

Synthesis of a new class of naphthoquinone glycoconjugates and evaluation of their potential as antitumoral agents

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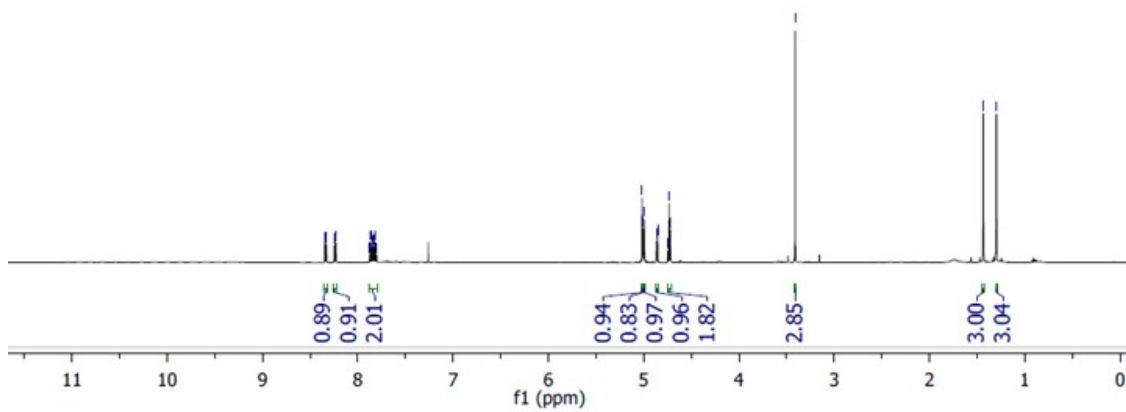
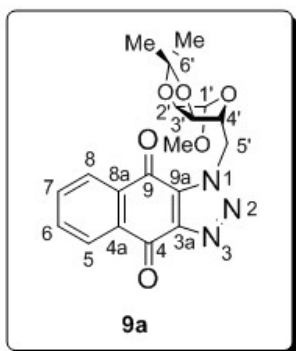
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8.346
8.344
8.331
8.329
8.246
8.244
8.231
8.228
7.877
7.874
7.862
7.859
7.847
7.844
7.833
7.830
7.818
7.815
7.803
7.801
5.016
5.008
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4.993
4.865
4.853
4.745
4.731
4.719
3.410
1.435
1.297

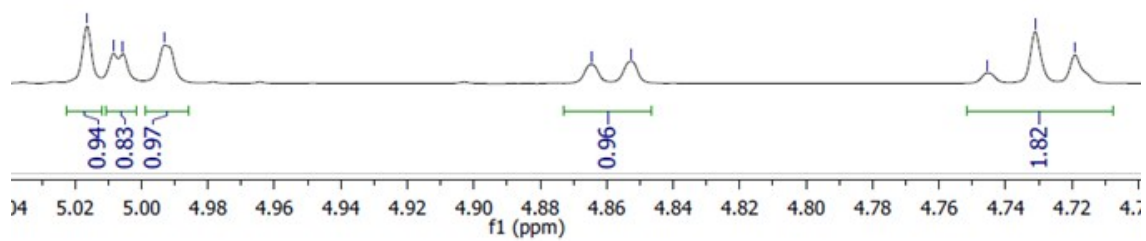
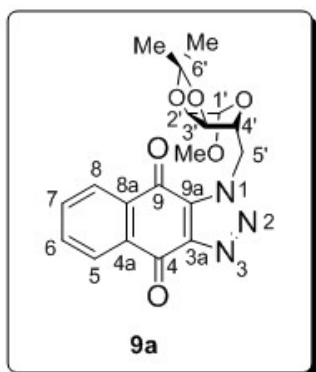


¹H NMR spectrum of derivative **9a** (CDCl₃, 500 MHz).

5.016
5.008
5.006
4.993

4.865
4.853

4.745
4.731
4.719

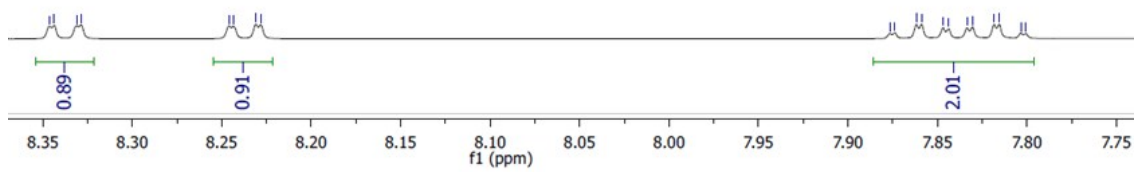
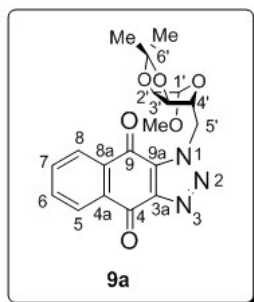


Expansion of the ^1H NMR spectrum of derivative **9a** (CDCl_3 , 500 MHz).

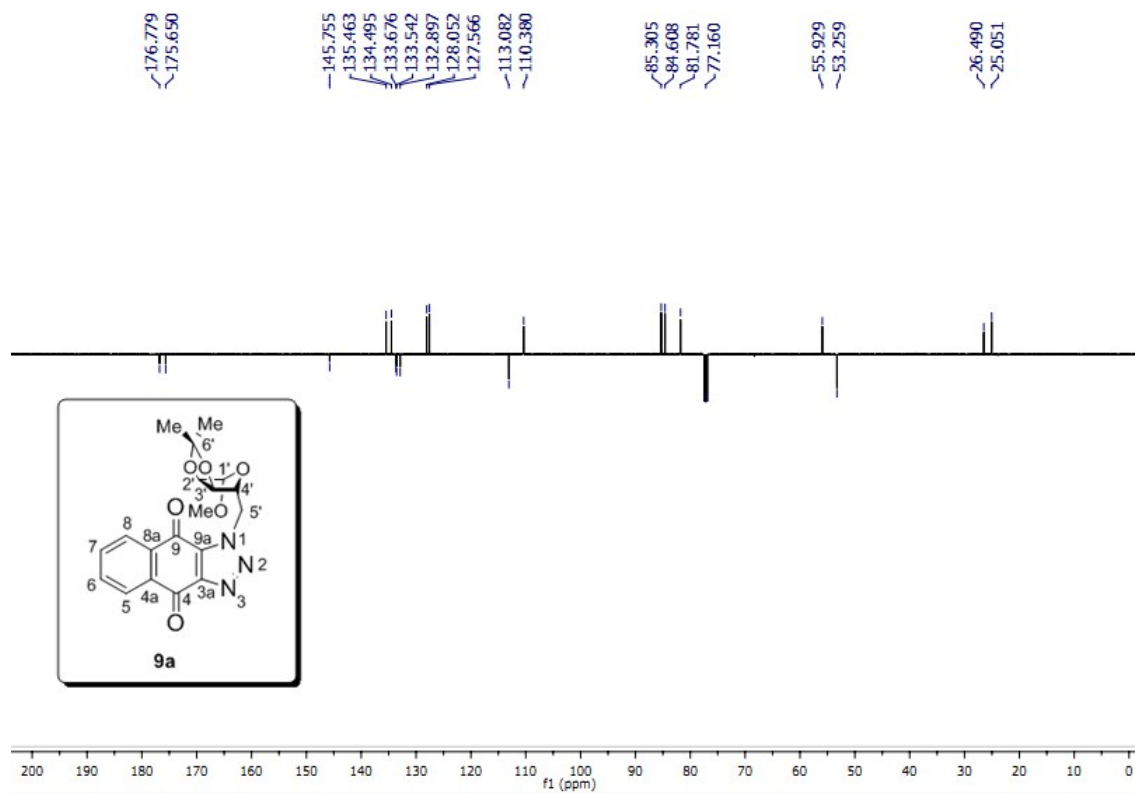
8.346
8.344
8.331
8.329

8.246
8.244
8.231
8.228

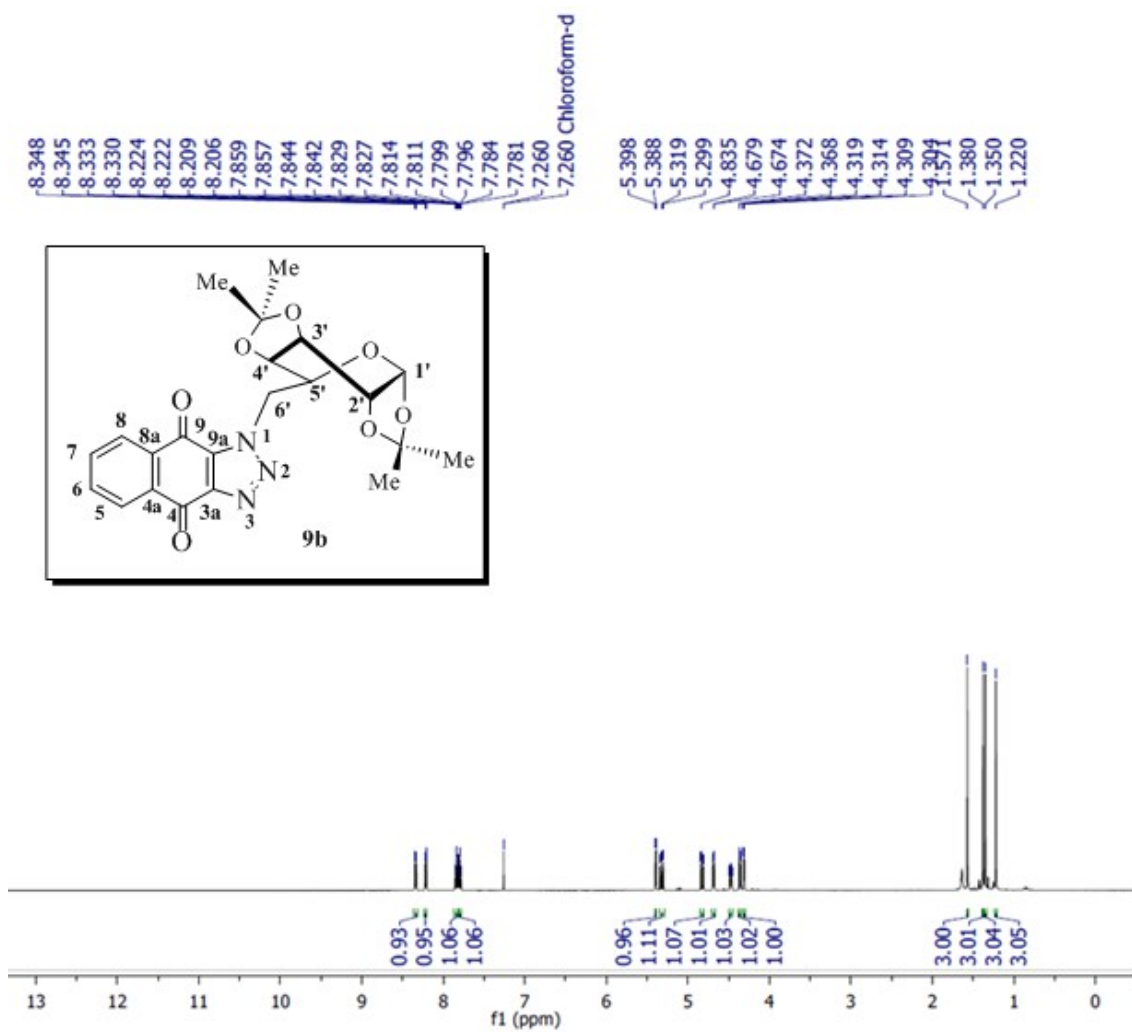
7.877
7.874
7.862
7.859
7.847
7.844
7.833
7.830
7.818
7.815
7.803
7.801



Expansion of the ^1H NMR spectrum of derivative **9a** (CDCl_3 , 500 MHz).



^{13}C / APT NMR spectrum of derivative **9a** (CDCl₃, 125 MHz).



¹H NMR spectrum of derivative **9b** (CDCl₃, 300 MHz).

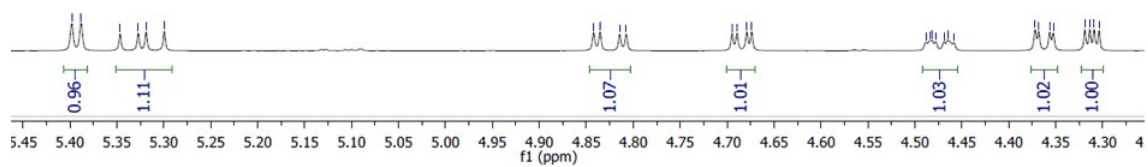
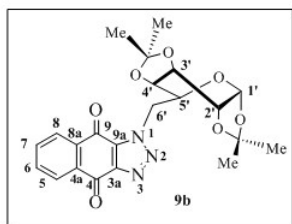
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5.388
5.346
5.327
5.319
5.299

4.842
4.835
4.814
4.808

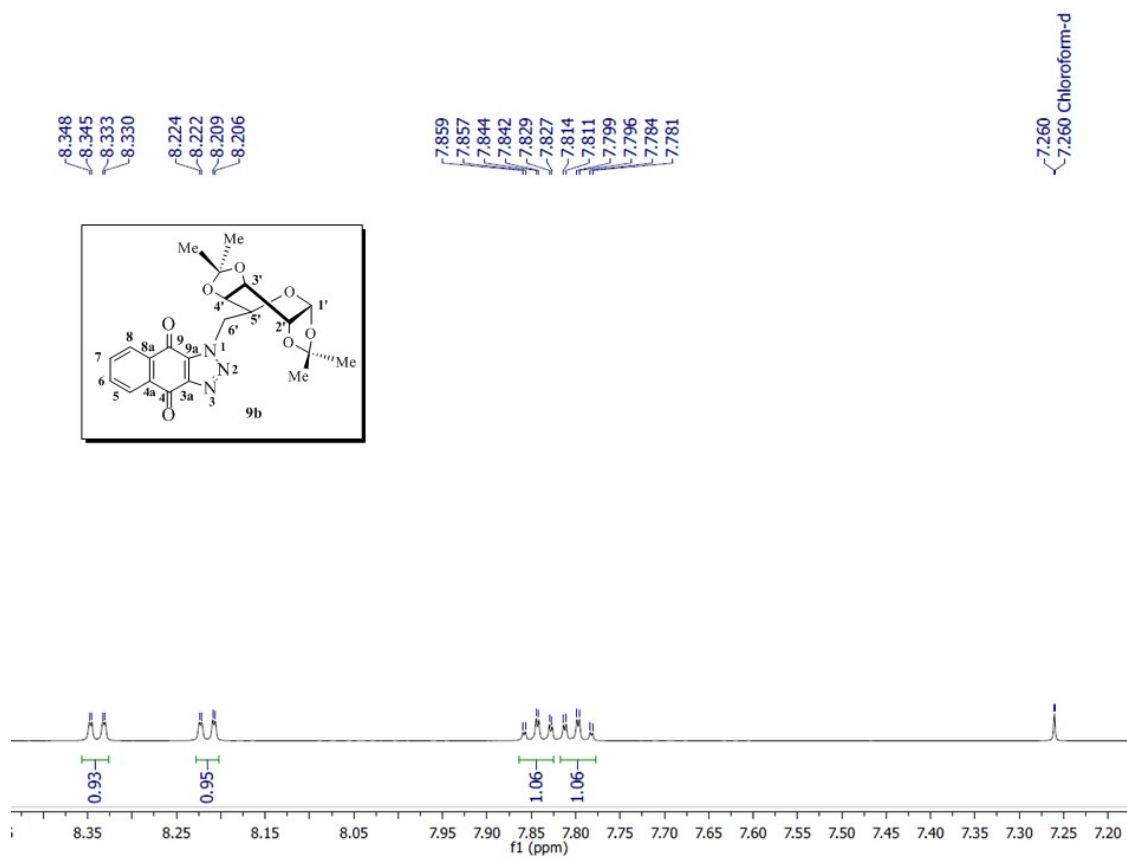
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4.689
4.679
4.674

4.488
4.484
4.482
4.478
4.469
4.465
4.459

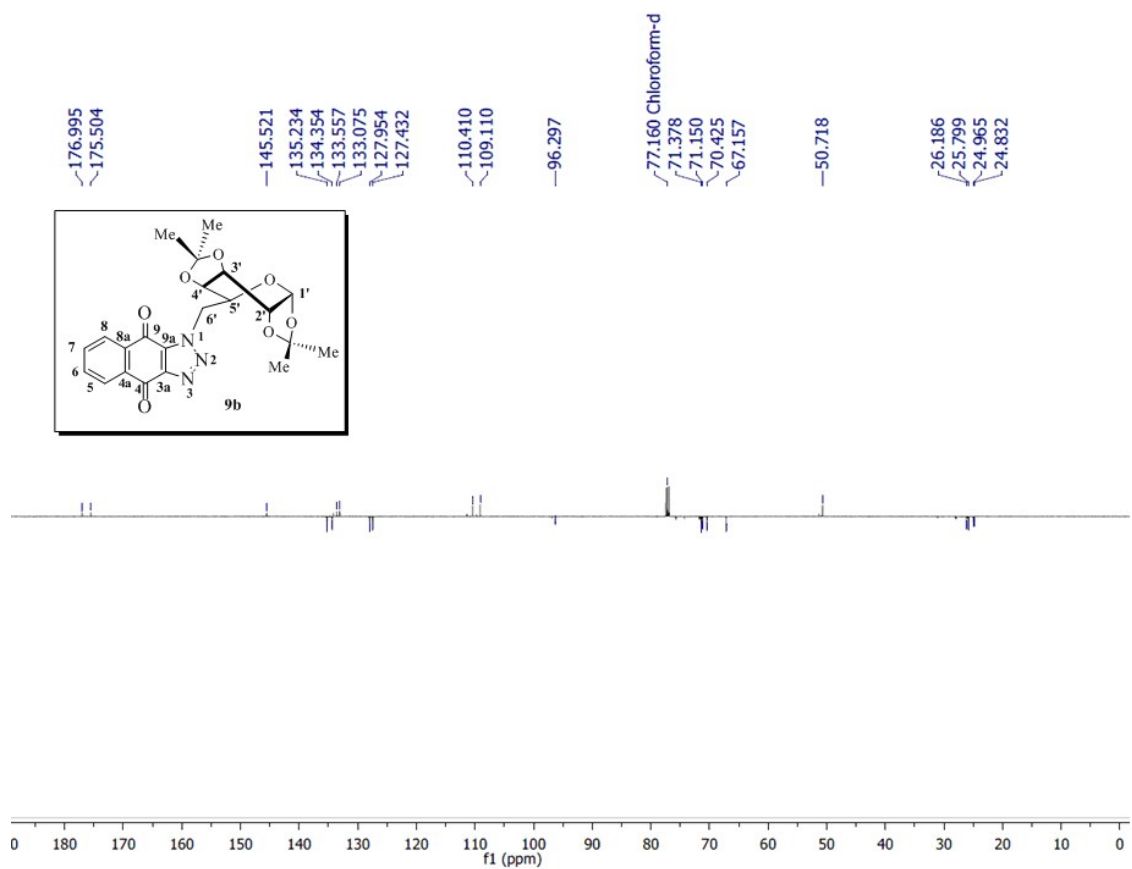
4.372
4.368
4.356
4.319
4.314
4.309



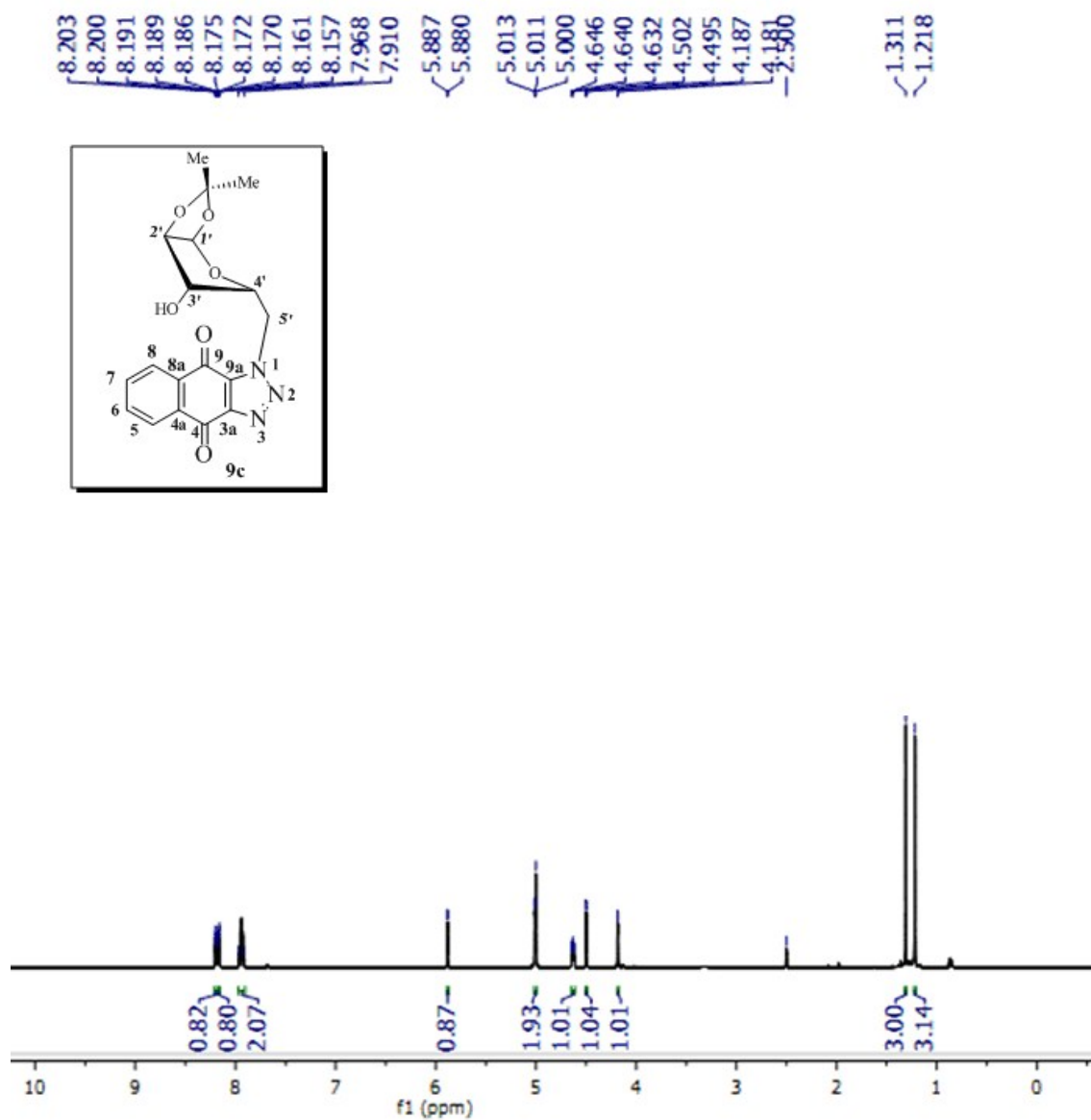
Expansion of the ^1H NMR spectrum of derivative **9b** (CDCl_3 , 300 MHz).



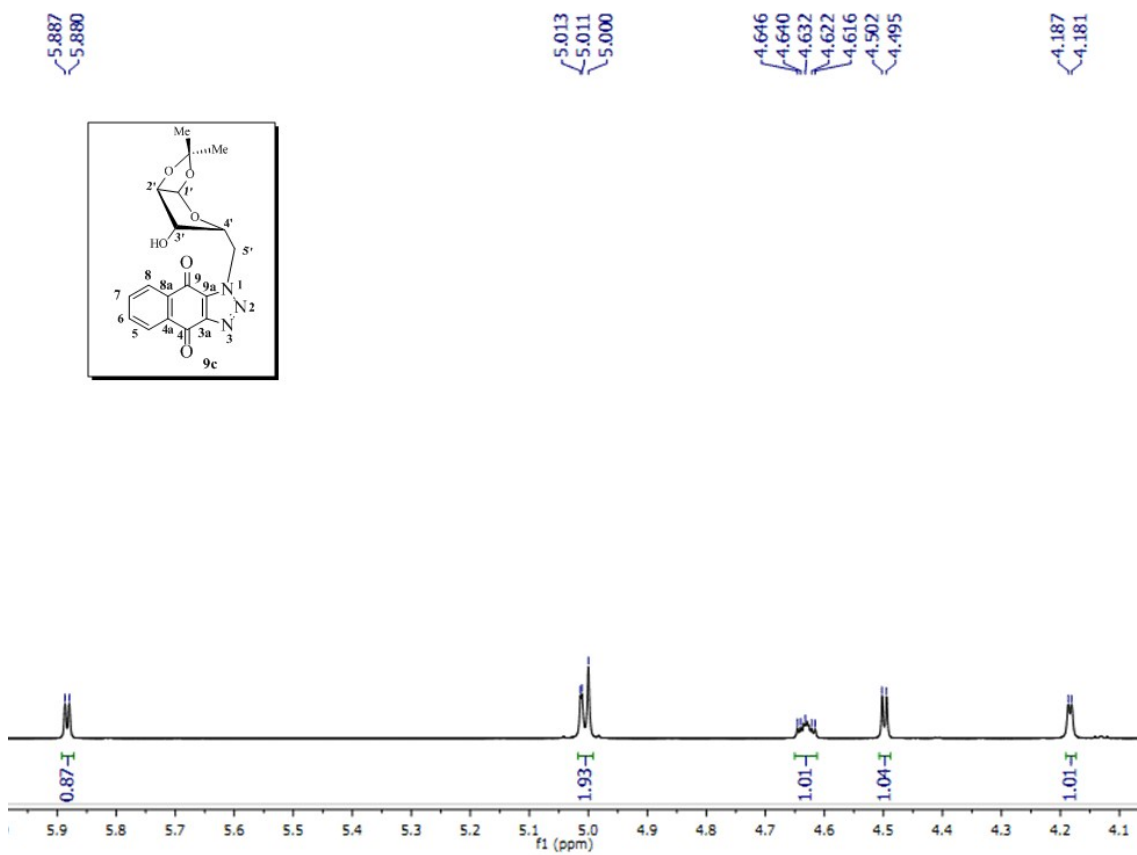
Expansion of the ¹H NMR spectrum of derivative **9b** (CDCl₃, 300 MHz).



¹³C / APT NMR spectrum of derivative **9b** (CDCl₃, 75 MHz).



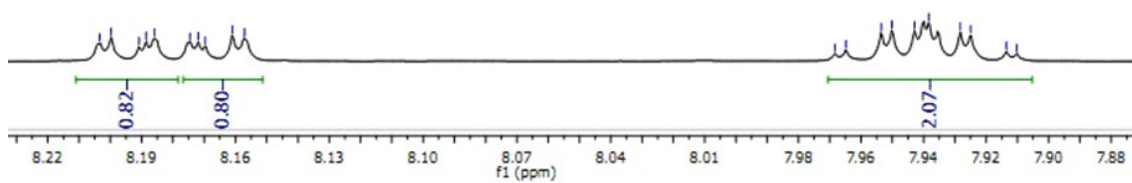
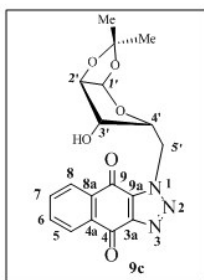
¹H NMR spectrum of derivative **9c** (CDCl₃, 500 MHz).



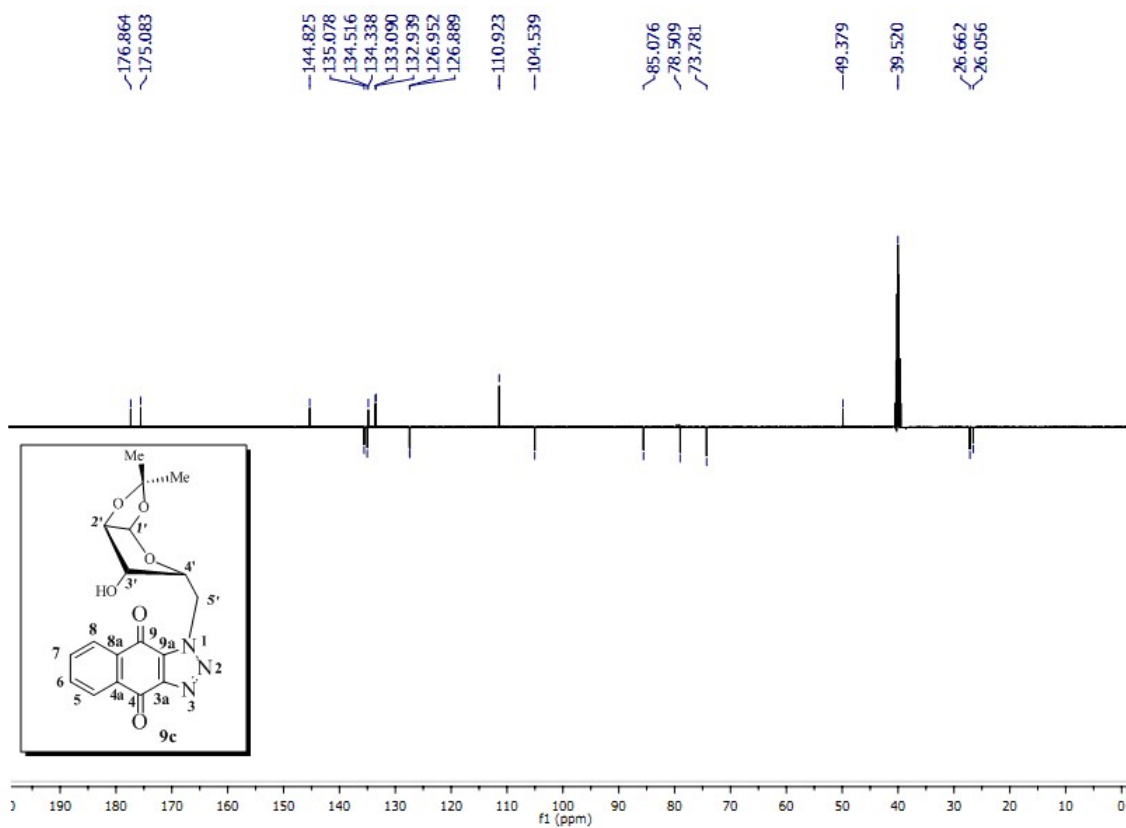
Expansion of the ^1H NMR spectrum of derivative **9c** (CDCl_3 , 500 MHz).

8.203
8.200
8.191
8.189
8.186
8.175
8.172
8.170
8.161
8.157

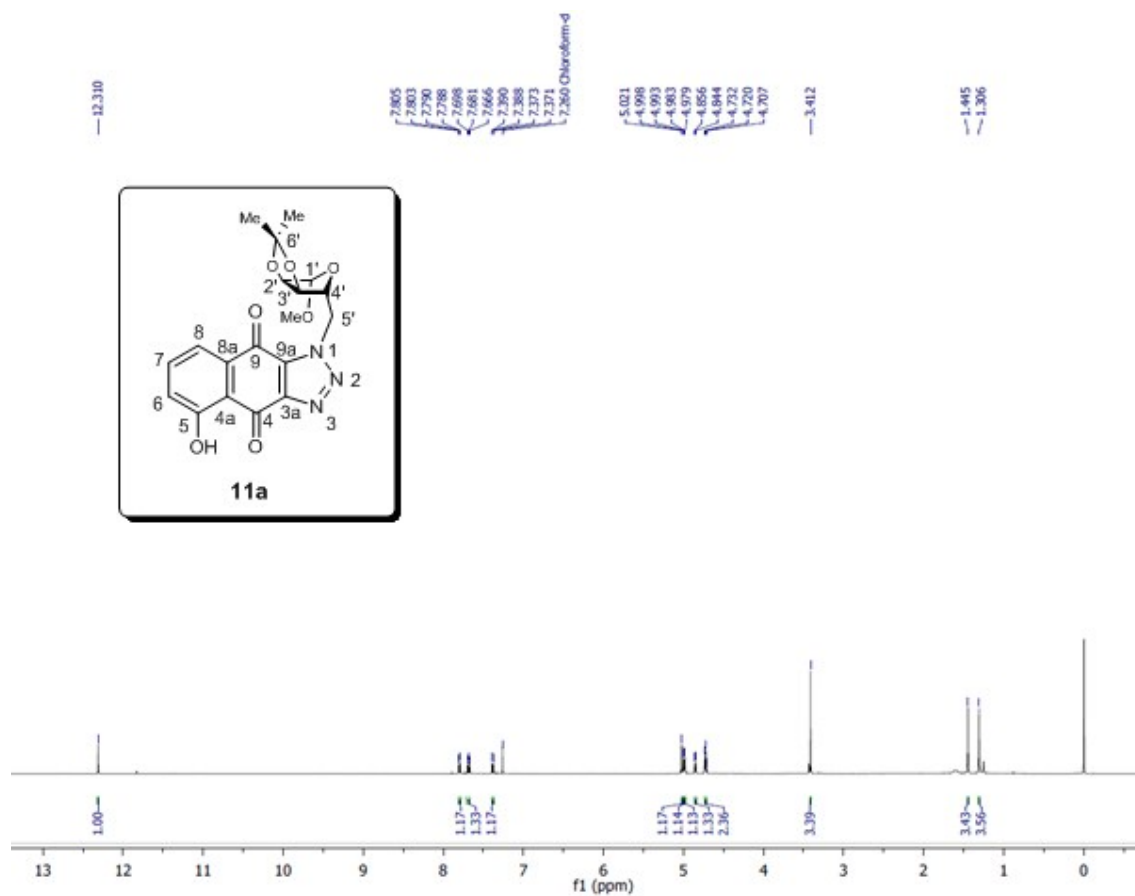
7.968
7.965
7.954
7.950
7.943
7.938
7.928
7.925
7.914
7.910



Expansion of the ^1H NMR spectrum of derivative **9c** (CDCl_3 , 500 MHz).



^{13}C / APT NMR spectrum of derivative **9c** (CDCl_3 , 125 MHz).

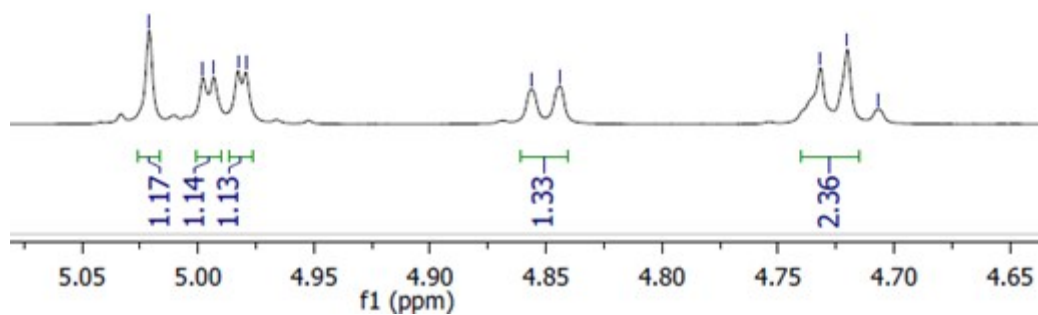
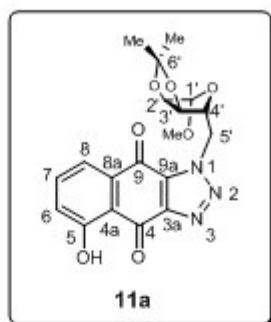


¹H NMR spectrum of derivative **11a** (CDCl₃, 500 MHz).

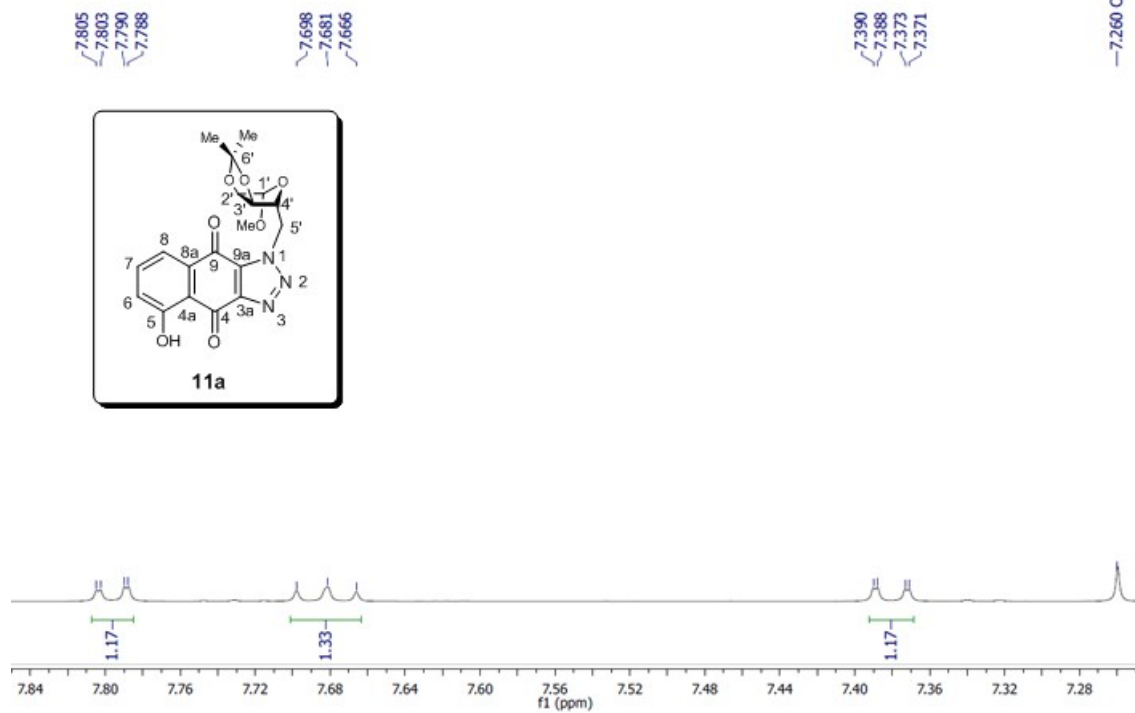
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4.998
4.993
4.983
4.979

4.856
4.844

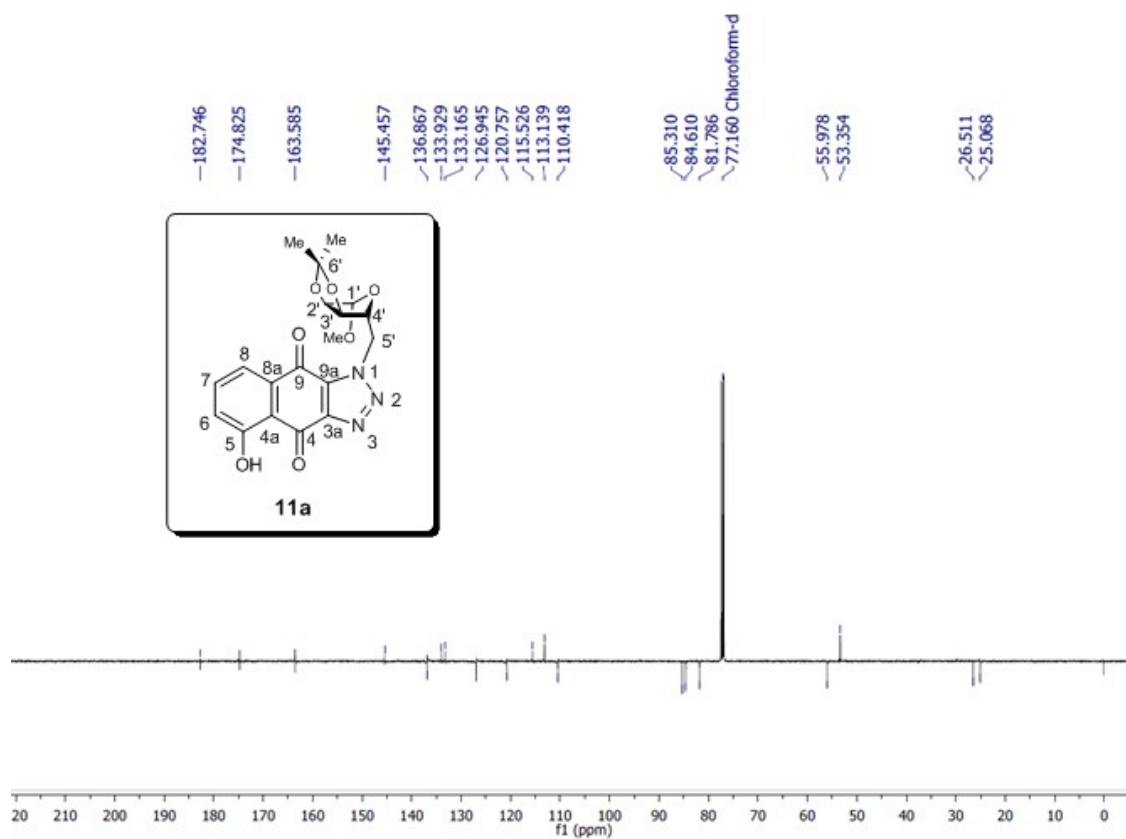
4.732
4.720
4.707



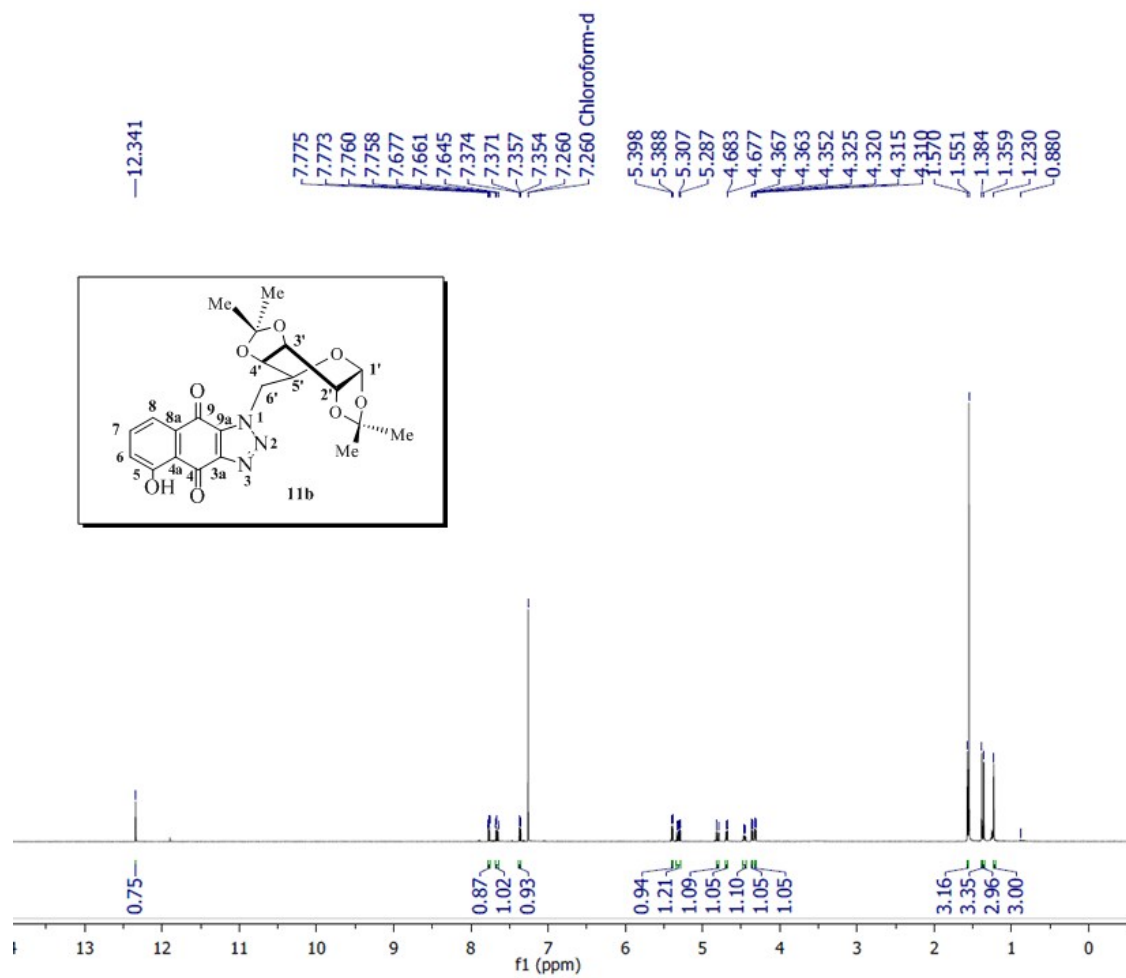
Expansion of the ^1H NMR spectrum of derivative **11a** (CDCl_3 , 500 MHz).



Expansion of the ^1H NMR spectrum of derivative **11a** (CDCl₃, 500 MHz).

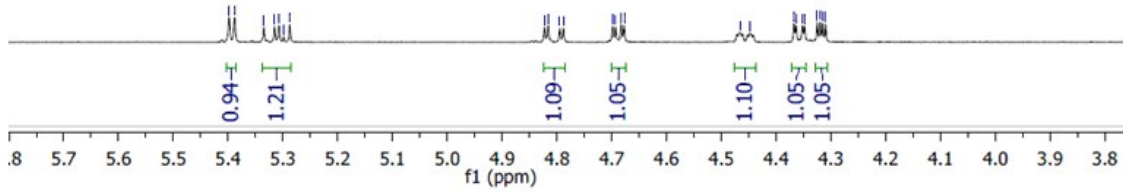
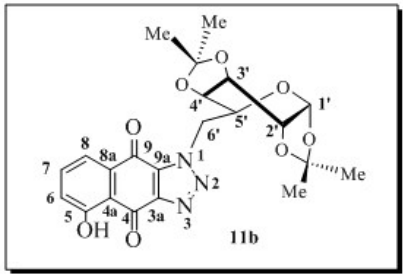


^{13}C / APT NMR spectrum of derivative **11a** (CDCl_3 , 125 MHz).

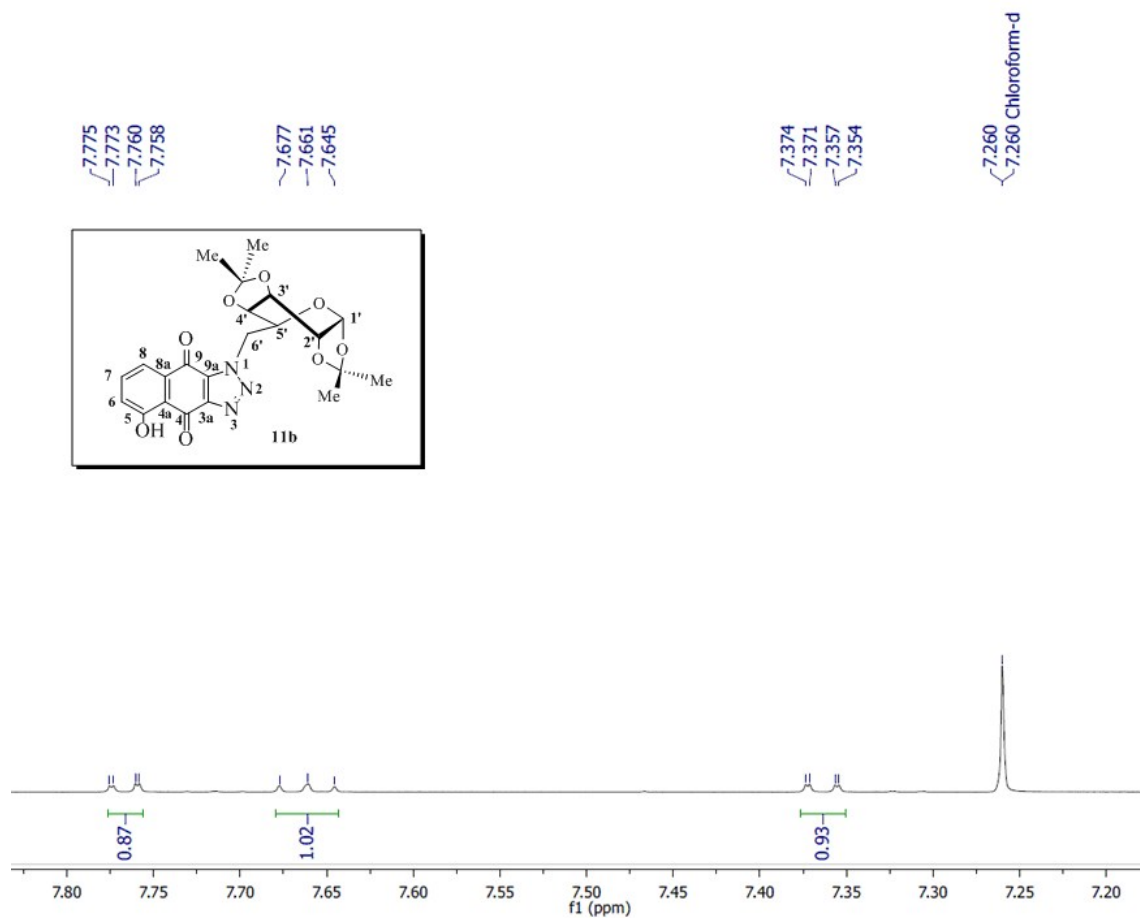


¹H NMR spectrum of derivative **11b** (CDCl₃, 300 MHz).

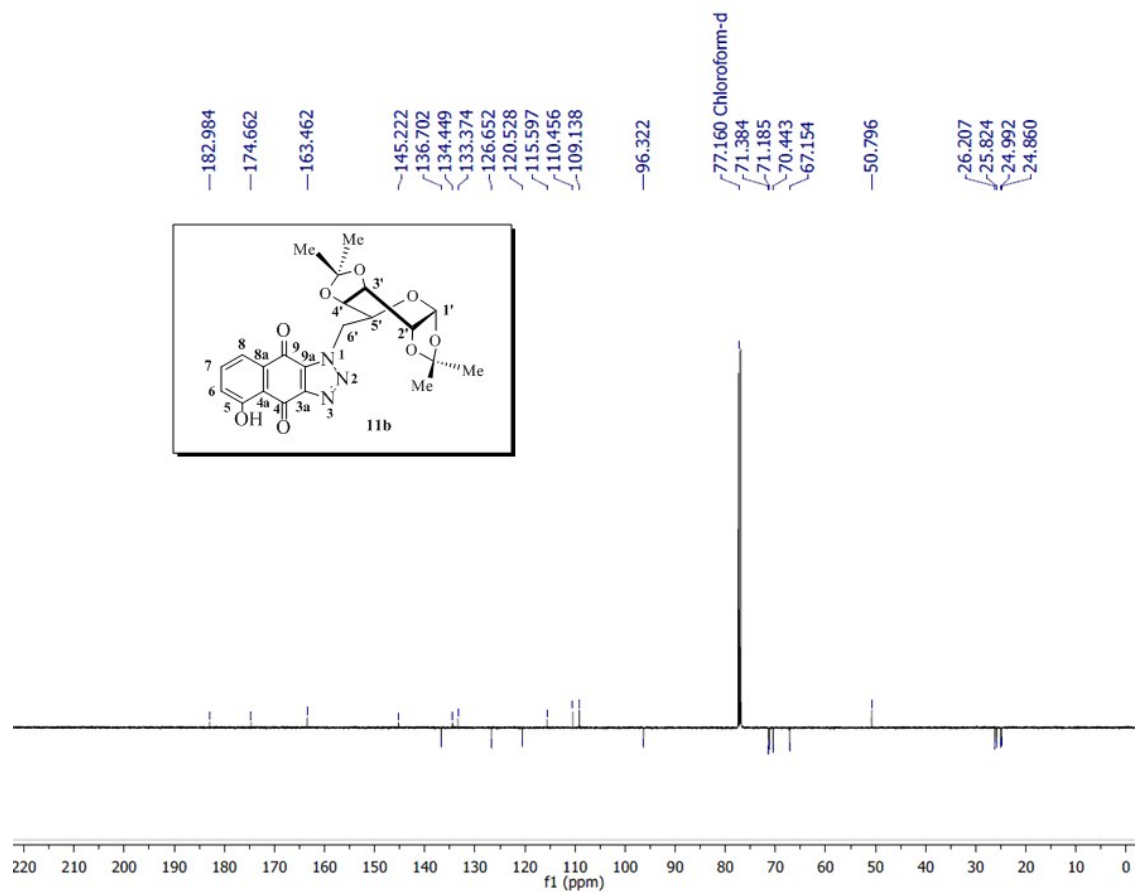
5.398
5.388
5.335
5.315
5.307
5.299
5.287
4.823
4.816
4.795
4.788
4.698
4.693
4.683
4.677
4.465
4.448
4.367
4.363
4.352
4.348
4.325
4.320
4.315
4.310



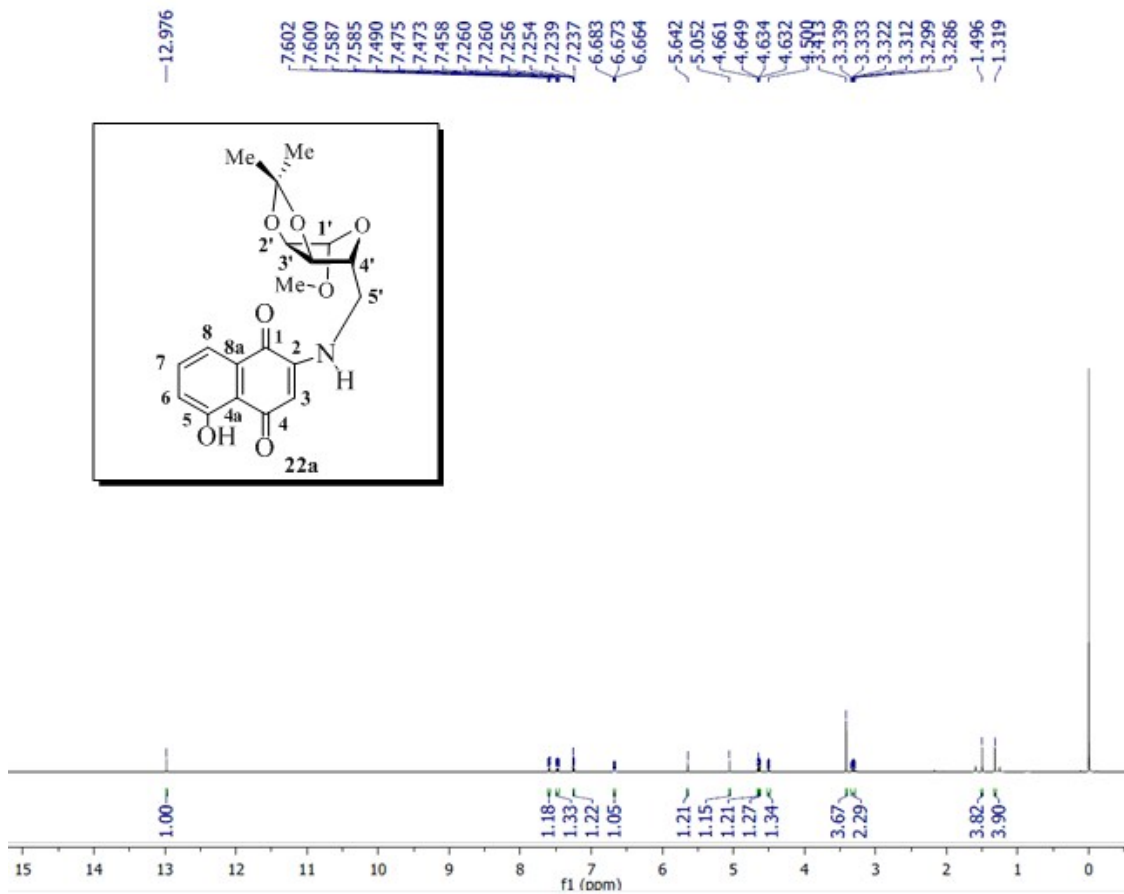
Expansion of the ¹H NMR spectrum of derivative **11b** (CDCl₃, 300 MHz).



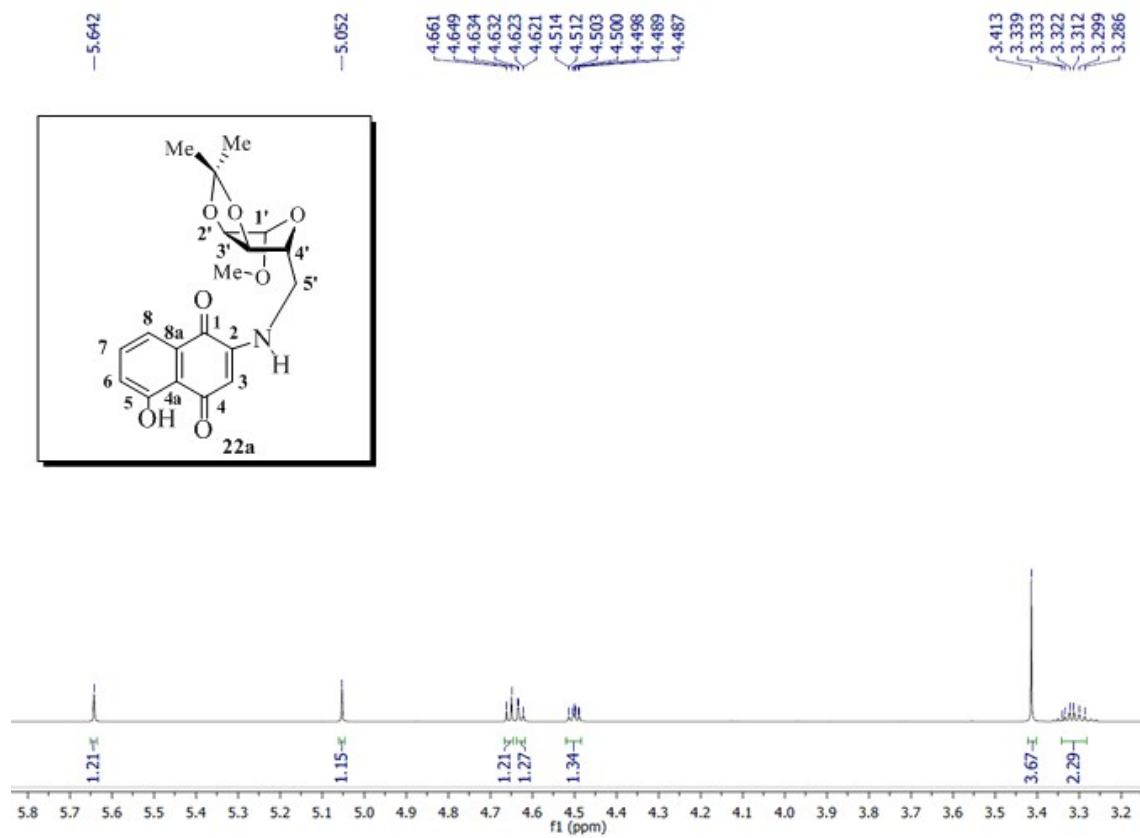
Expansion of the ^1H NMR spectrum of derivative **11b** (CDCl₃, 300 MHz).



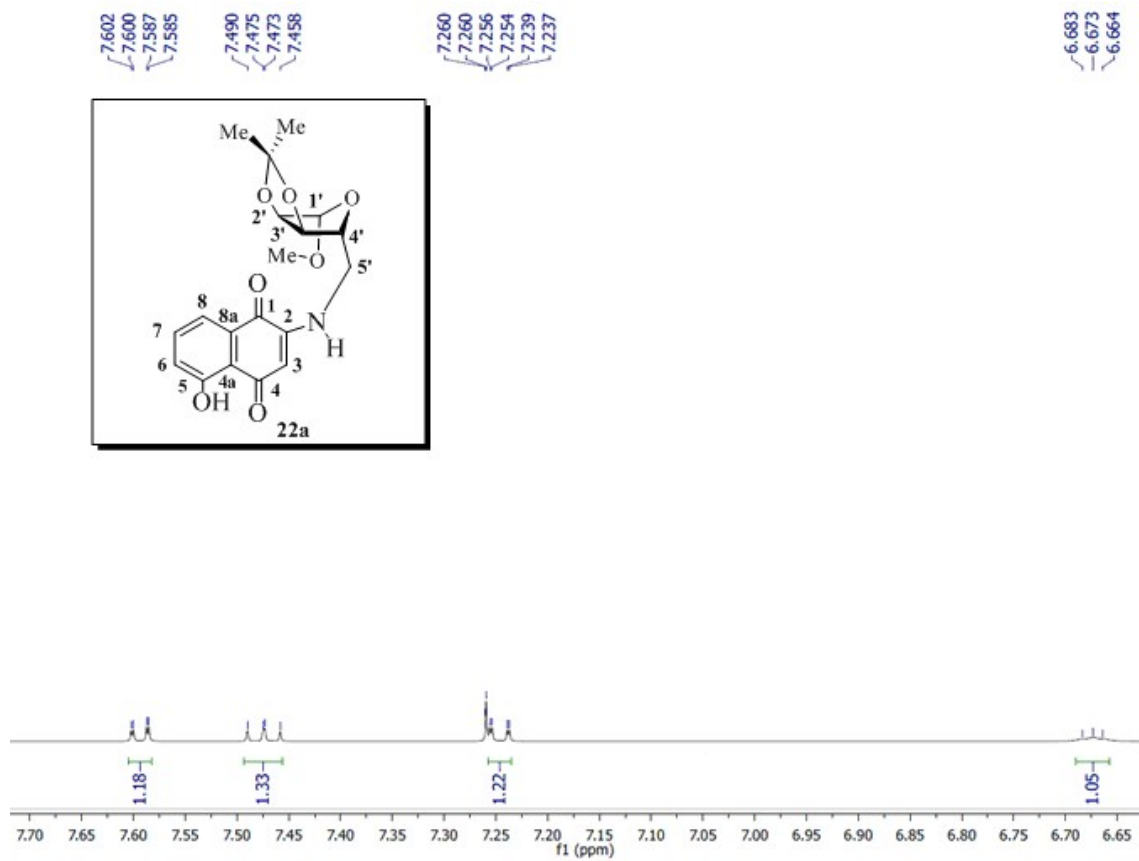
^{13}C / APT NMR spectrum of derivative **11b** (CDCl_3 , 75 MHz).



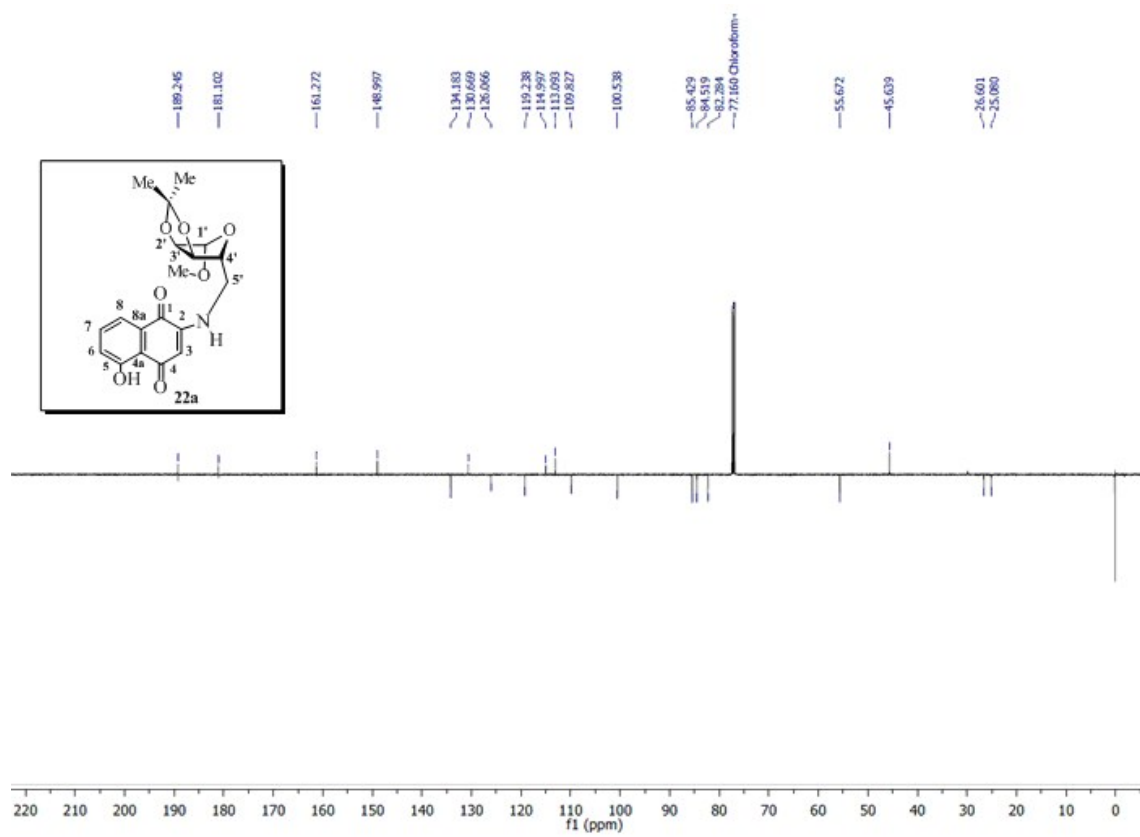
¹H NMR spectrum of derivative **22a** (CDCl₃, 500 MHz).



Expansion of the ^1H NMR spectrum of derivative **22a** (CDCl₃, 500 MHz).



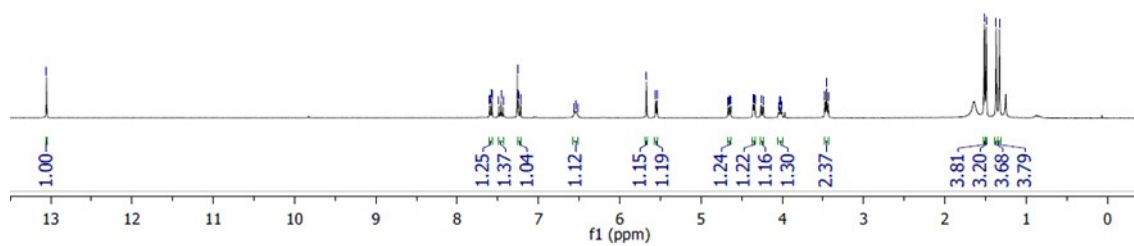
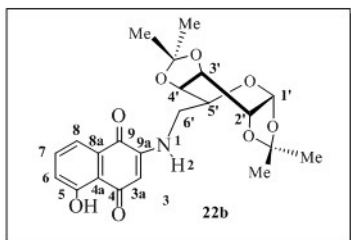
Expansion of the ^1H NMR spectrum of derivative **22a** (CDCl₃, 500 MHz).



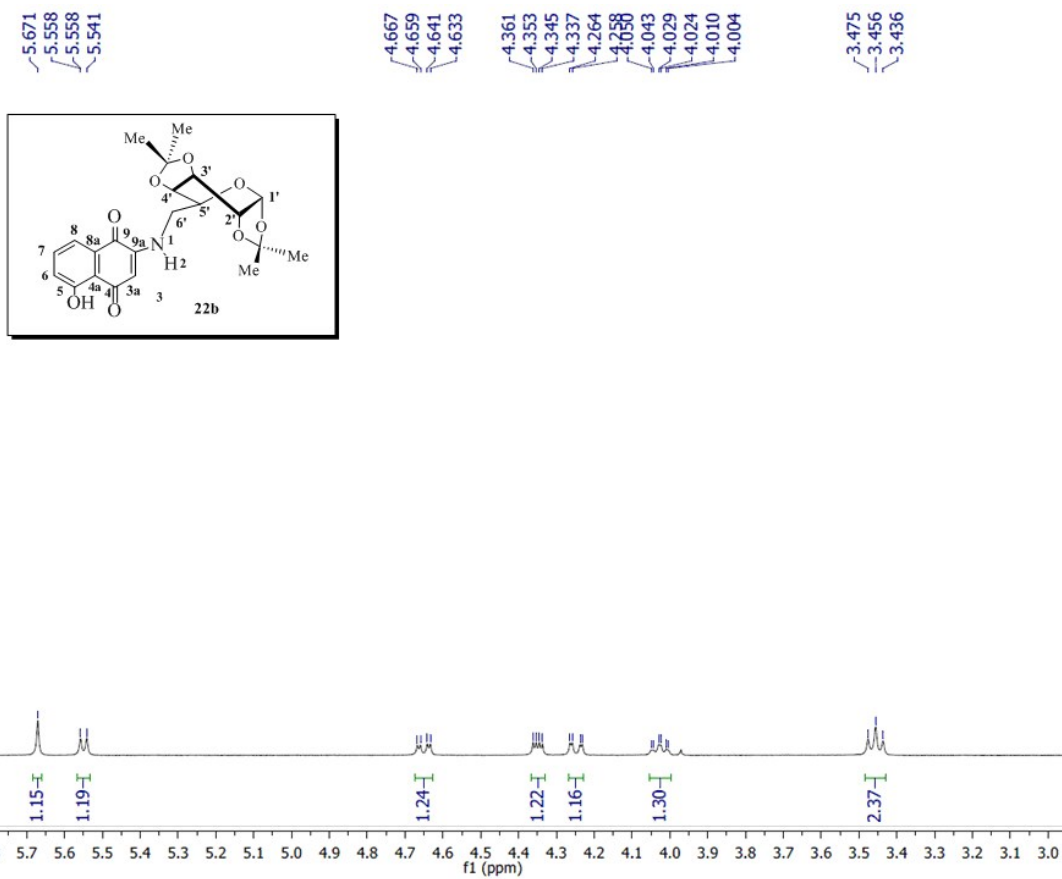
^{13}C / APT NMR spectrum of derivative **22a** (CDCl_3 , 125 MHz).

—13.051

7.601
7.597
7.576
7.572
7.487
7.459
7.434
7.260
7.250
7.246
7.222
7.218
6.560
6.541
5.671
5.558
5.541
4.641
4.633
4.361
4.353
4.345
4.337
4.264
4.258
3.475
3.456
3.438
1.518
1.492
1.370
1.330



^1H NMR spectrum of derivative **22b** (CDCl_3 , 300 MHz).



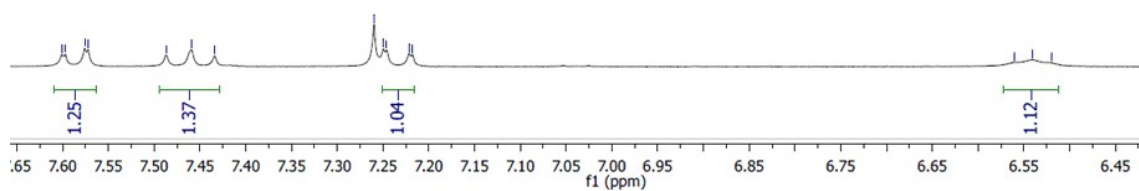
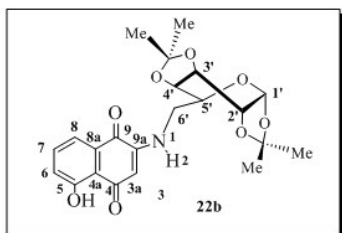
Expansion of the ¹H NMR spectrum of derivative **22b** (CDCl₃, 300 MHz).

7.601
7.597
7.576
7.572

7.487
7.459
7.434

7.260
7.250
7.246
7.222
7.218

6.560
6.541
6.520



Expansion of the ^1H NMR spectrum of derivative **22b** (CDCl_3 , 300 MHz).

