Supporting Information for

Pd/Cu-Catalyzed Tandem Head-to-Tail Dimerization/ Cycloisomerization of Terminal Ynamides for the synthesis of 5-Vinyloxazolones

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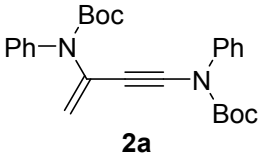
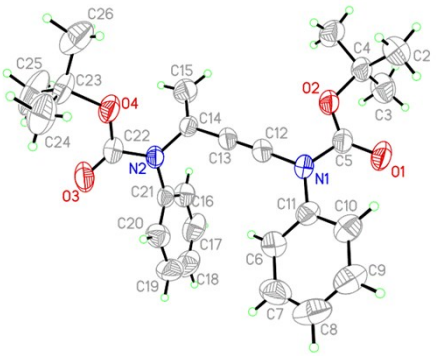
[†] *These authors contributed equally to this work*

X-ray Single Crystal Data of 2a

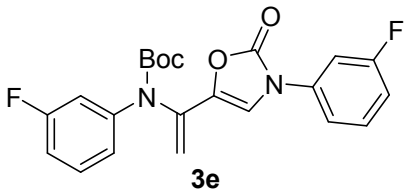


2a

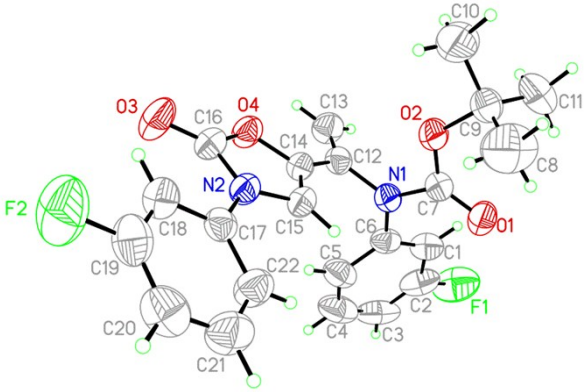


Crystal data for **2a**: $C_{26}H_{30}N_2O_4$; M = 434.52; Triclinic; space group *P*-1; final R indices [$I>2\sigma(I)$]: R_1=0.0995, wR_2 =0.2767, R indices(all data): R_1=0.1161, wR_2=0.2702, a = 10.797(13), b = 11.711(15), c = 12.514(15)Å, α = 113.344 (17), β = 96.823(19), γ = 113.413(19)°; V = 1259(3)Å^3; T = 296K; Z = 2; reflection measured/independent: 6603/4351 (R_{int} = 0.031), number of observations [$I>2\sigma(I)$]: 3229, parameters: 295. CCDC-1486452 contains the supplementary crystallographic data for this paper. These data can be obtained free of charge from The Cambridge Crystallographic Data Centre via www.ccdc.cam.ac.uk/data_request/cif.

X-ray Single Crystal Data of 3e



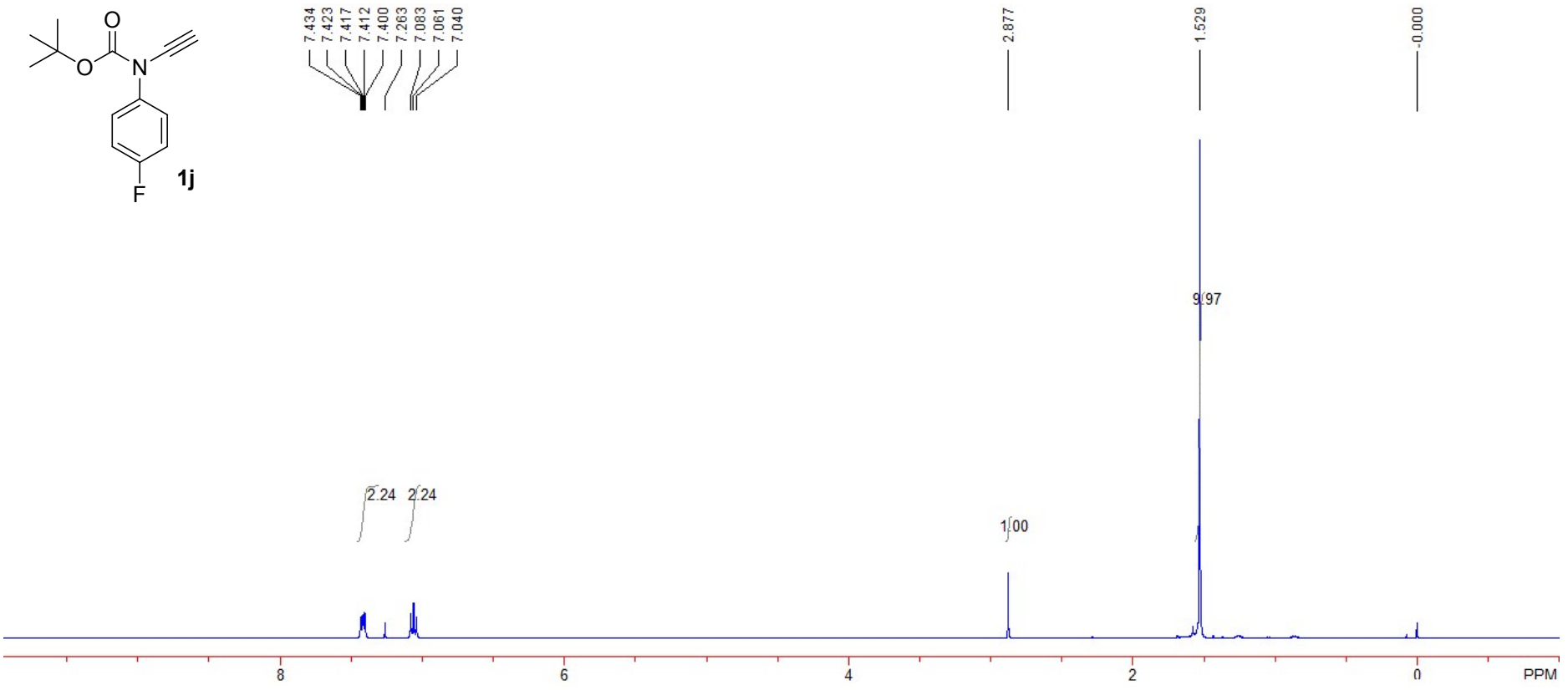
3e



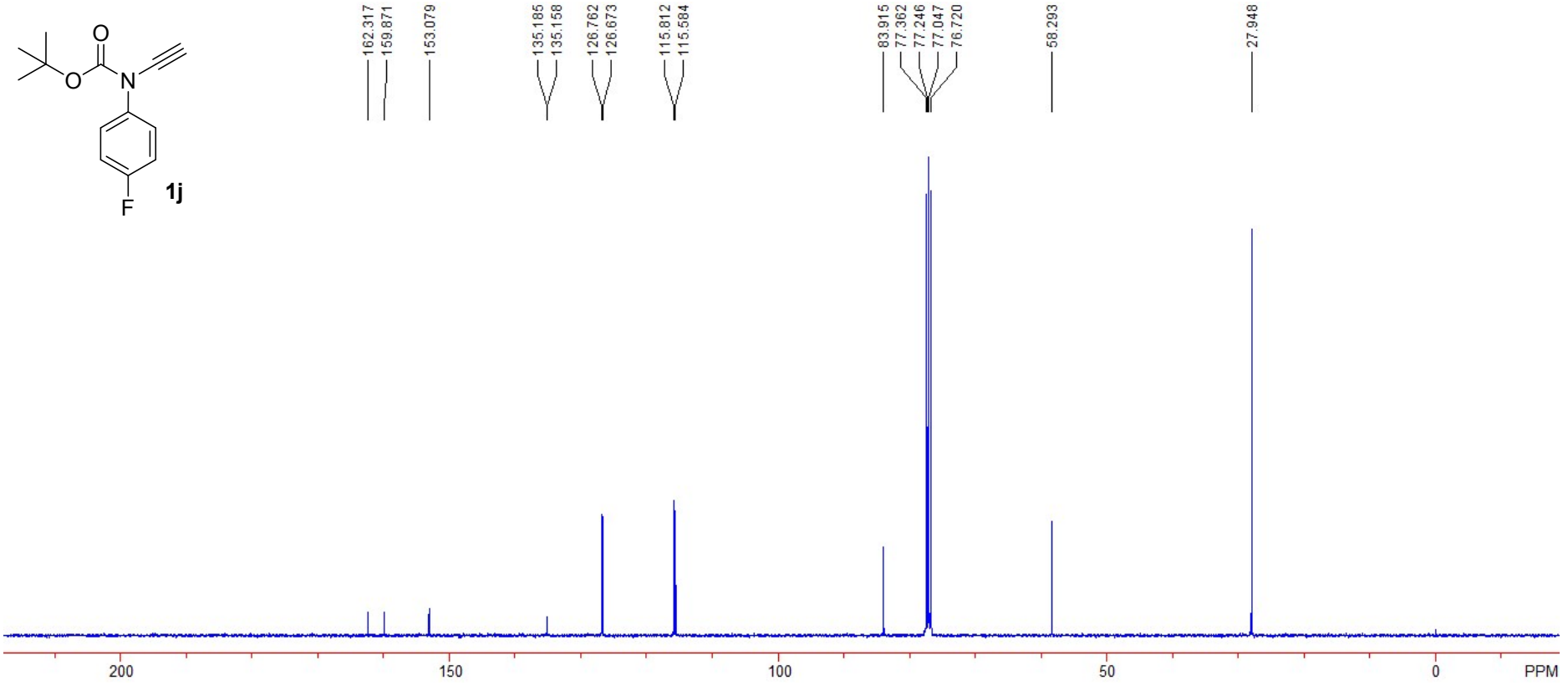
Crystal data for **3e**: $C_{22}H_{20}F_2N_2O_4$; M = 414.40; Triclinic; space group *P*-1; final R indices [$I>2\sigma(I)$]: R_1=0.0473, wR_2 =0.1263, R indices(all data): R_1=0.0611, wR_2=0.1178, a = 9.3577(8), b = 11.4090(9), c = 11.7512(15)Å, α = 63.086(2), β = 75.619(2), γ = 69.263(2)°; V = 1040.37(14)Å^3; T = 296K; Z = 2; reflection measured/independent: 7429/3630 (R_{int} = 0.030), number of observations [$I>2\sigma(I)$]: 2870, parameters: 275. CCDC-1486451 contains the supplementary crystallographic data for this paper. These data can be obtained free of charge from The Cambridge Crystallographic Data Centre via www.ccdc.cam.ac.uk/data_request/cif.

NMR Spectra

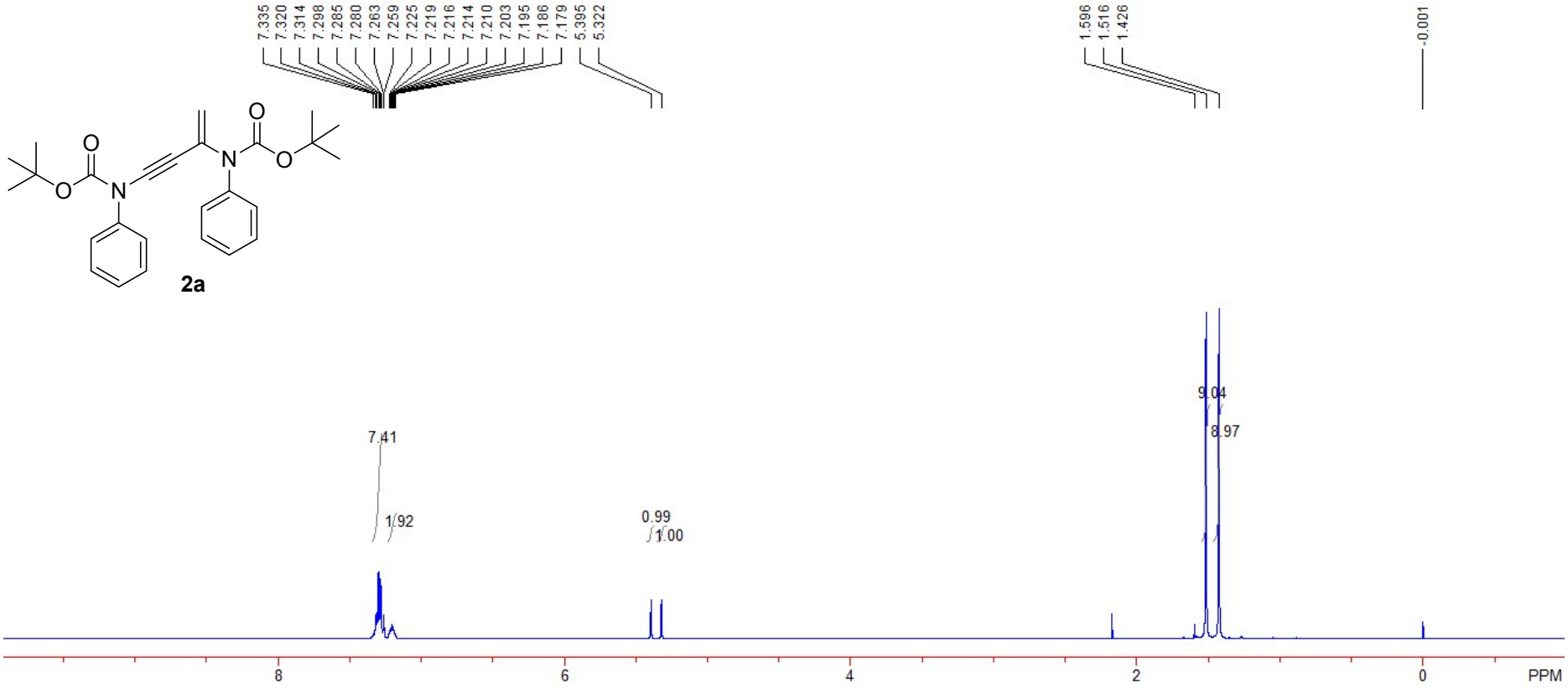
^{1}H NMR (400Hz, $CDCl_3$)



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

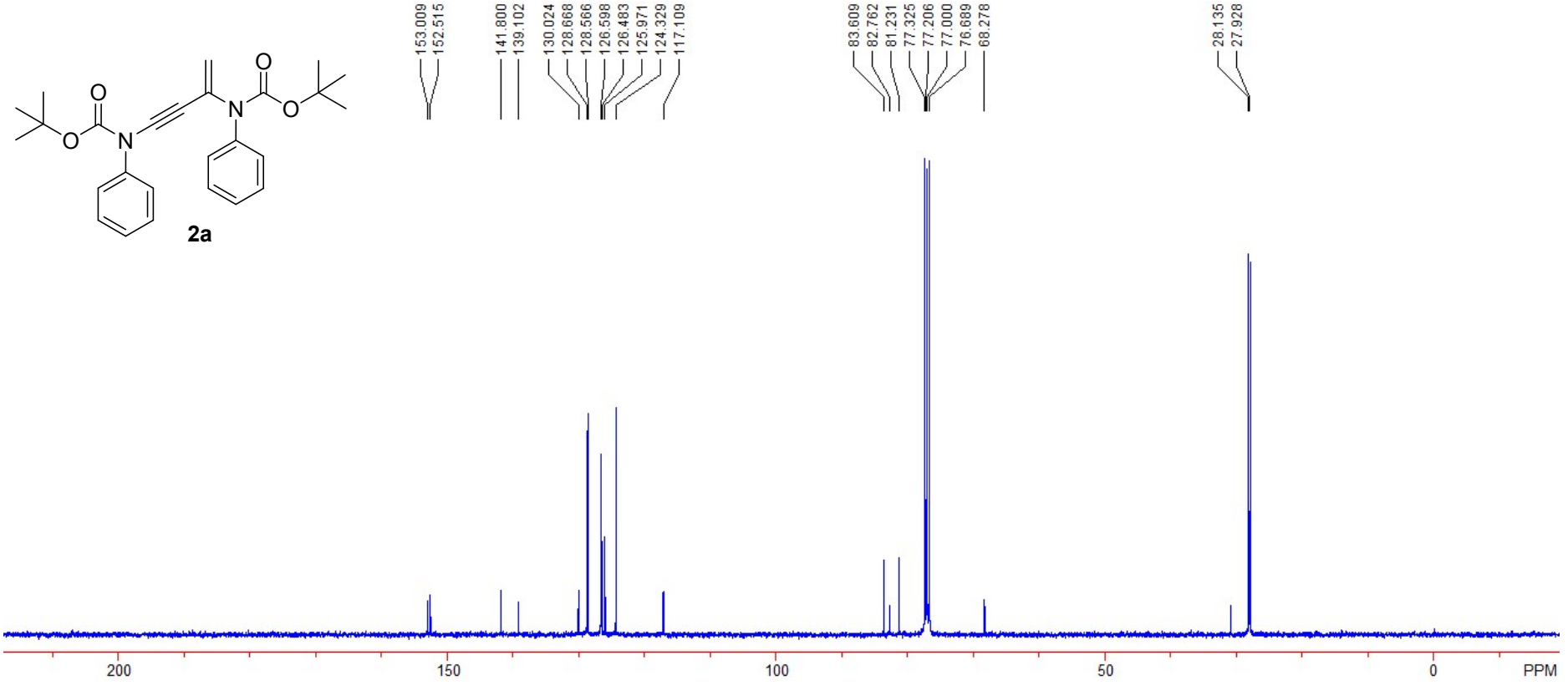


^{1}H NMR (400Hz, $CDCl_3$)



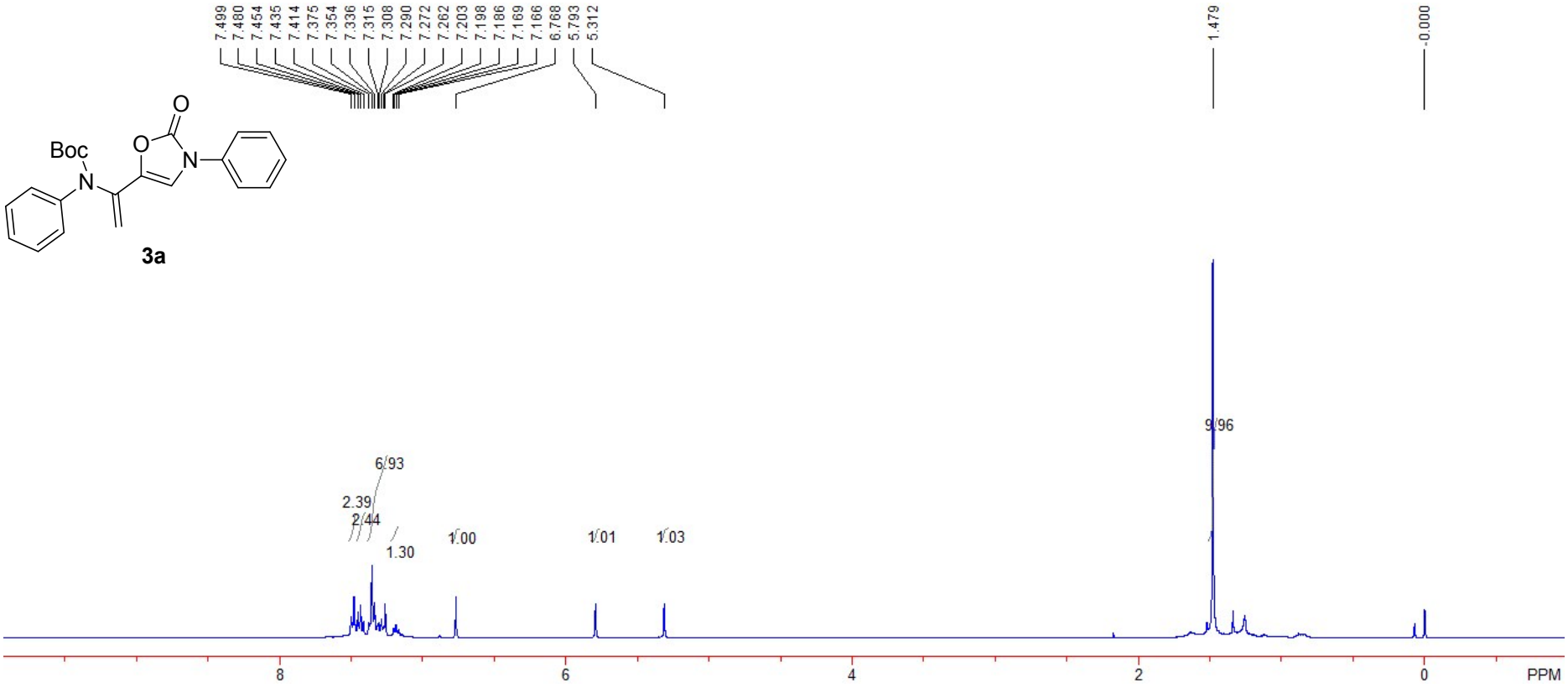
2a

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



2a

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



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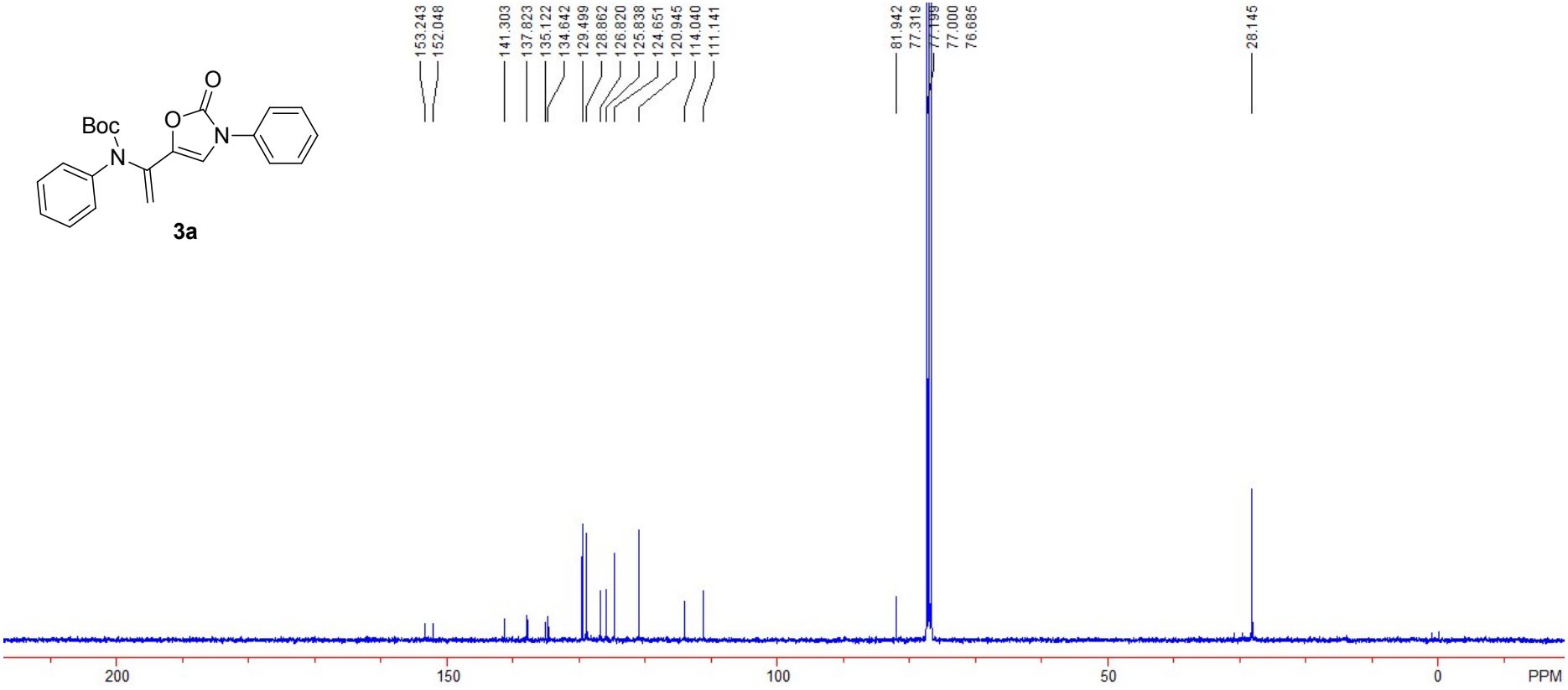
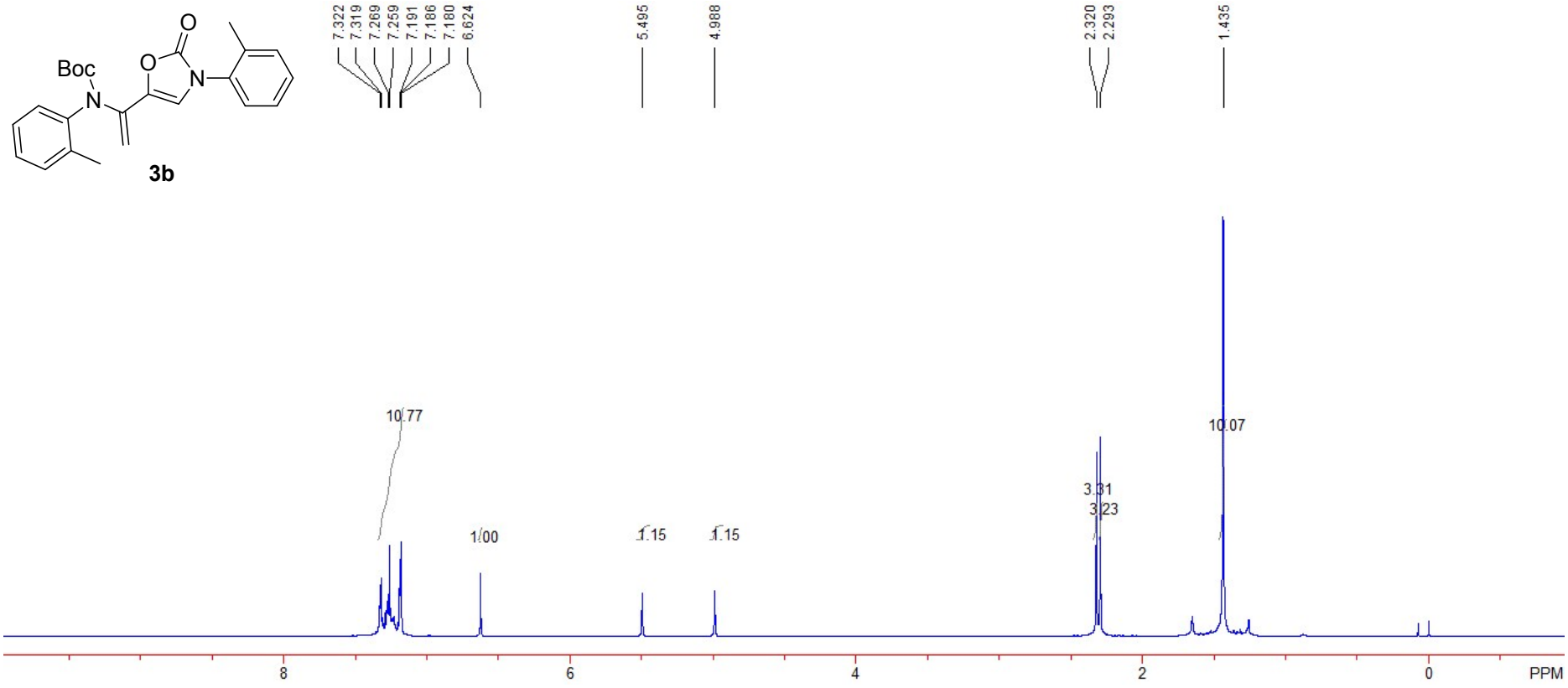
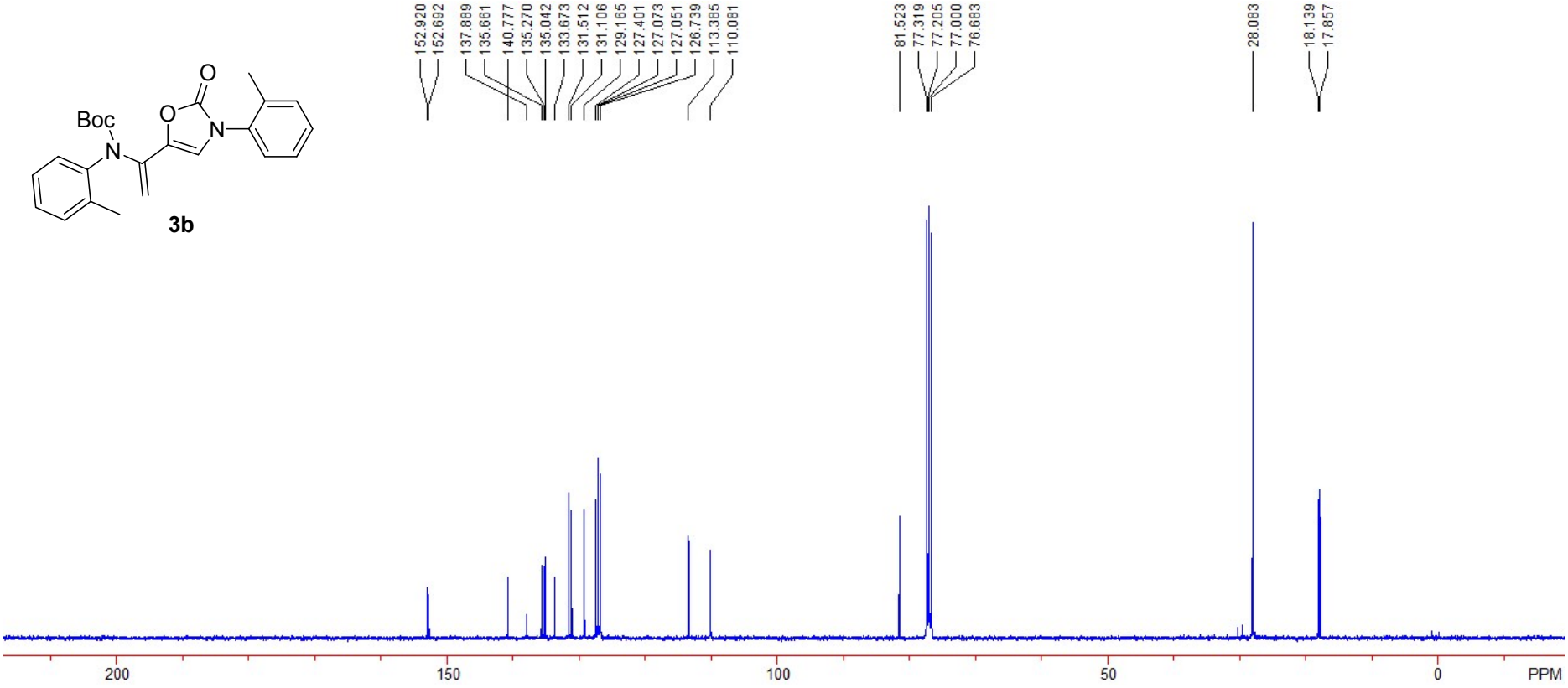


3a

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

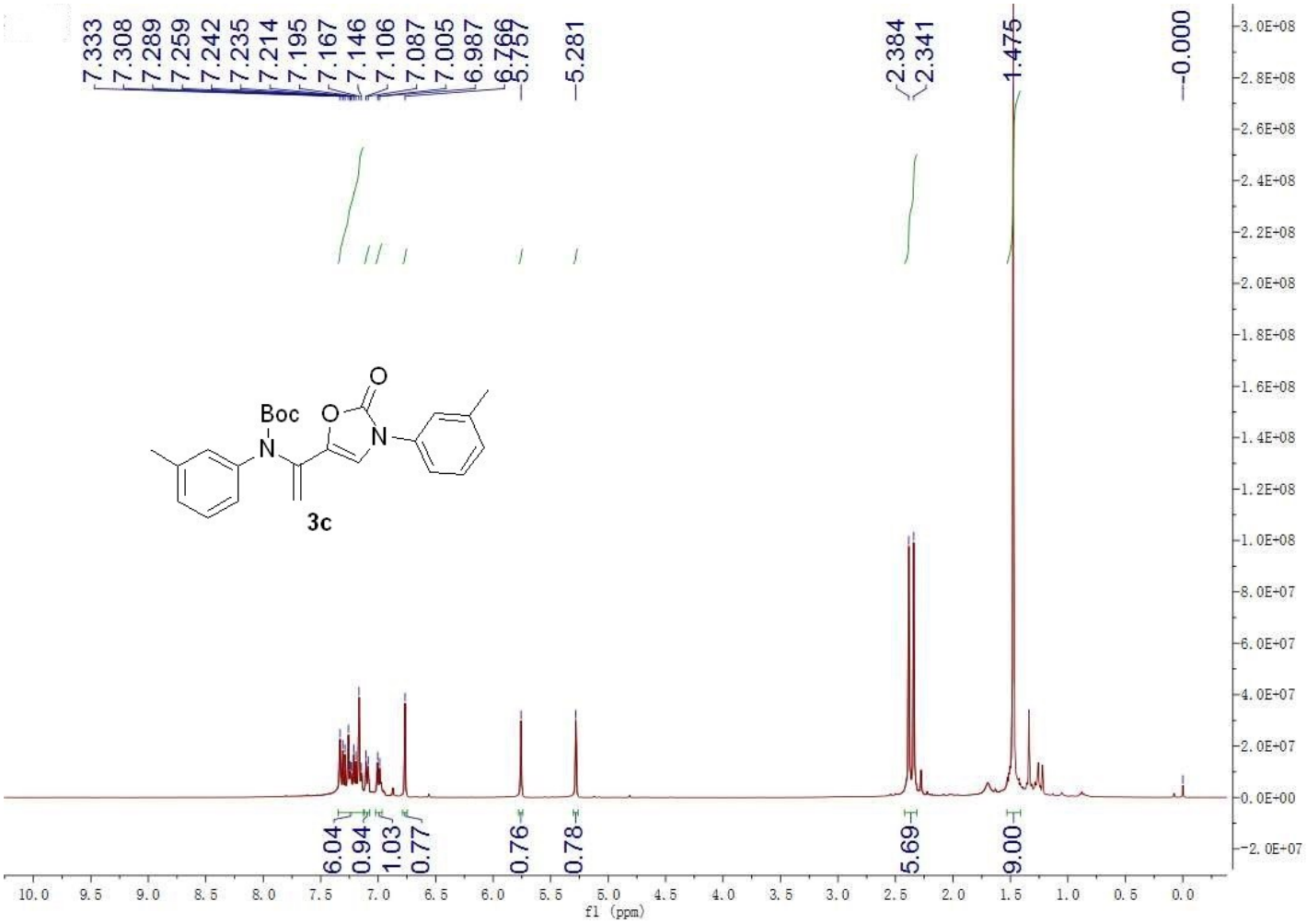


^{13}C NMR (100Hz, $CDCl_3$)

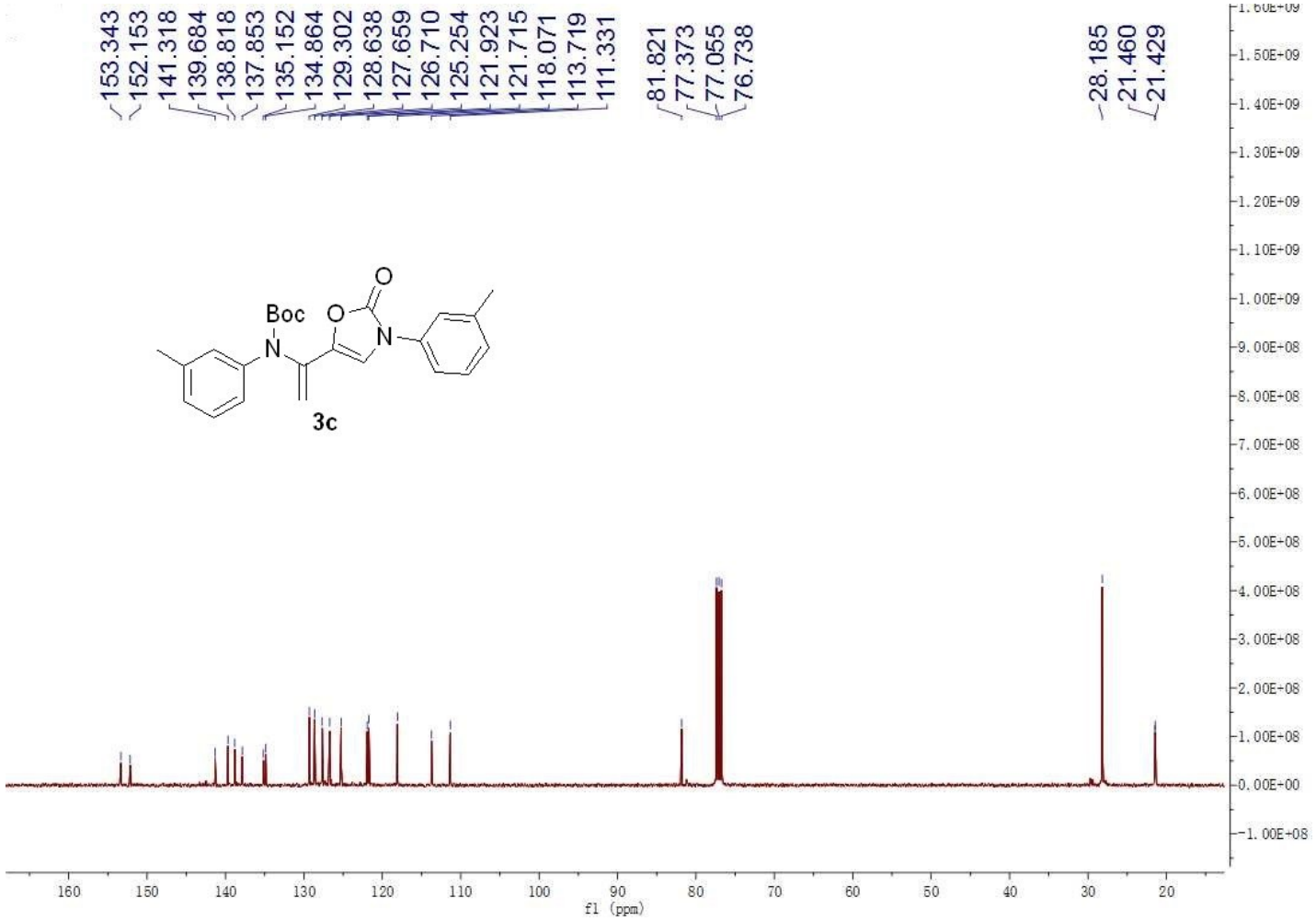


3b

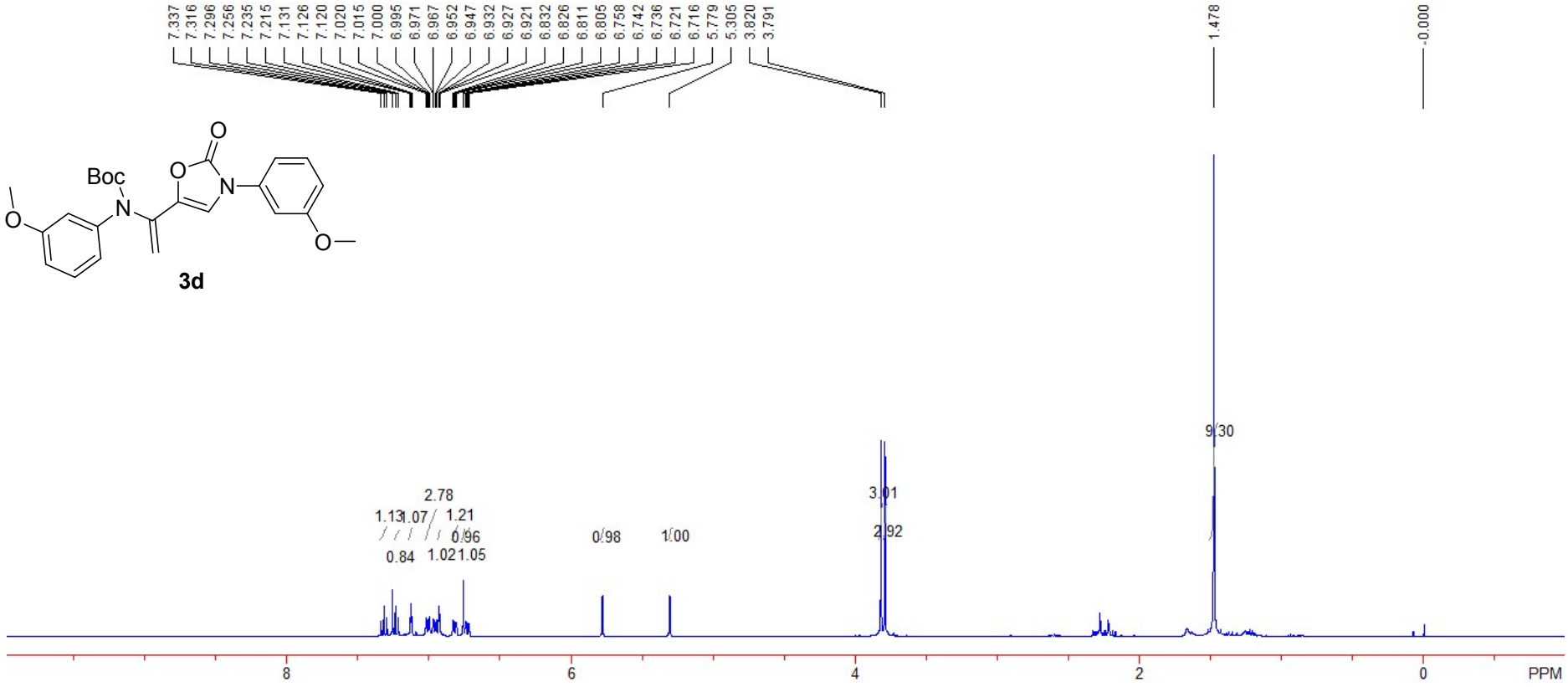
^{1}H NMR (400Hz, $CDCl_3$)



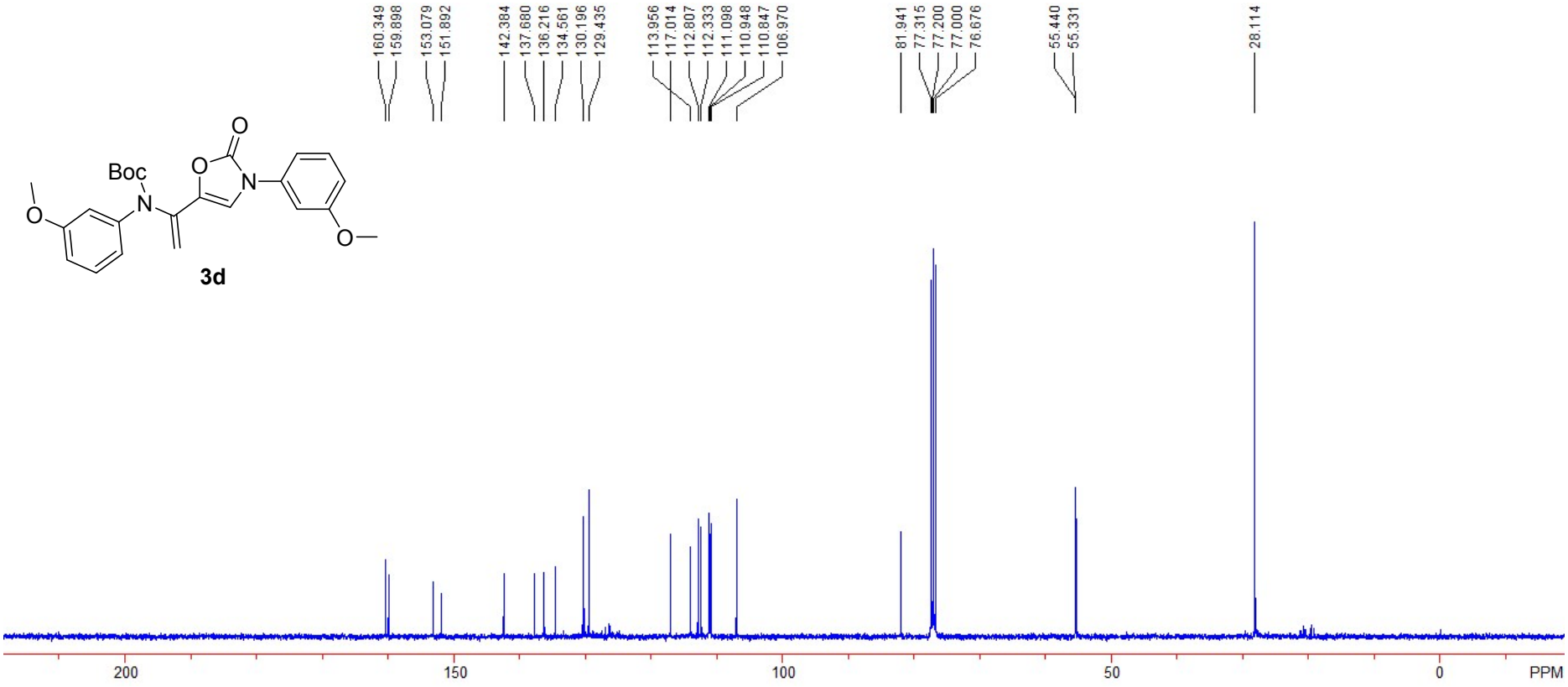
^{13}C NMR (100Hz, $CDCl_3$)



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



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



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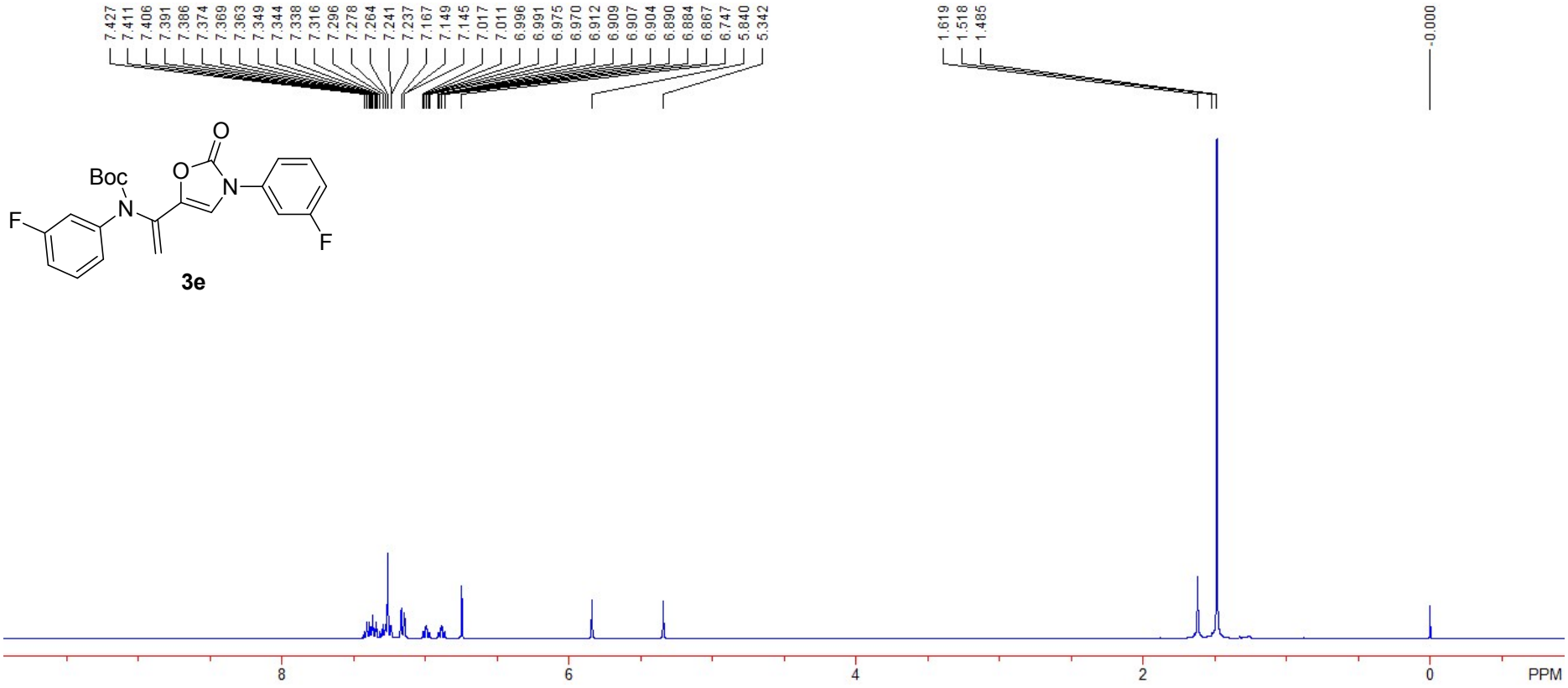
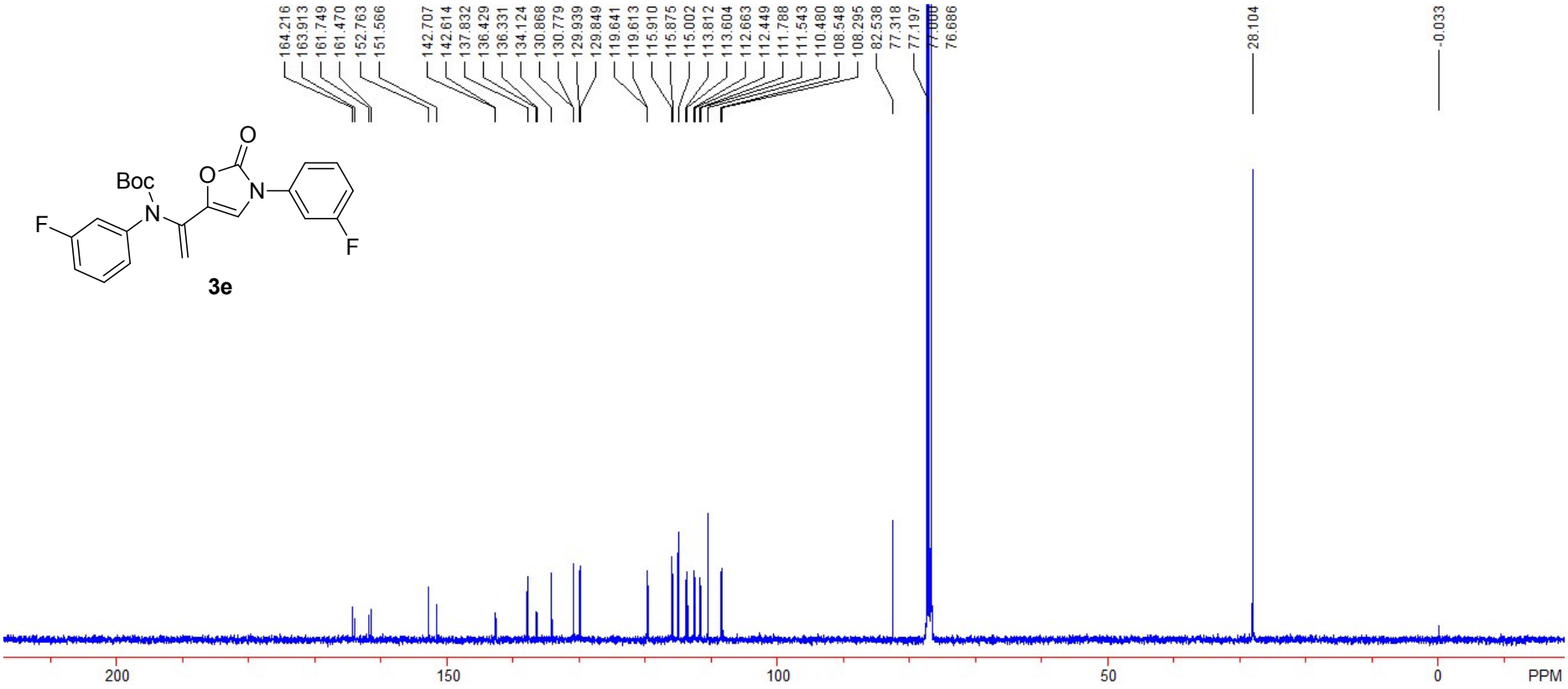
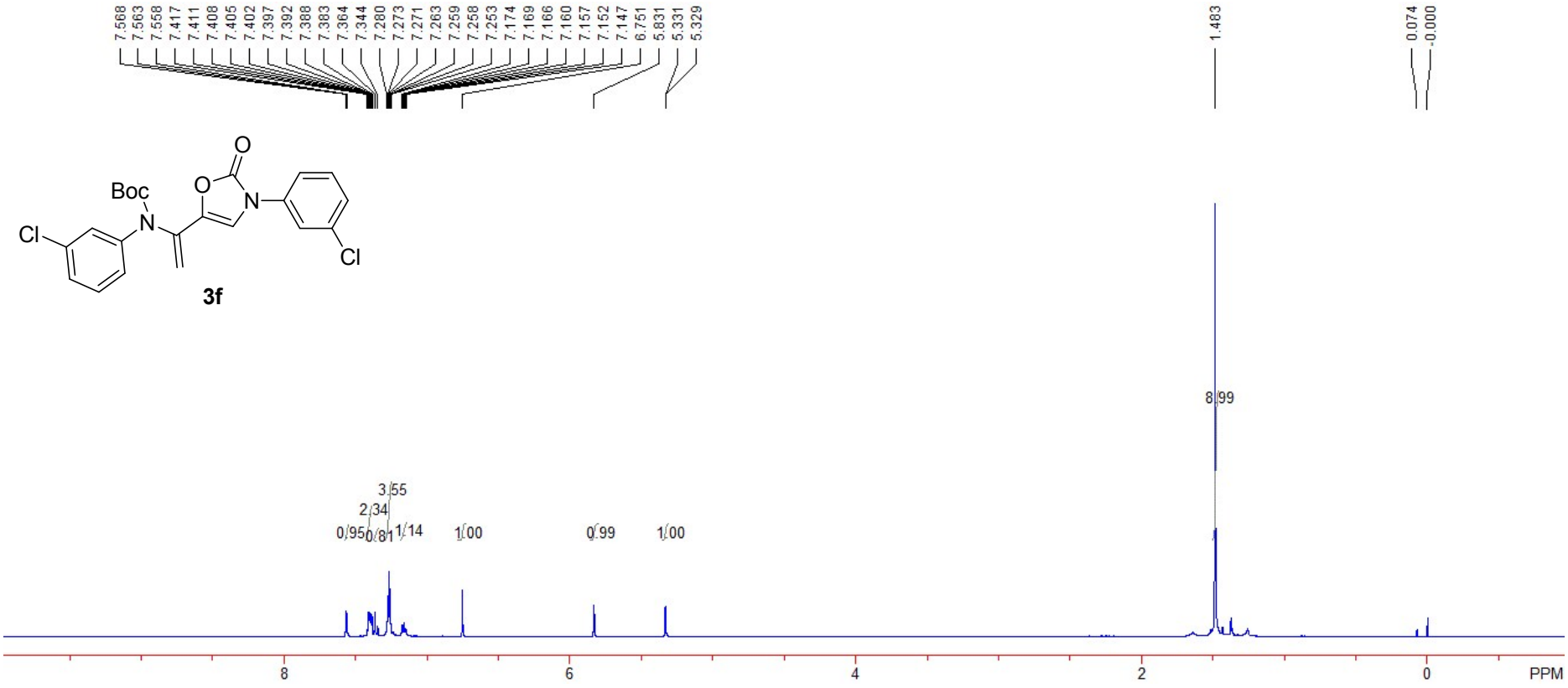


^{13}C NMR (100Hz, $CDCl_3$)

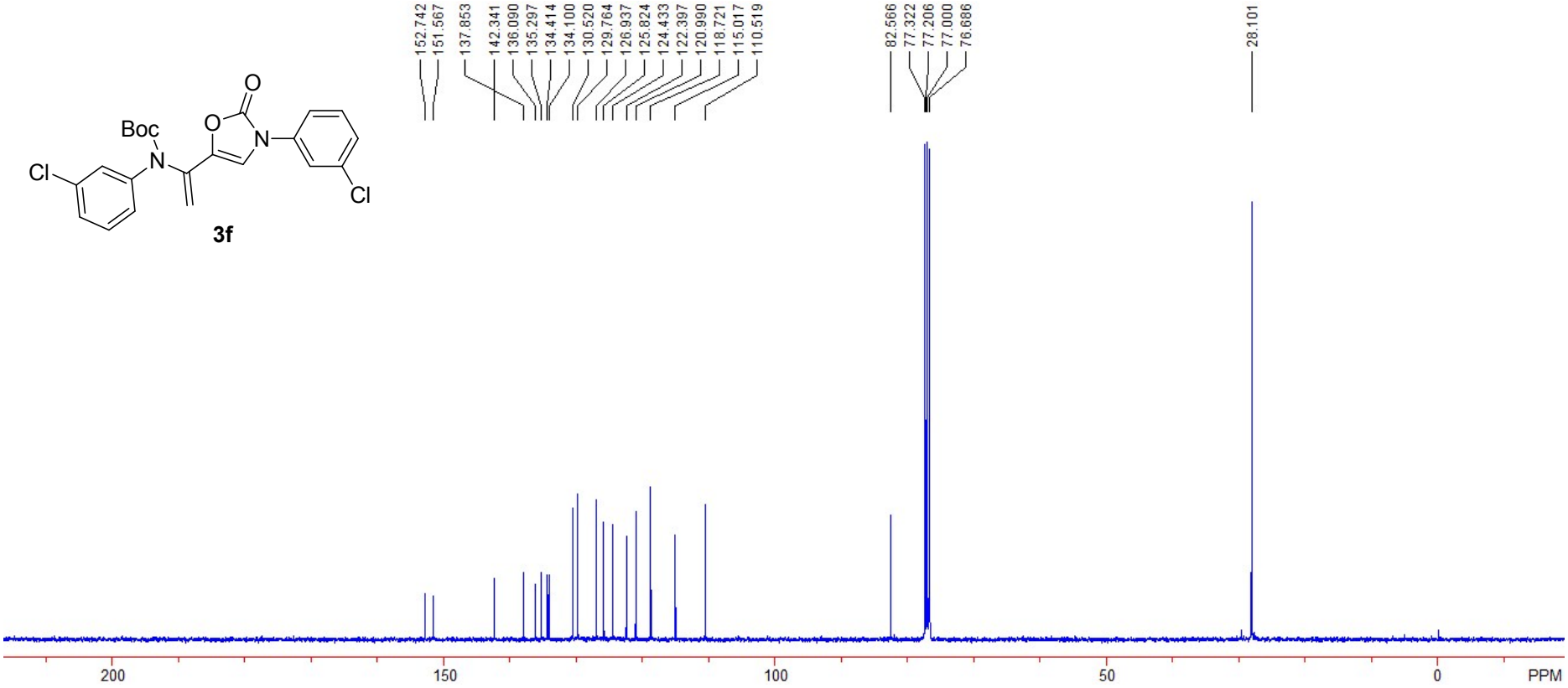


3e

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

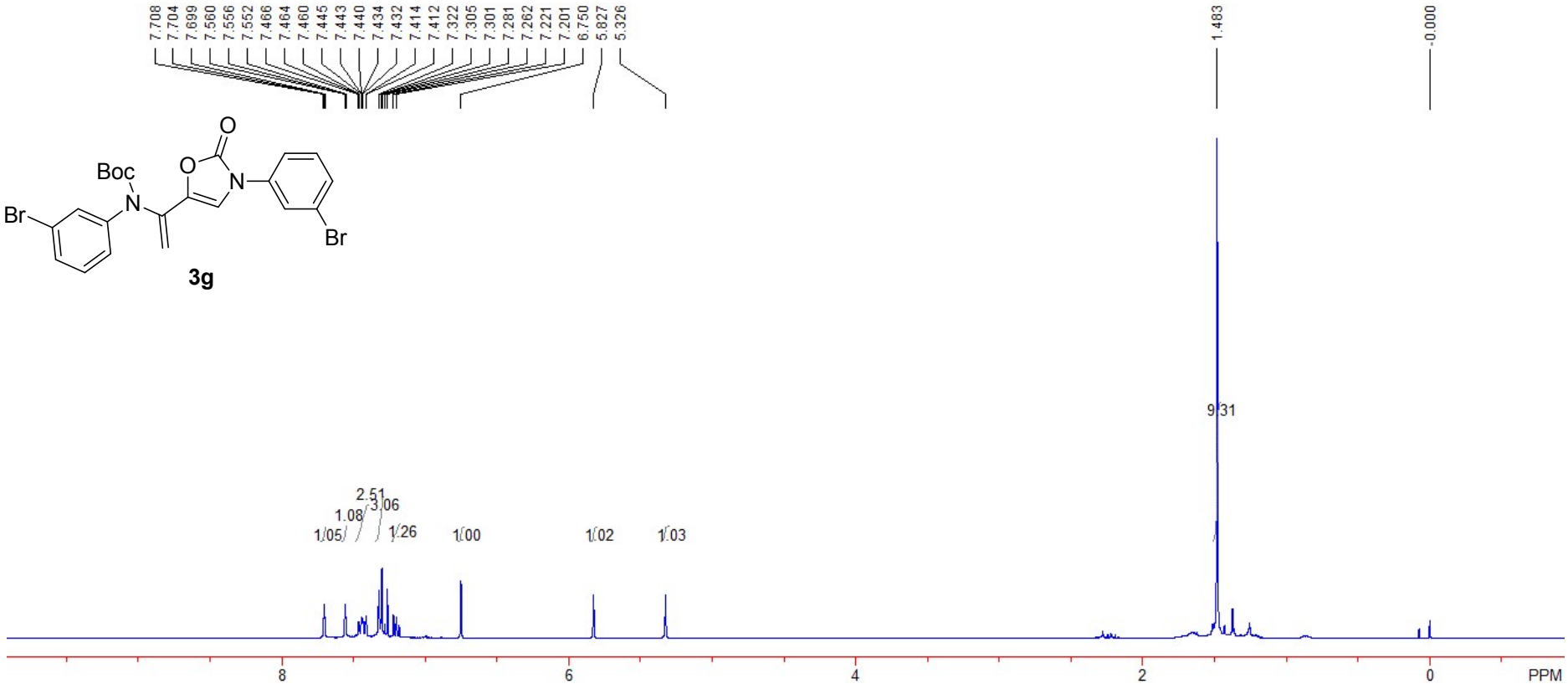


^{13}C NMR (100Hz, $CDCl_3$)

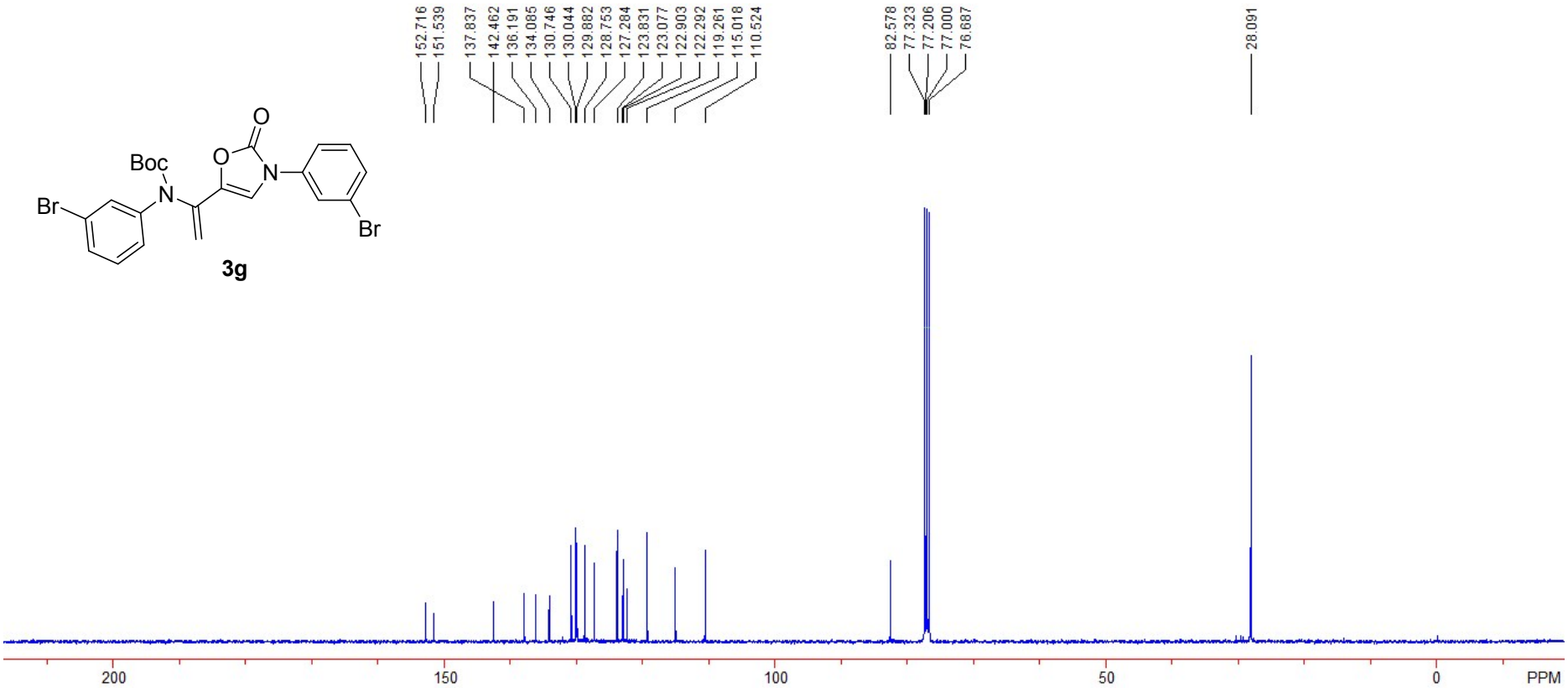


3f

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



^{13}C NMR (100Hz, $CDCl_3$)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151.539
137.837
142.462
136.191
134.085
130.746
130.044
129.882
128.753
127.284
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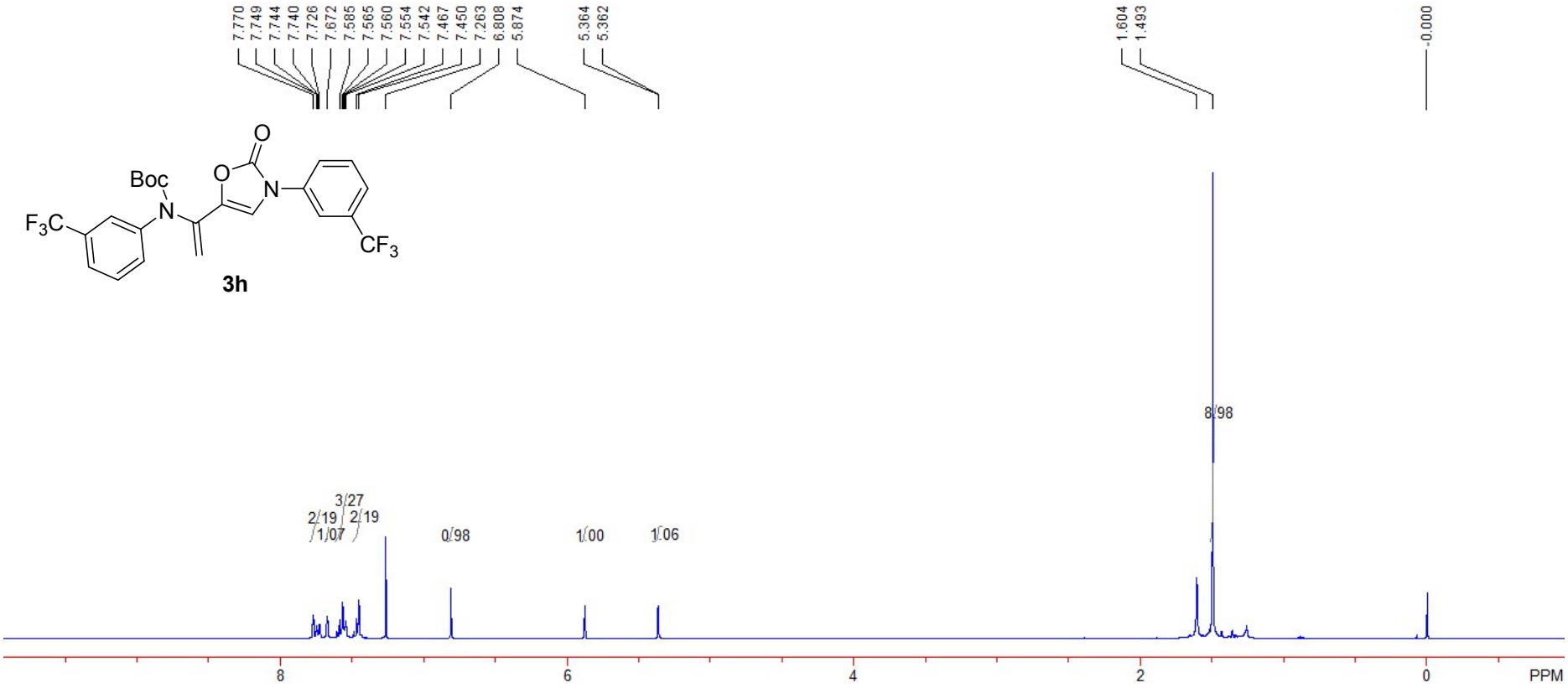
123.077
122.903
122.292
119.261
115.018
110.524
82.578
77.323
77.206
77.000
76.687
28.091
Boc
N
O
O
N
Br
Br
200
150
100
50
0
PPM

3g

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



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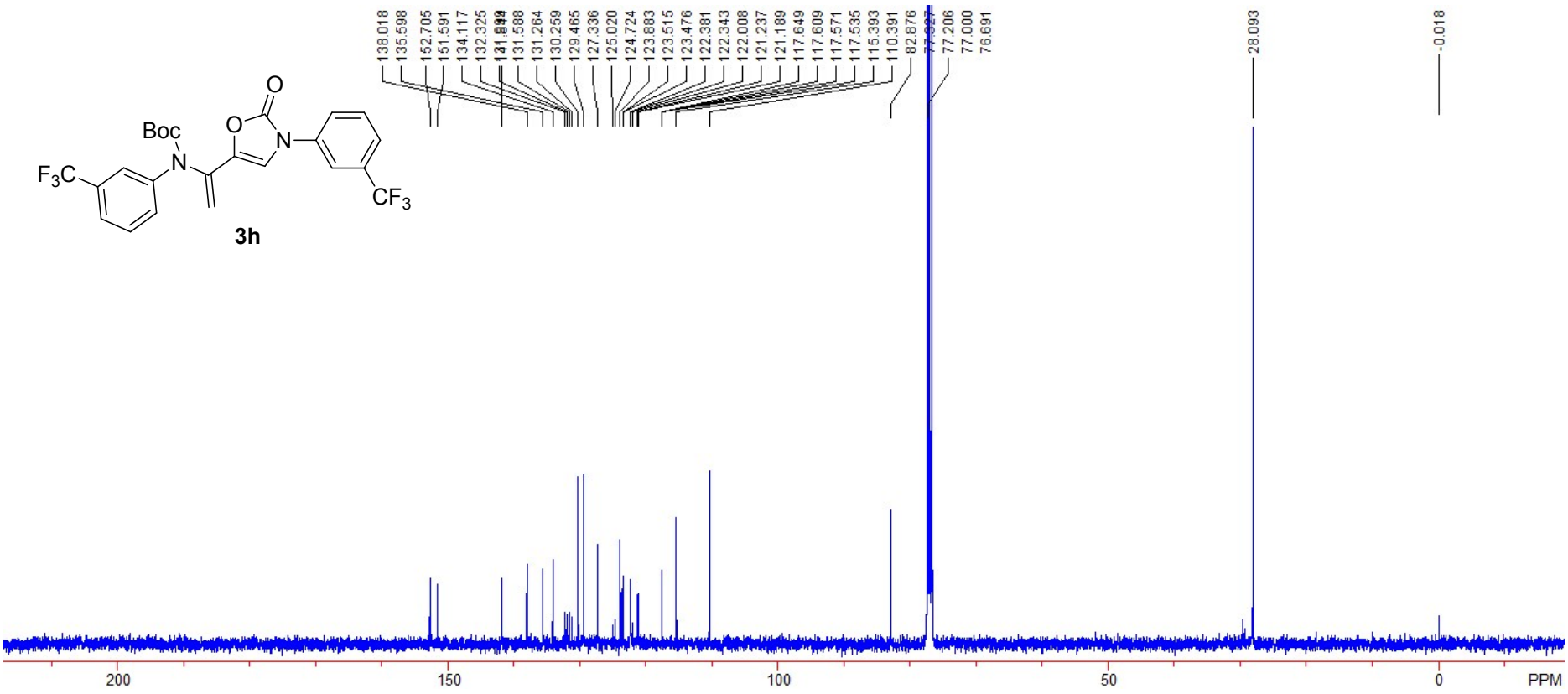
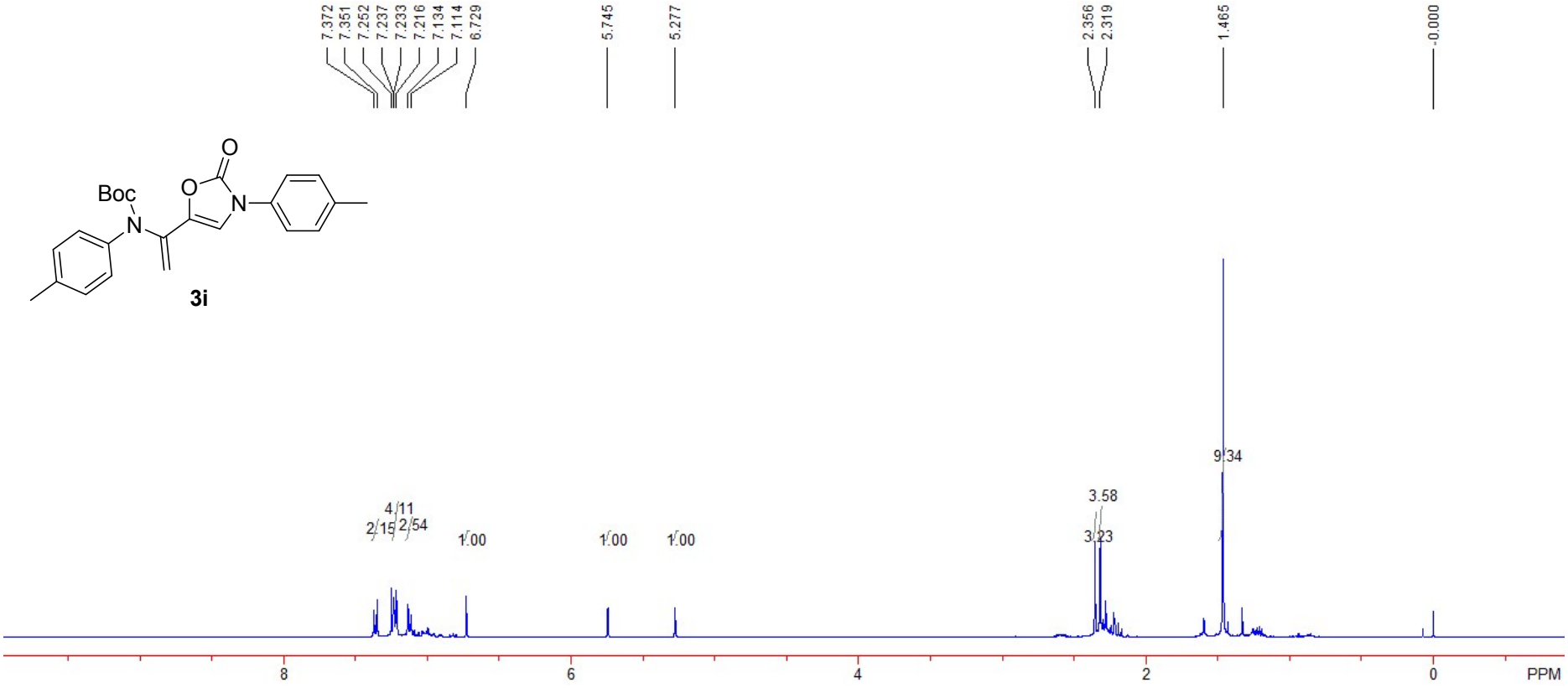


^{1}H NMR (400Hz, $CDCl_3$)



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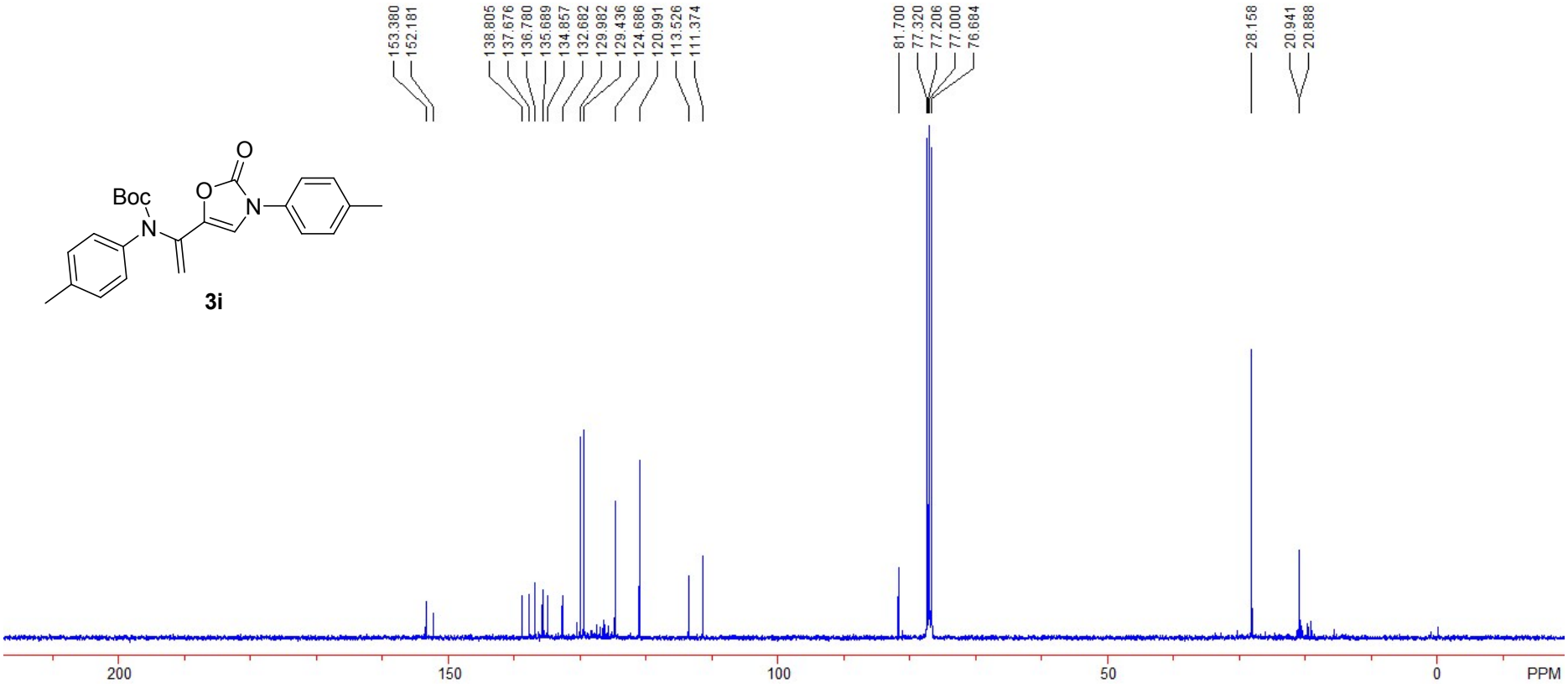
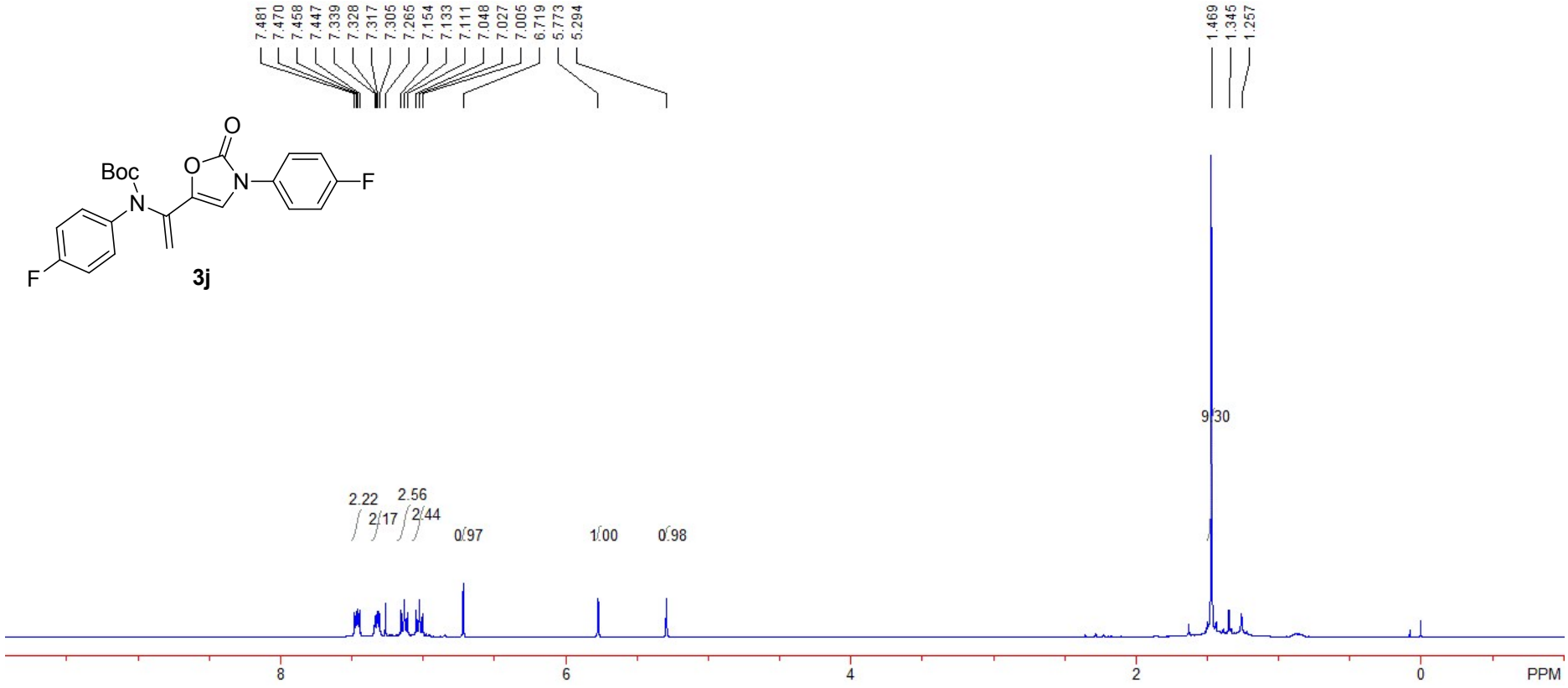
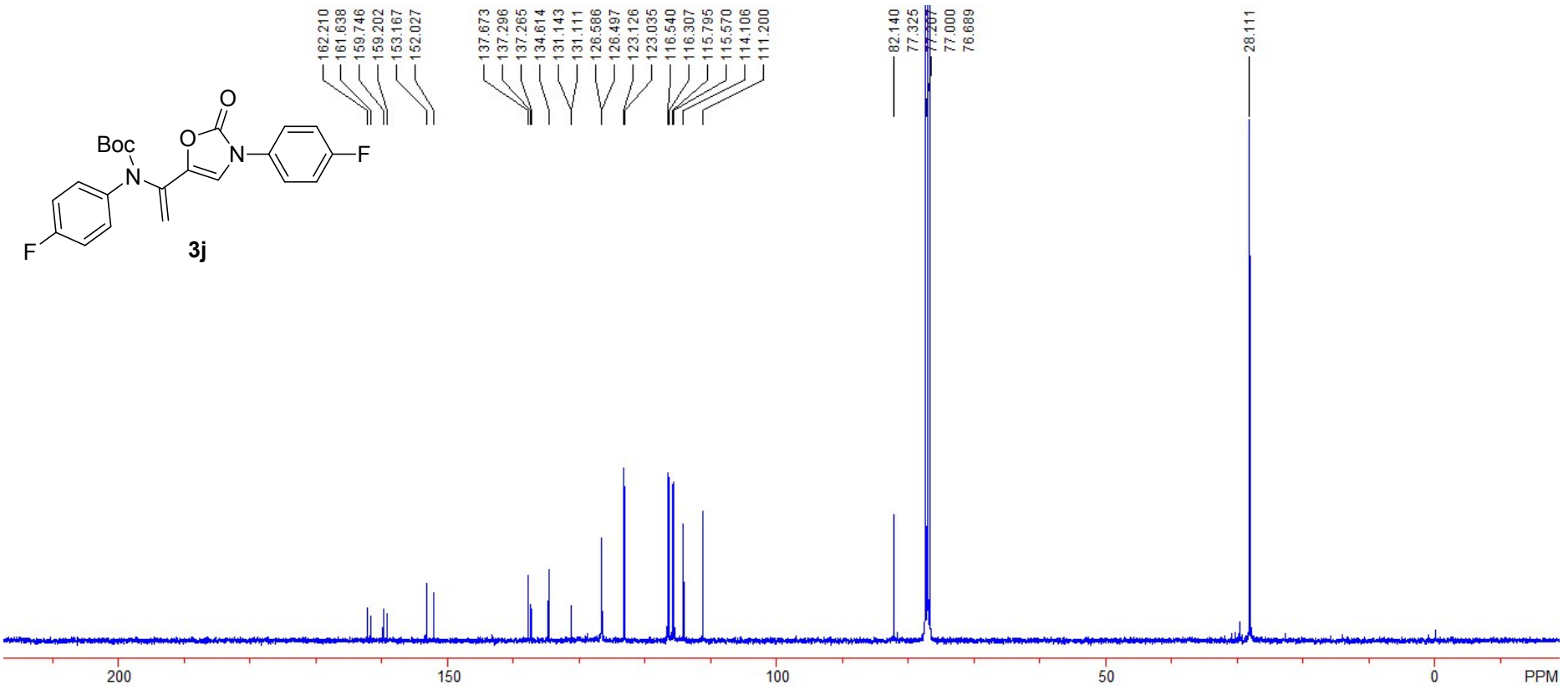


3i

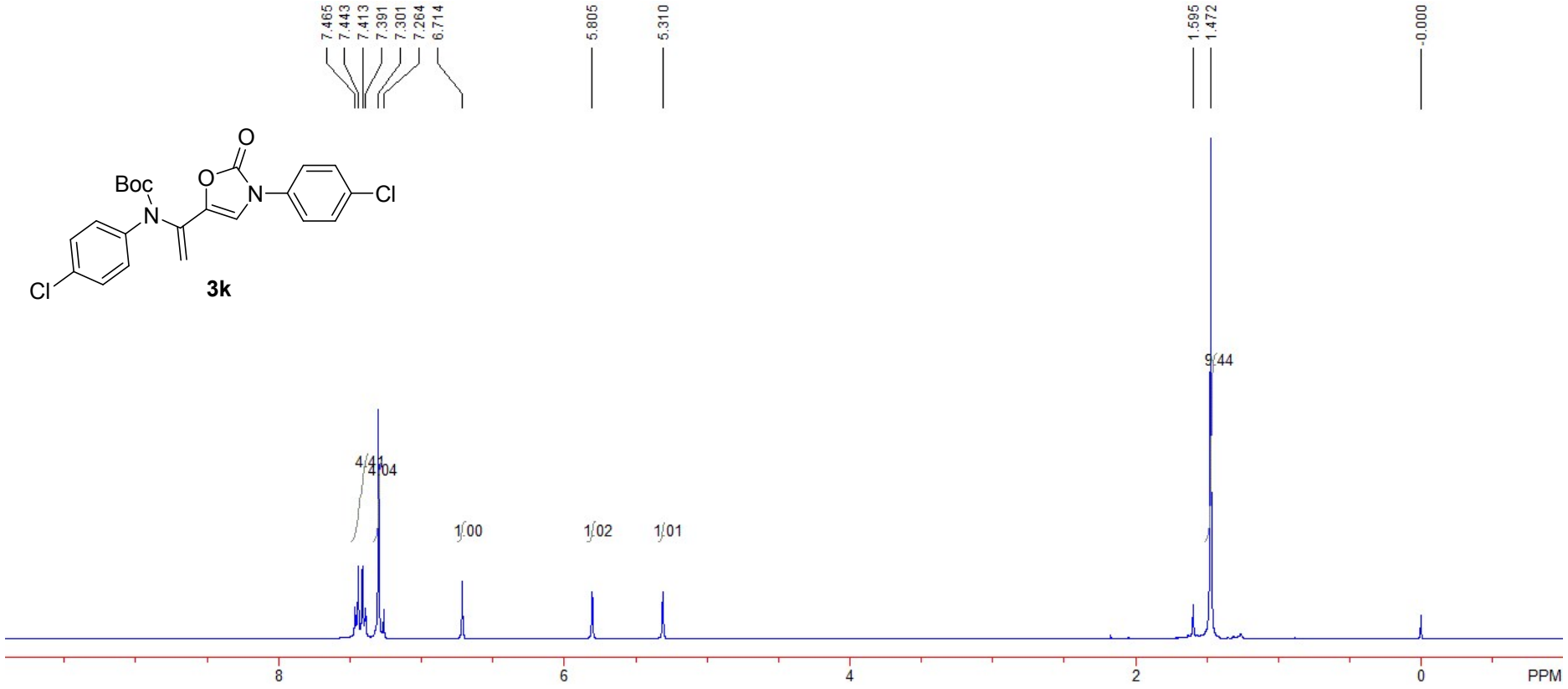
^{1}H NMR (400Hz, $CDCl_3$)



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



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



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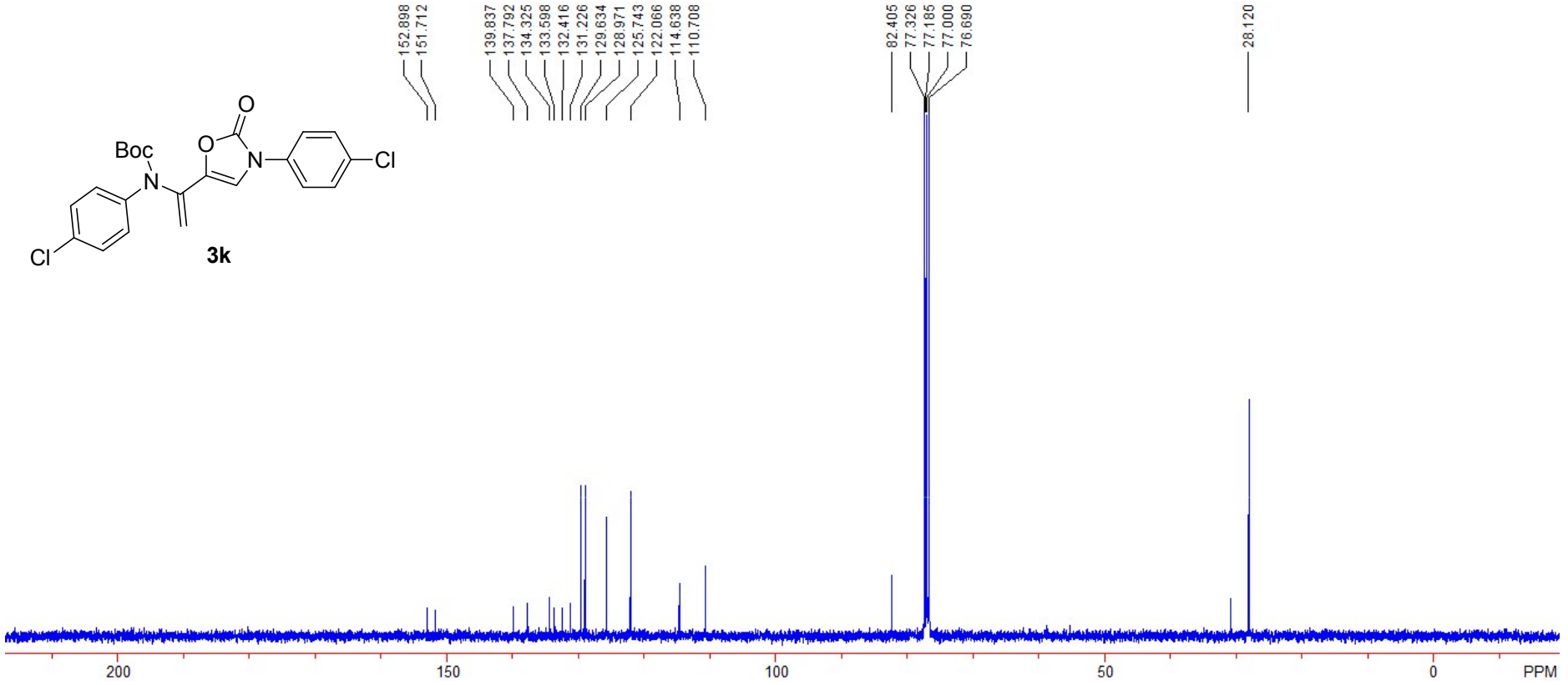

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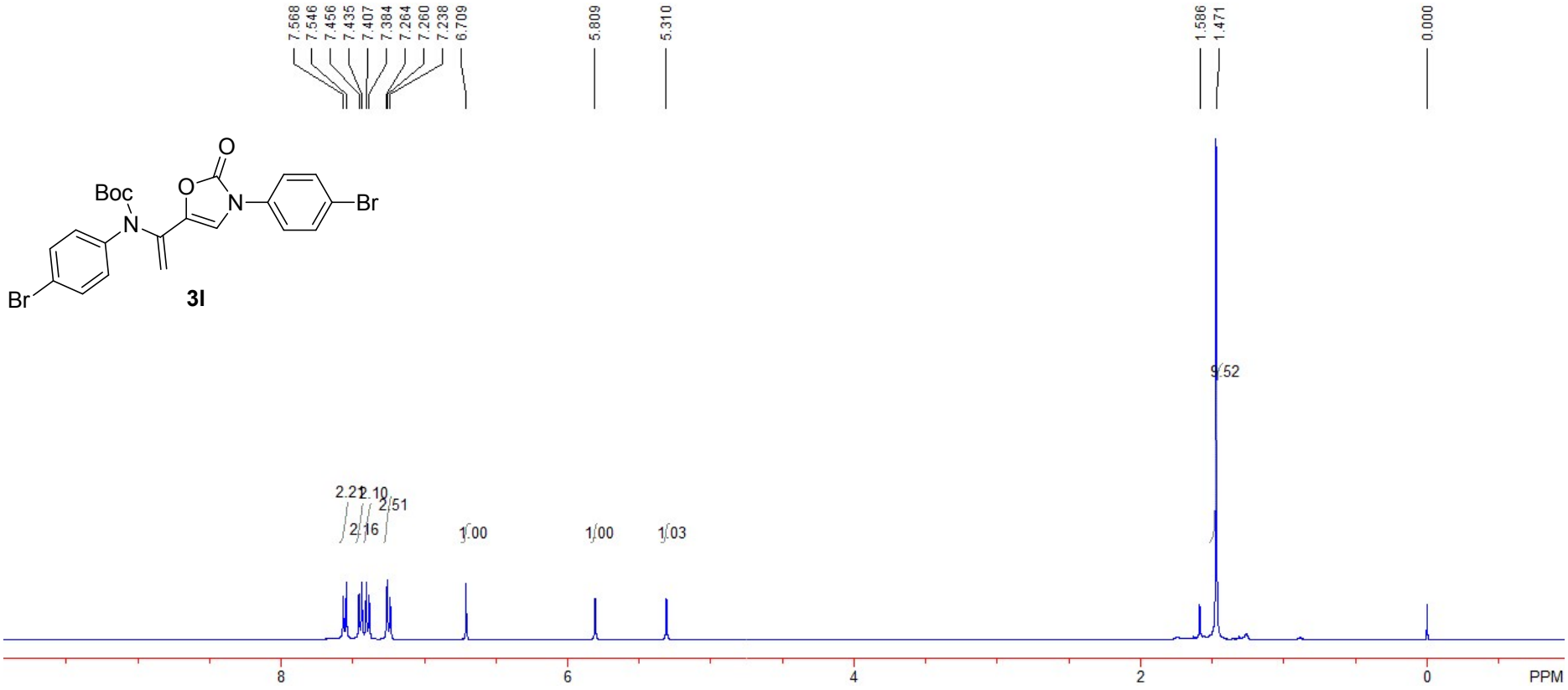
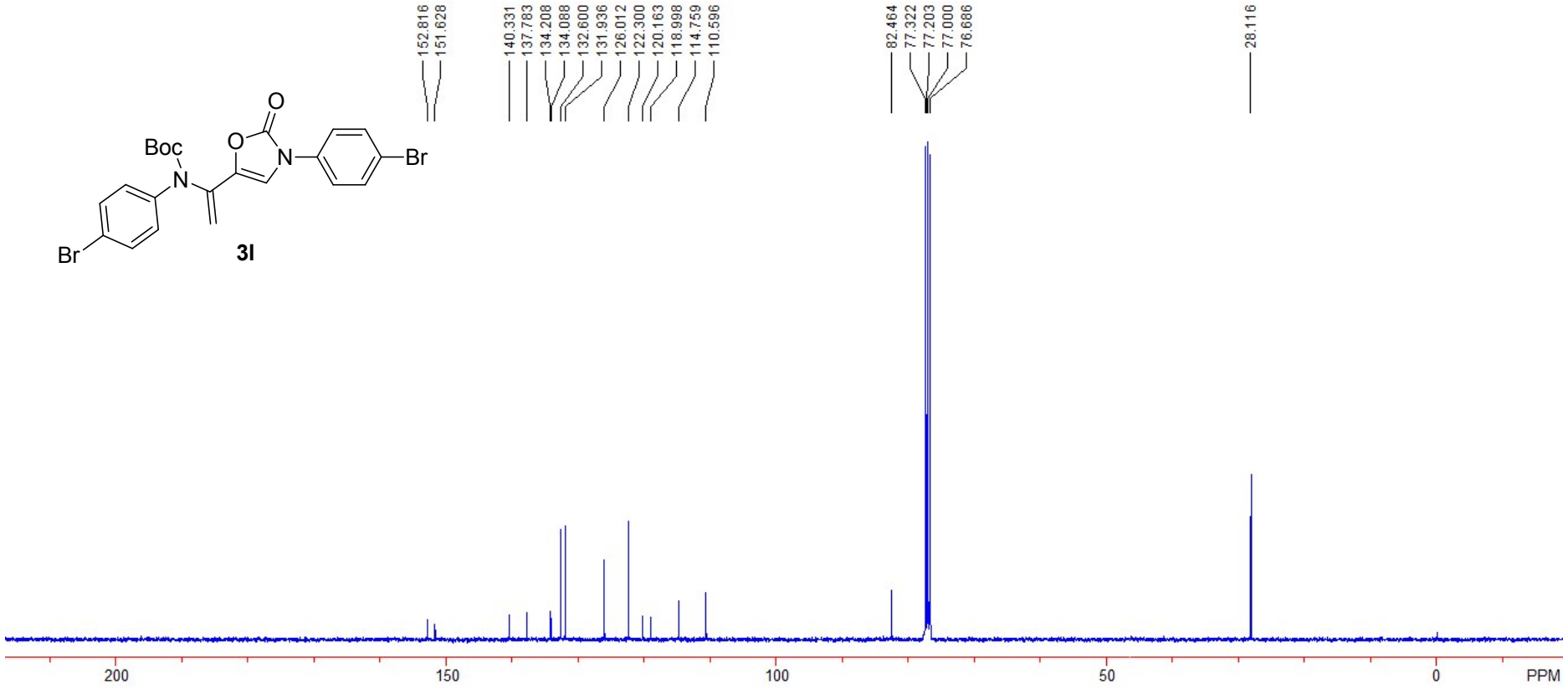
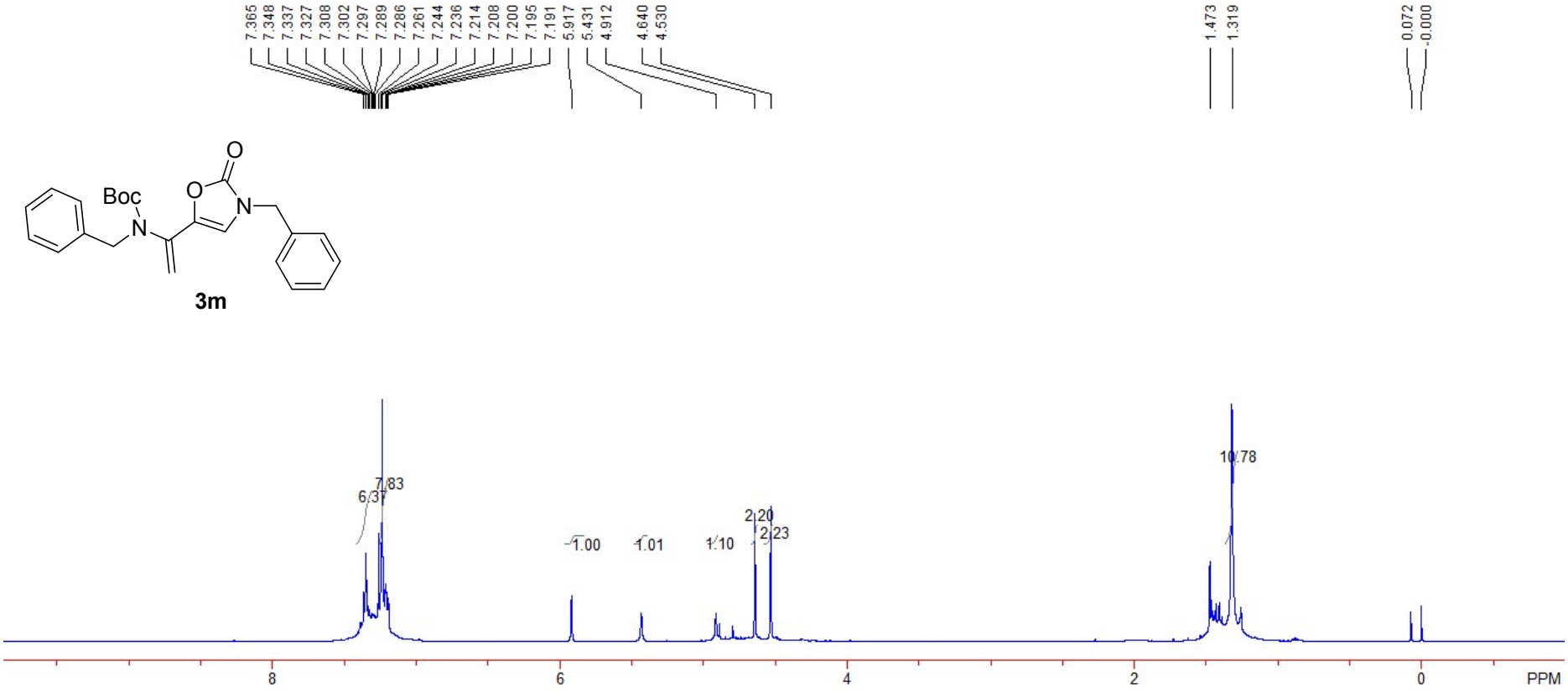


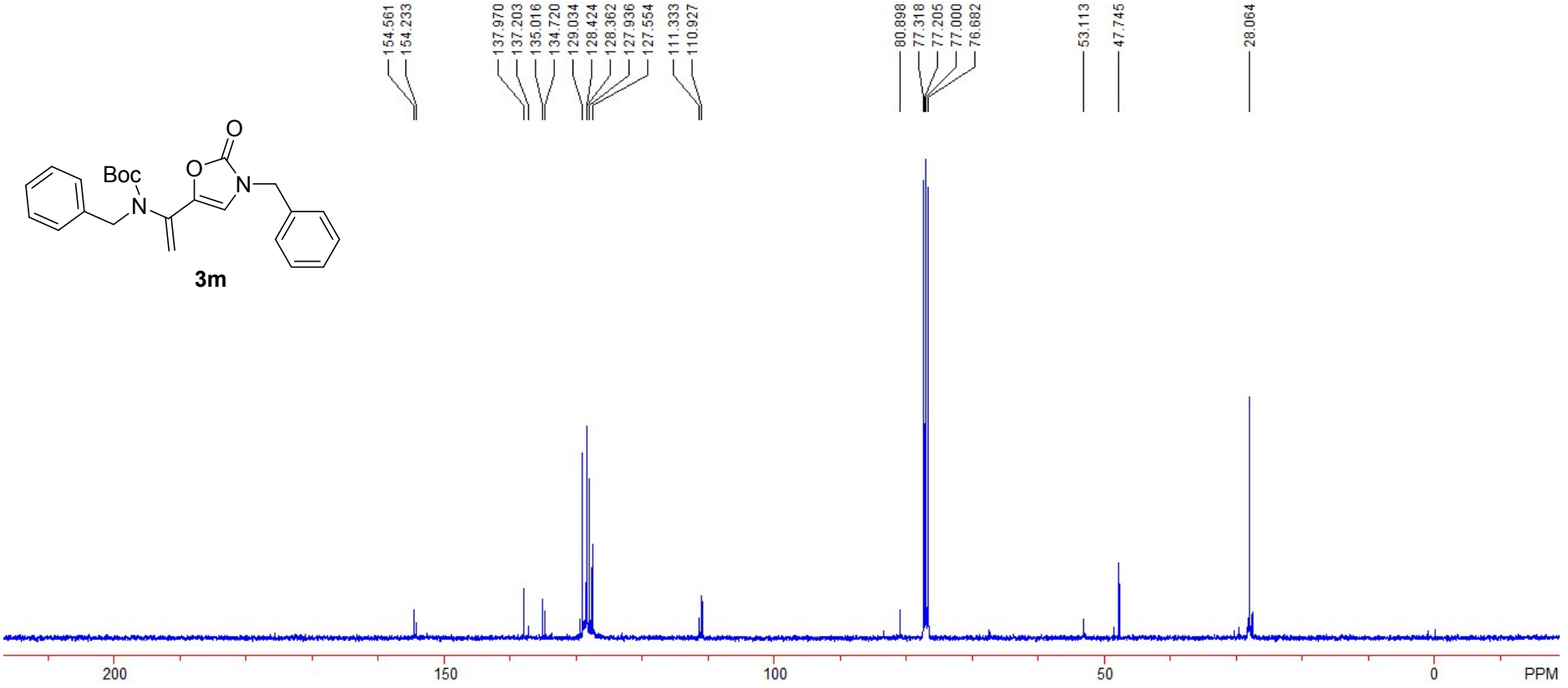
^{13}C NMR (100Hz, $CDCl_3$)



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

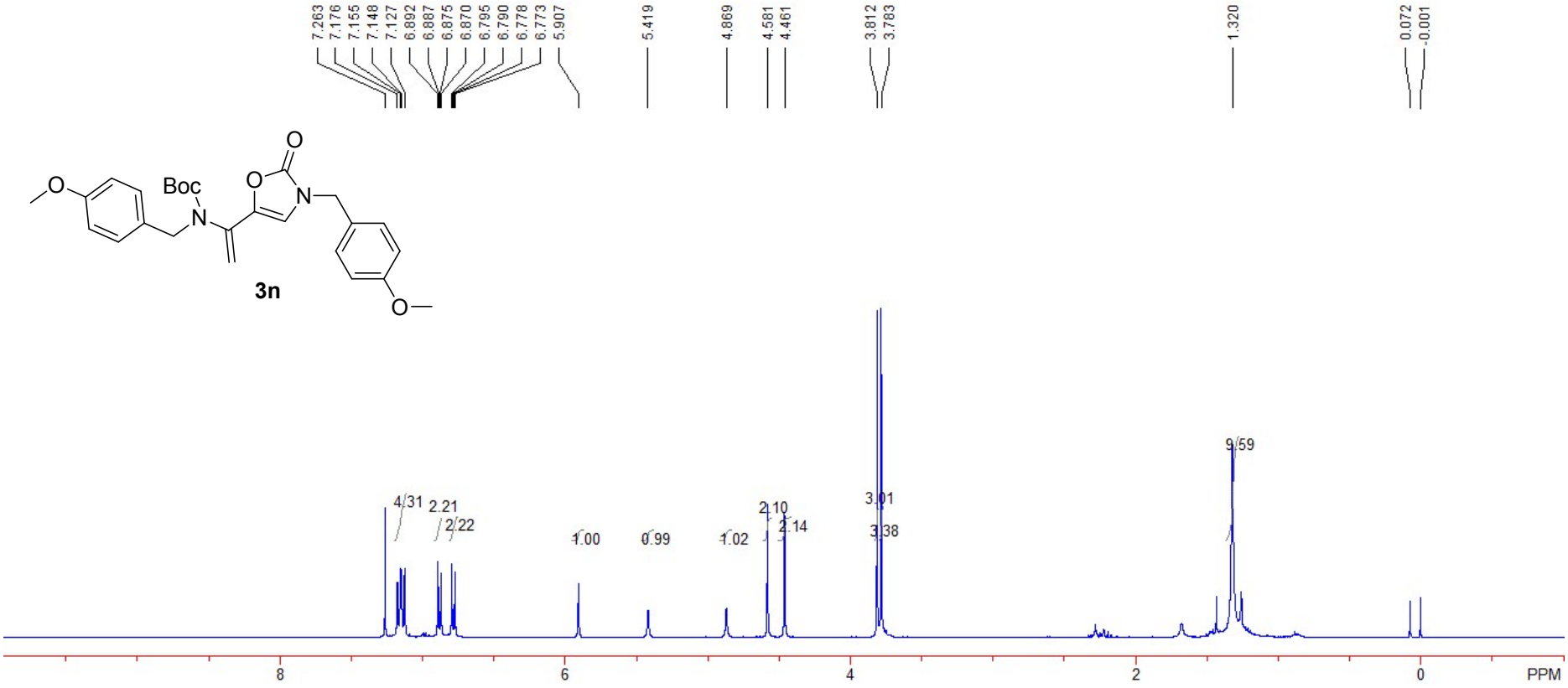


^{13}C NMR (100Hz, $CDCl_3$)

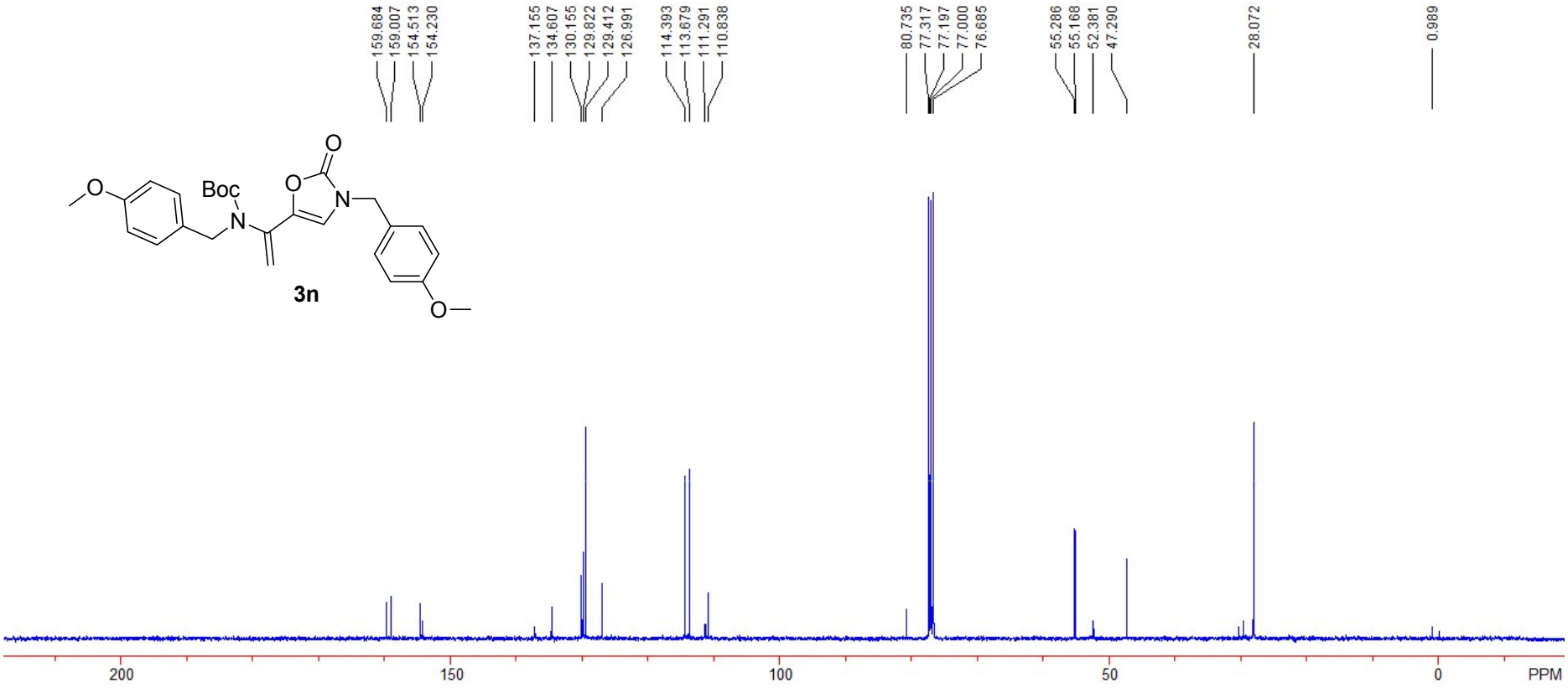


3m

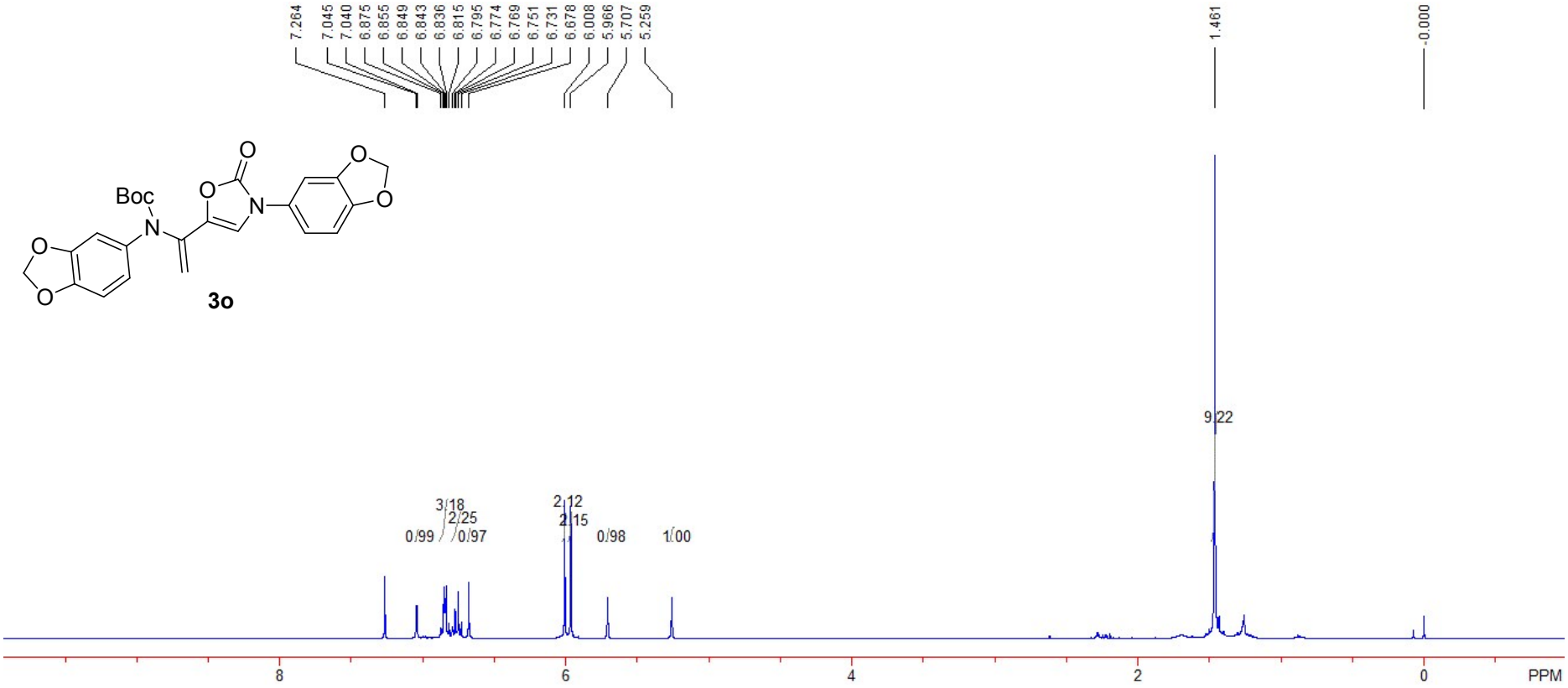
^{1}H NMR (400Hz, $CDCl_3$)



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



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



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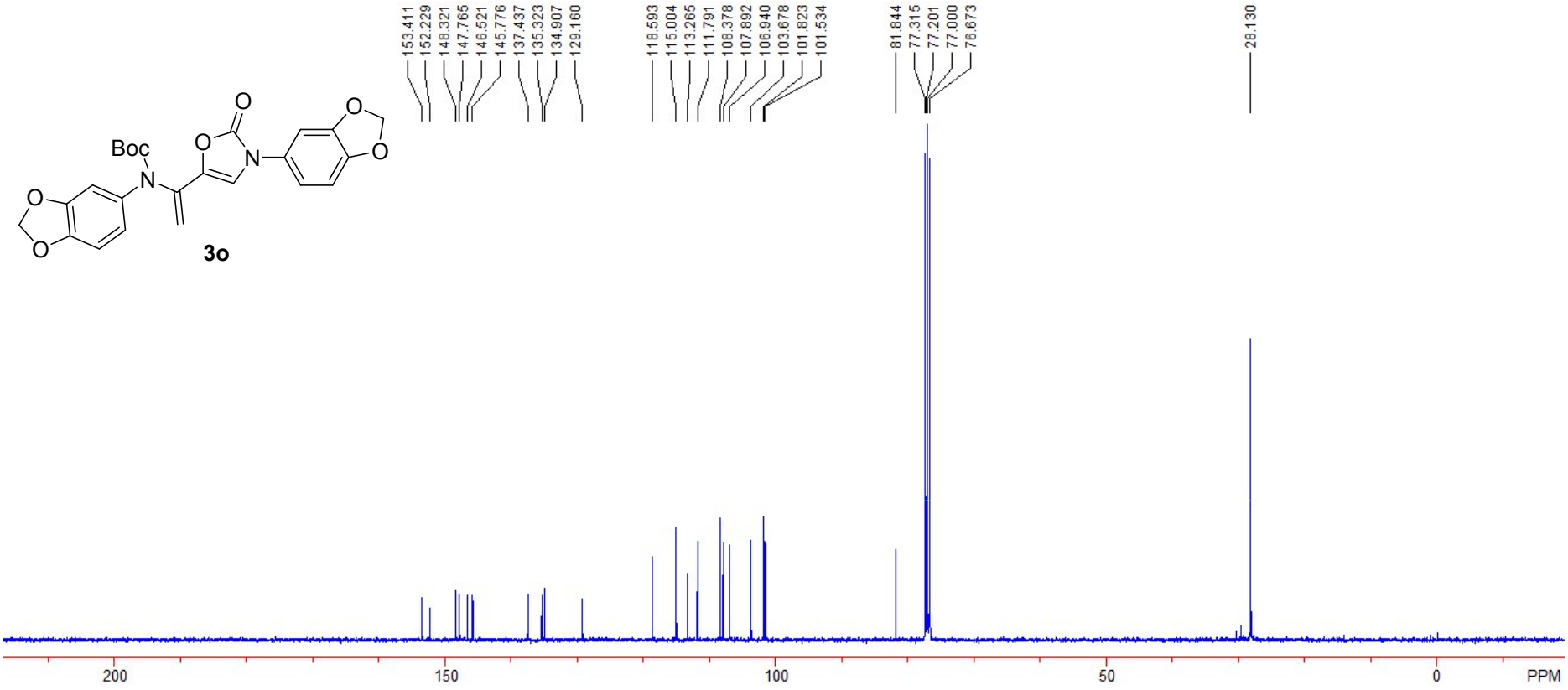

3o

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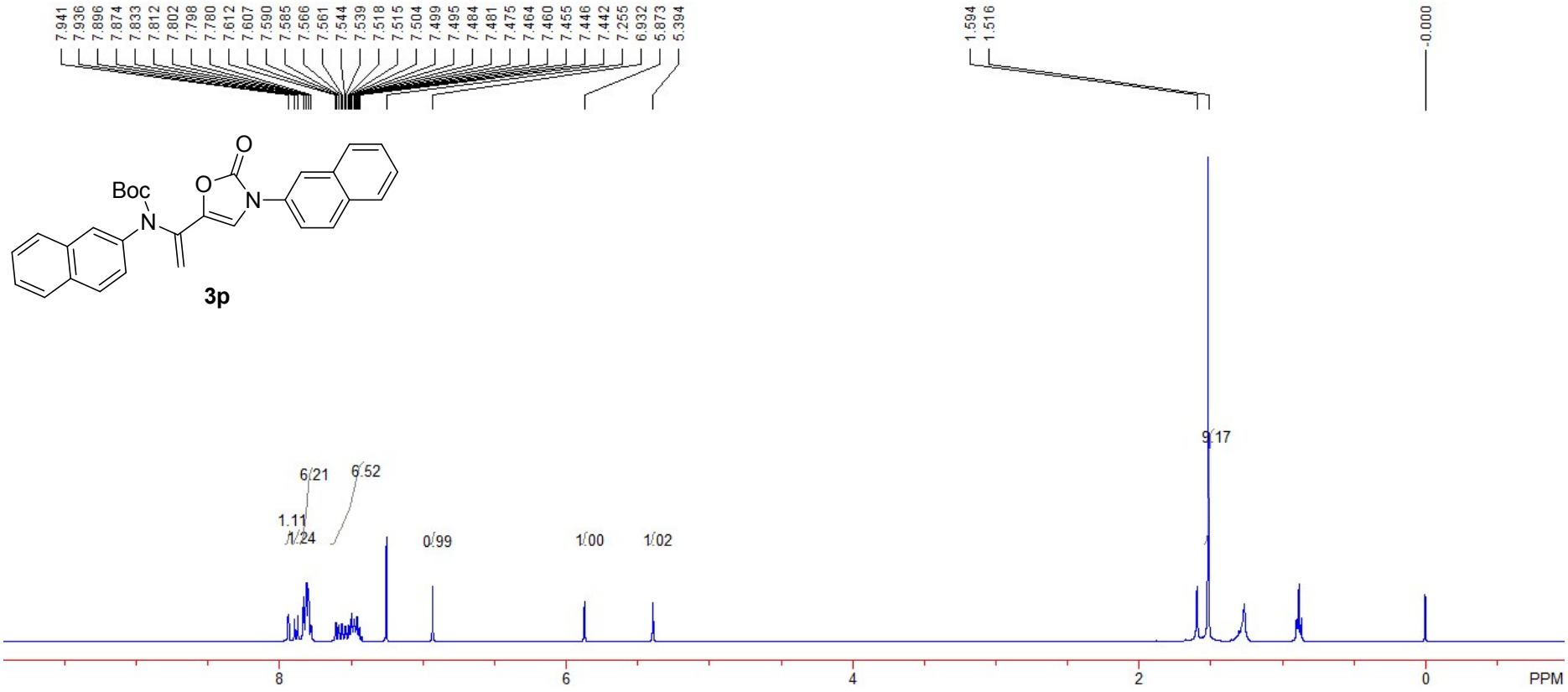
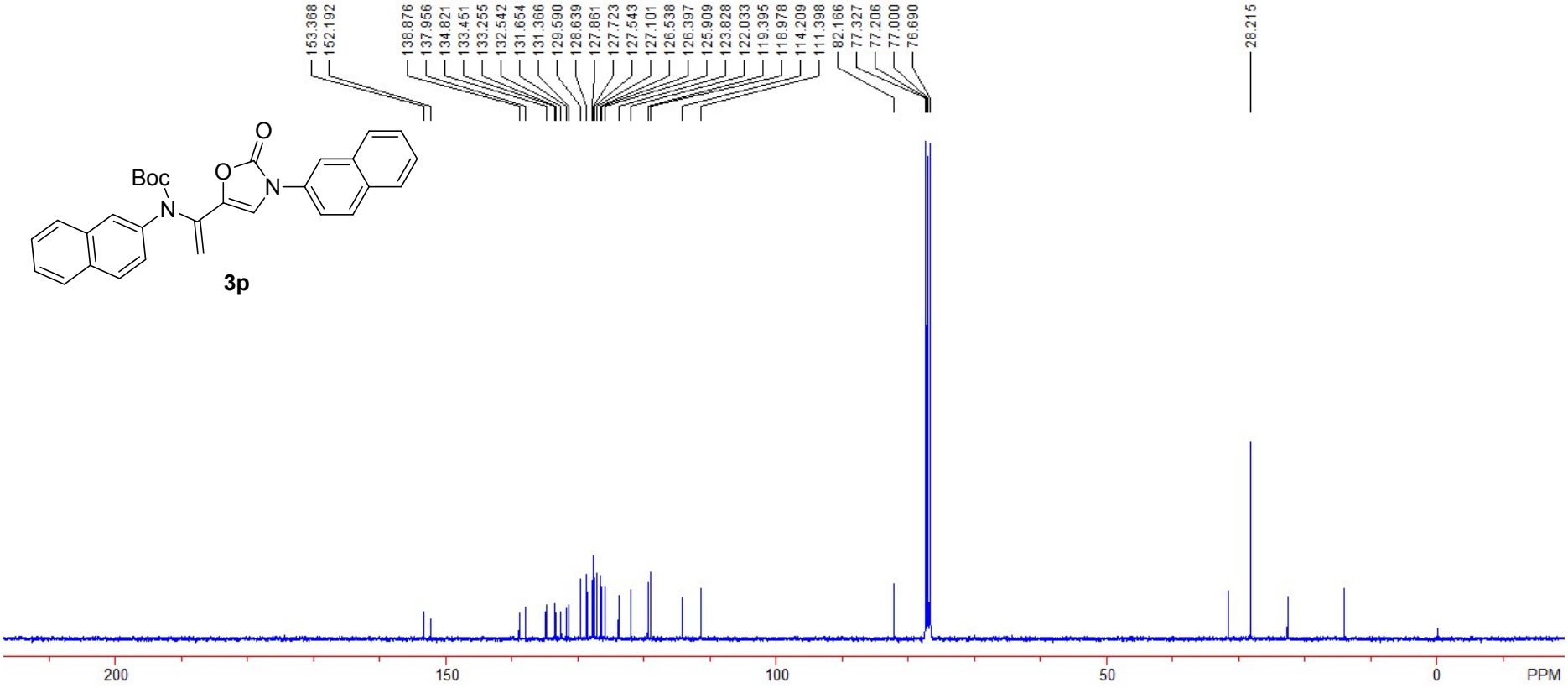
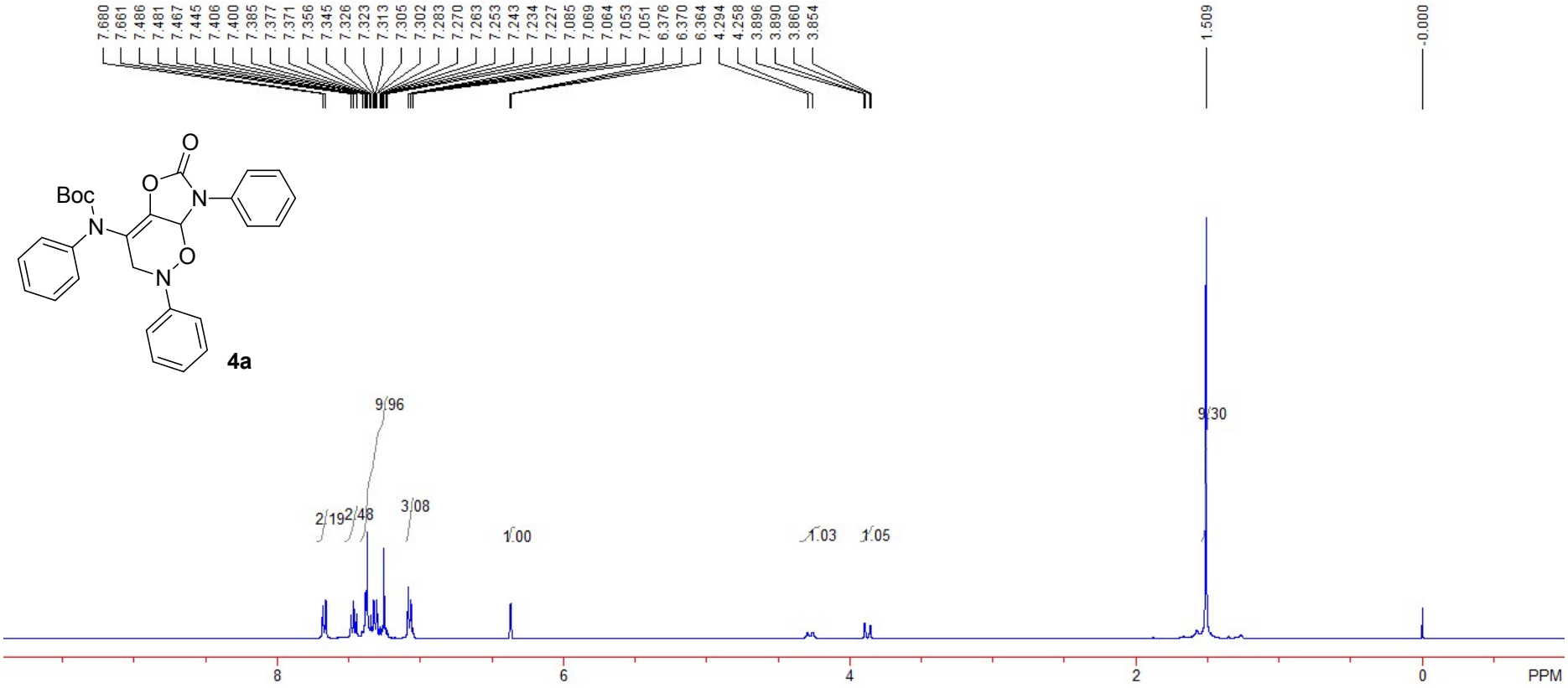


^{13}C NMR (100Hz, $CDCl_3$)



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



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