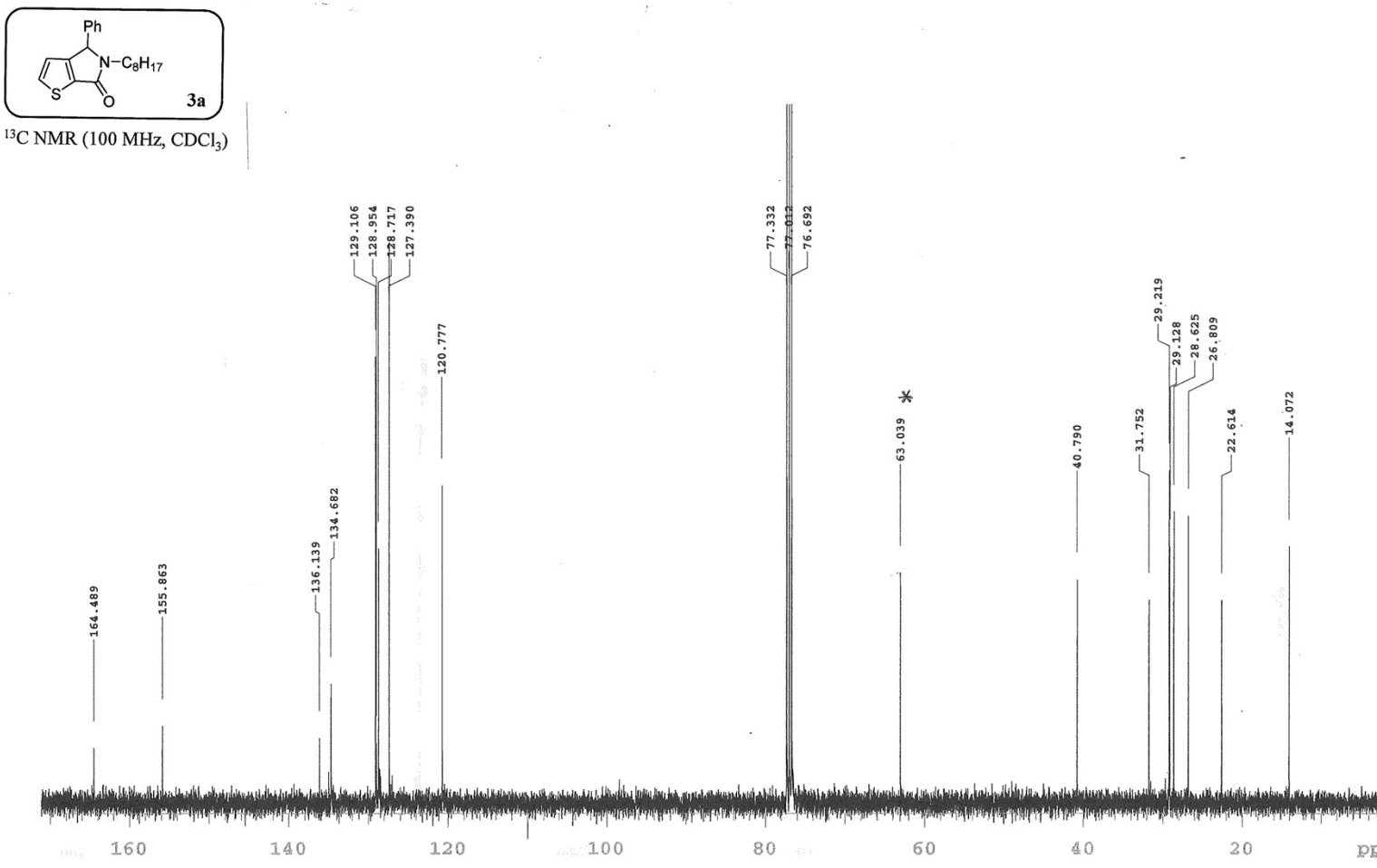


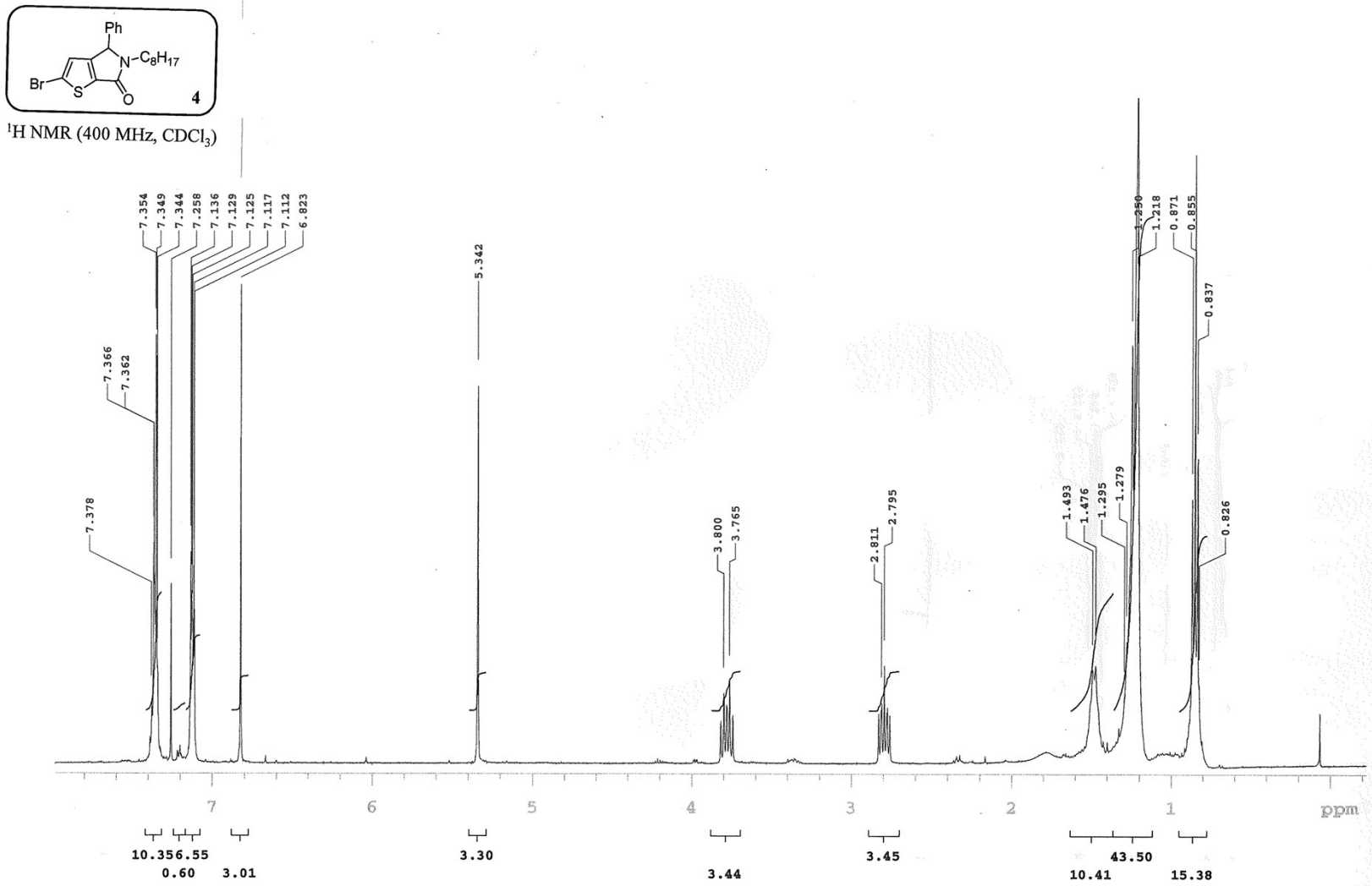
^{13}C NMR (100 MHz, $CDCl_3$)

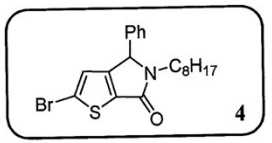


^{1}H NMR (400 MHz, $CDCl_3$)

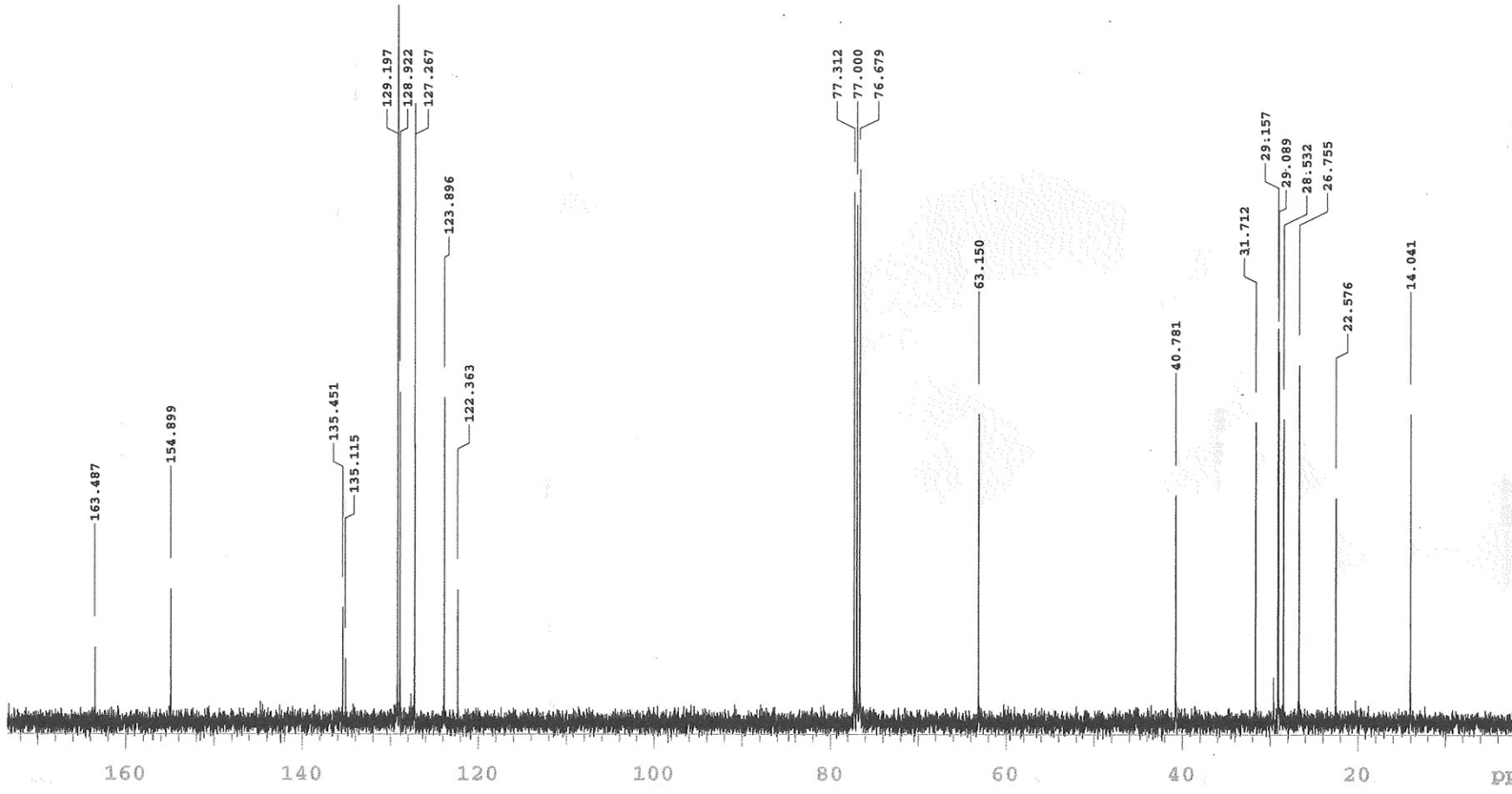


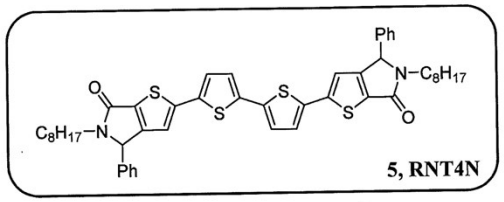

Ph
N–C8H17
S
O
3a
13C NMR (100 MHz, CDCl3)
164.489
155.863
136.139
134.682
129.106
128.954
128.717
127.390
120.777
77.332
77.012
76.692
63.039
40.790
31.752
29.219
29.128
28.625
26.809
22.614
14.072
160
140
120
100
80
60
40
20


Ph
N-C8H17
Br
S
O
4
1H NMR (400 MHz, CDCl3)
7.354
7.349
7.344
7.258
7.136
7.129
7.125
7.117
7.112
6.823
7.366
7.362
7.378
5.342
3.800
3.765
2.811
2.795
1.493
1.476
1.295
1.279
1.250
1.218
0.871
0.855
0.837
0.826
7
6
5
4
3
2
1
ppm
10.35
6.55
0.60
3.01
3.30
3.44
3.45
43.50
10.41
15.38



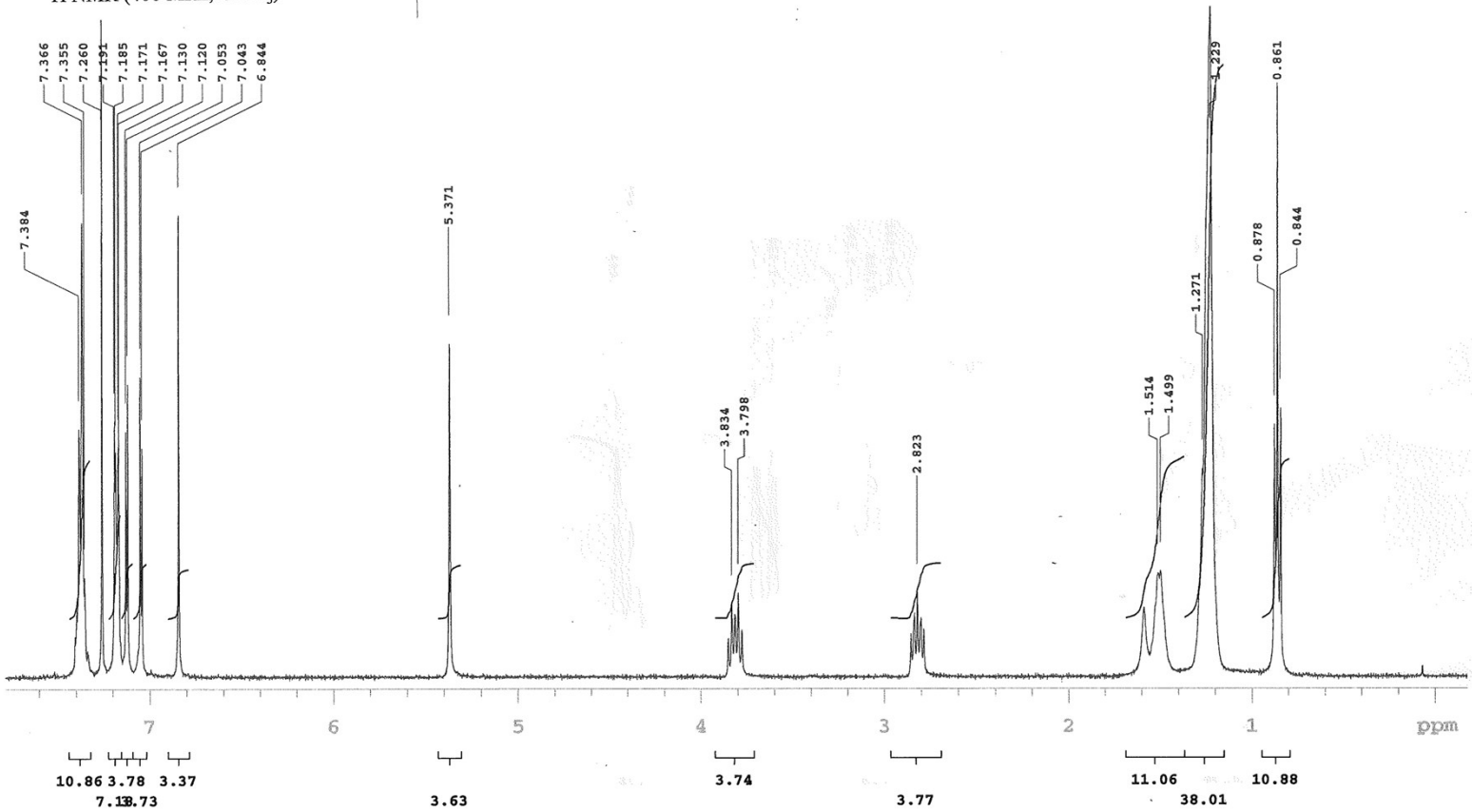
^{13}C NMR (100 MHz, $CDCl_3$)

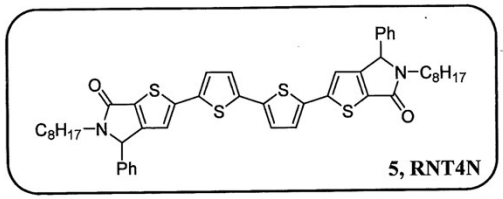




5, RNT4N

^{1}H NMR (400 MHz, $CDCl_3$)





5, RNT4N

^{13}C NMR (100 MHz, $CDCl_3$)