

BASE PAIRING INVOLVING ARTIFICIAL BASES IN VITRO AND IN VIVO

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Supplementary Results

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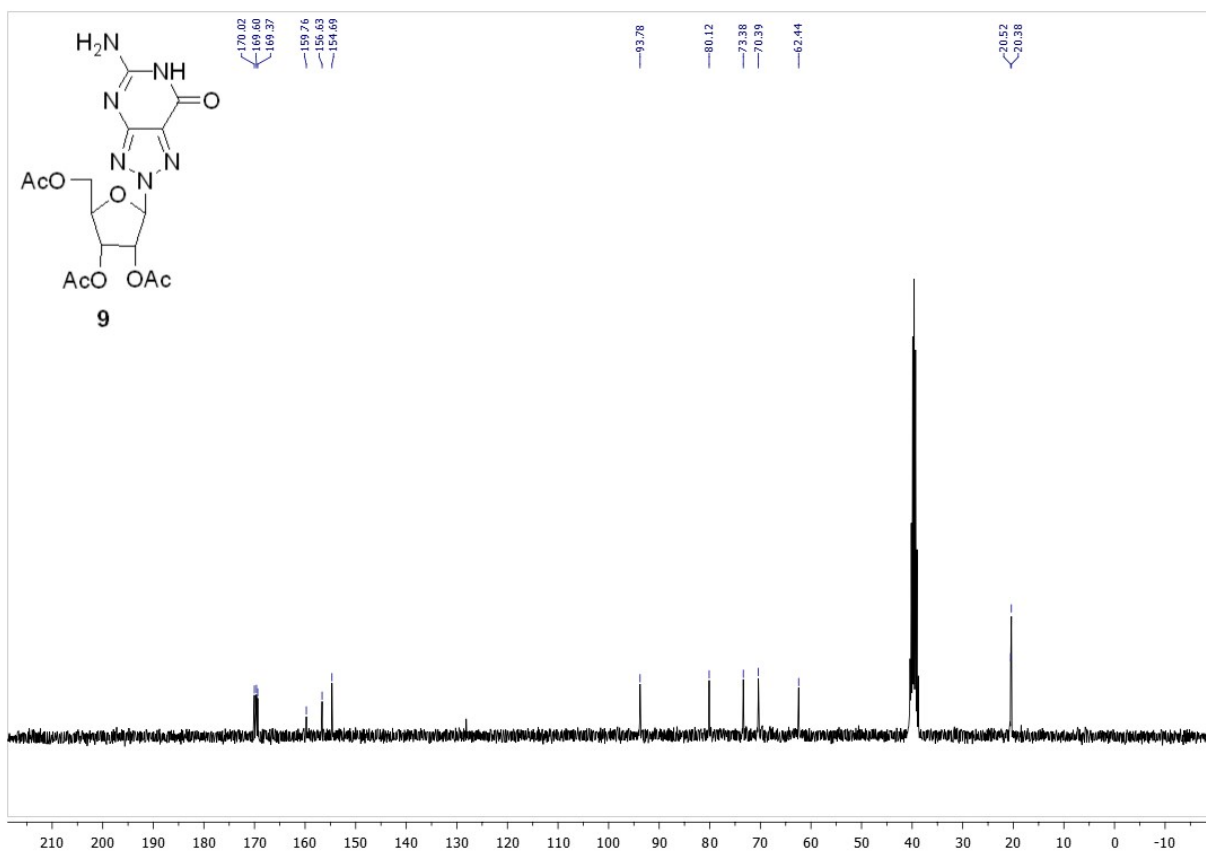
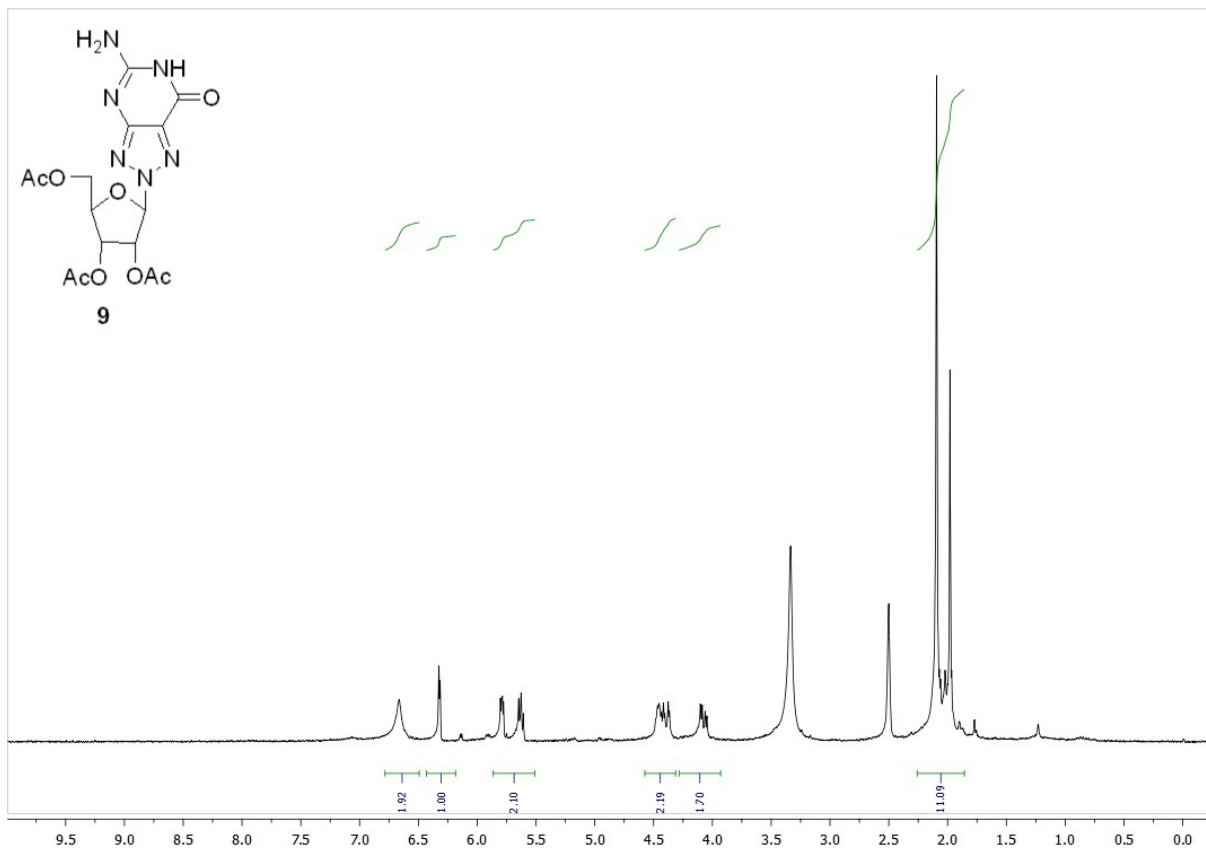
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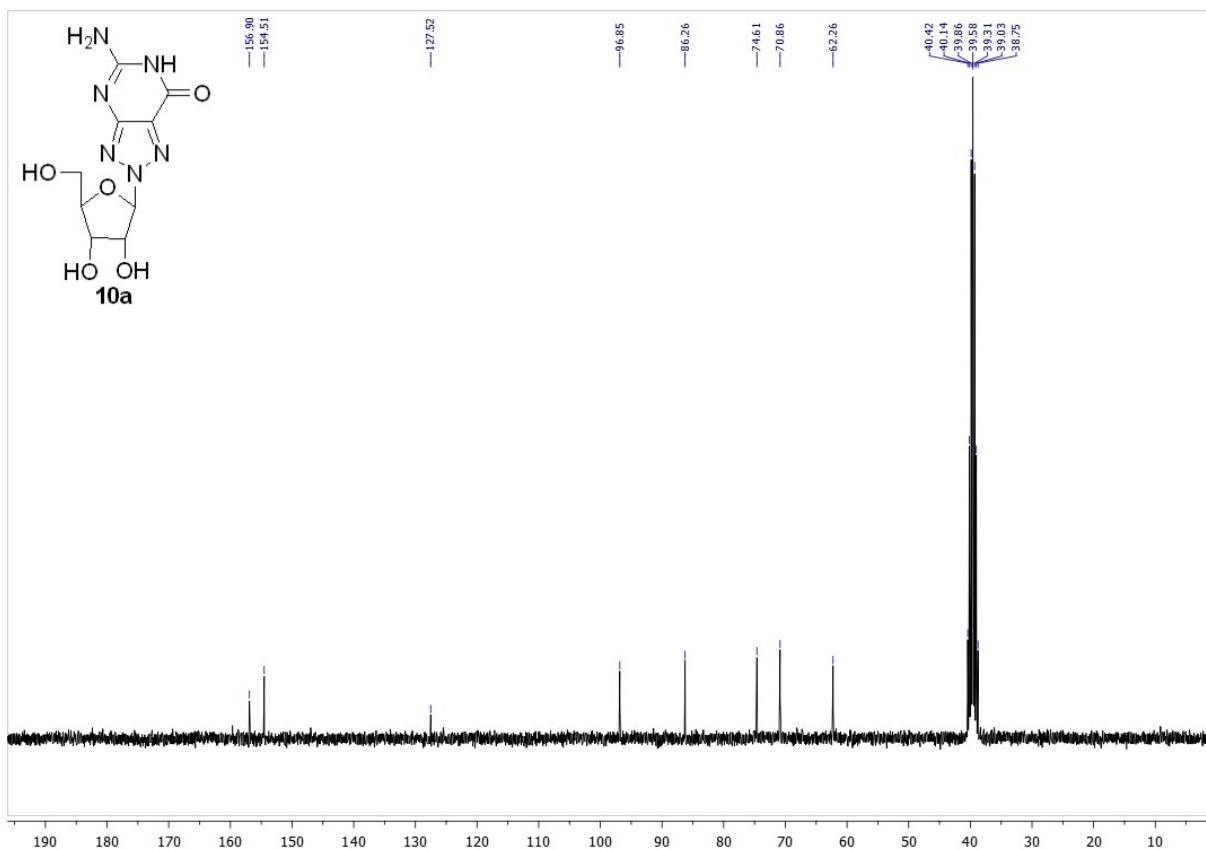
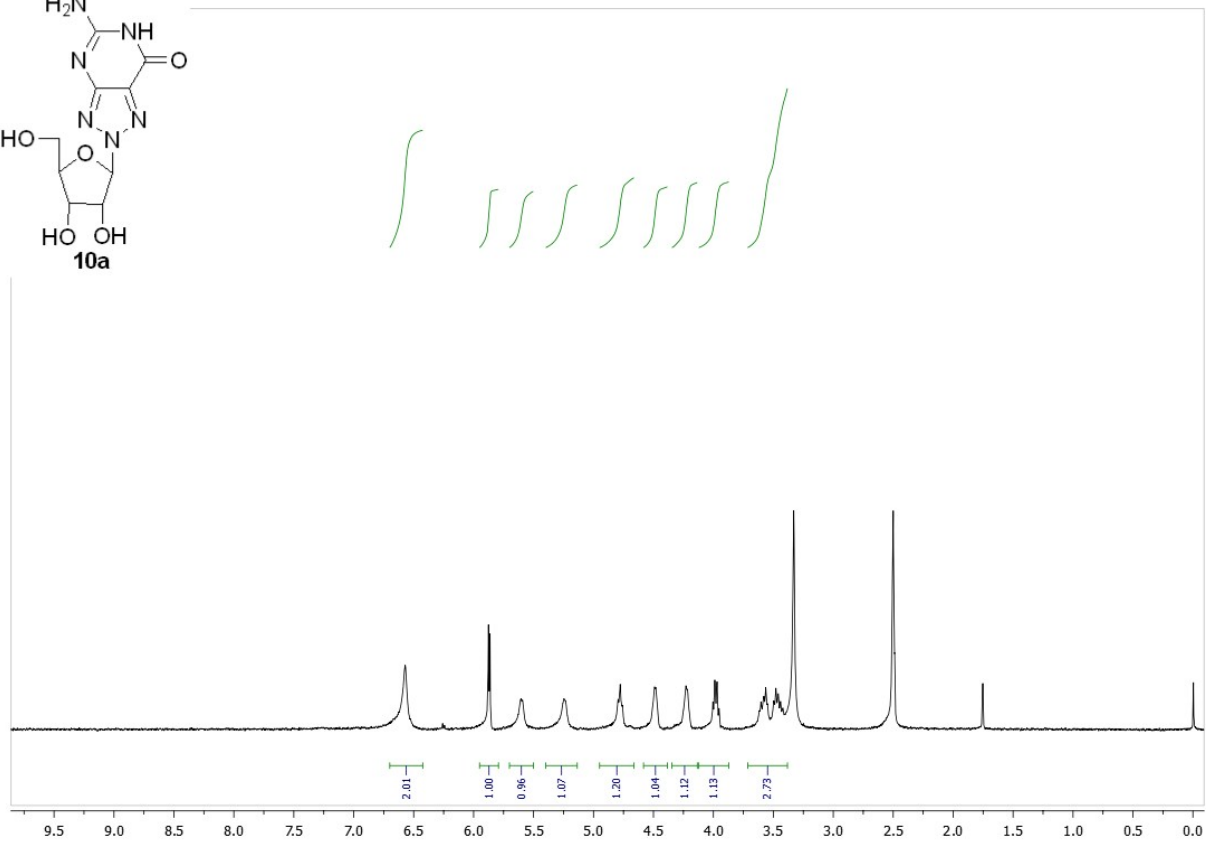
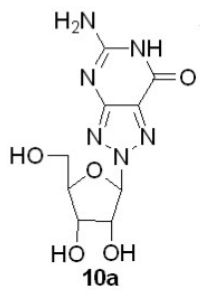
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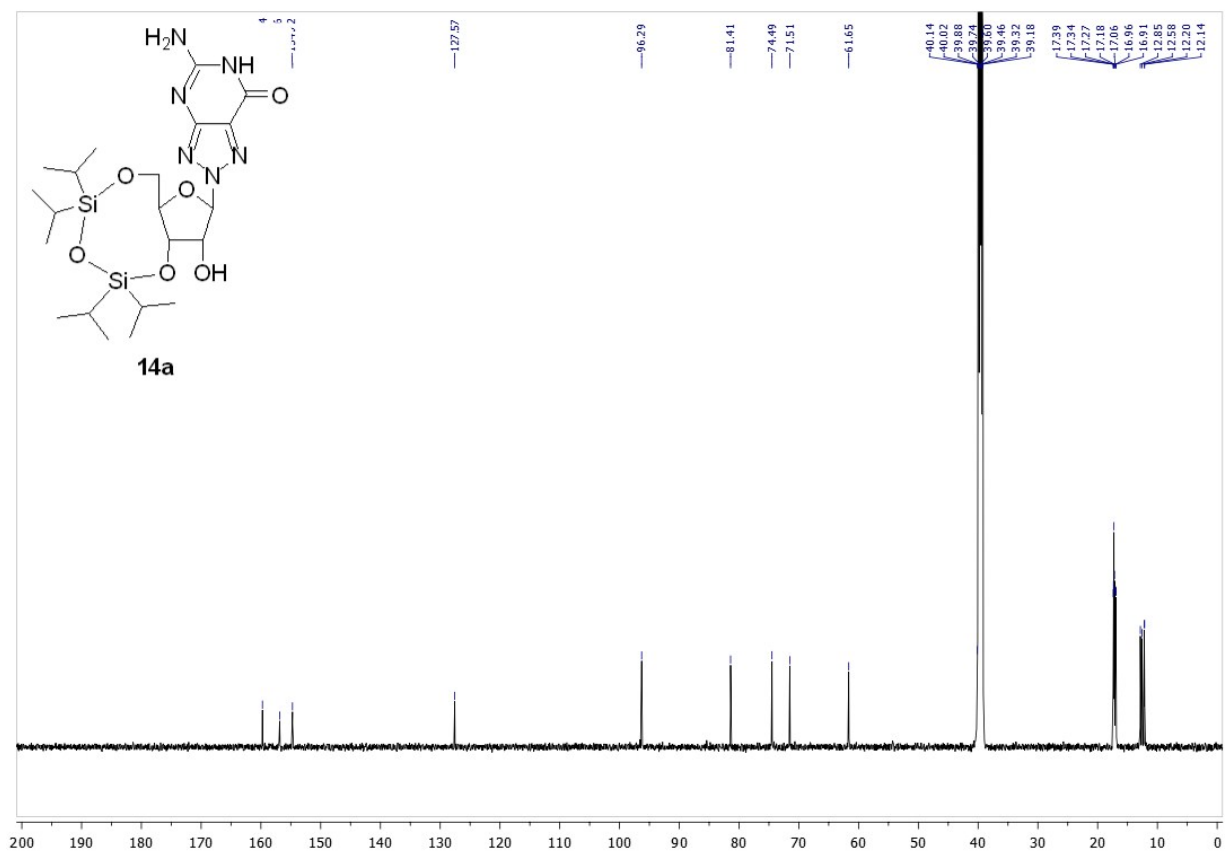
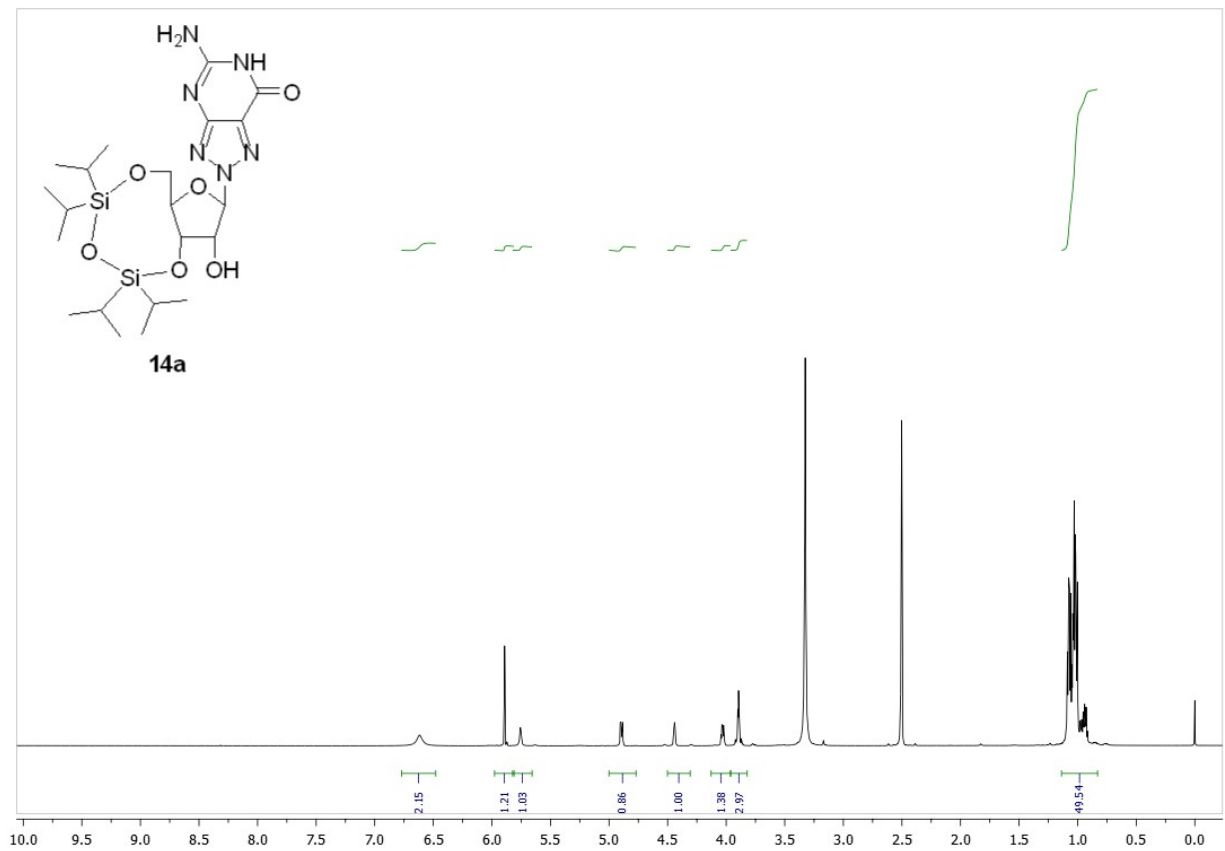
Supplementary Table 1: MS analysis of oligonucleotides

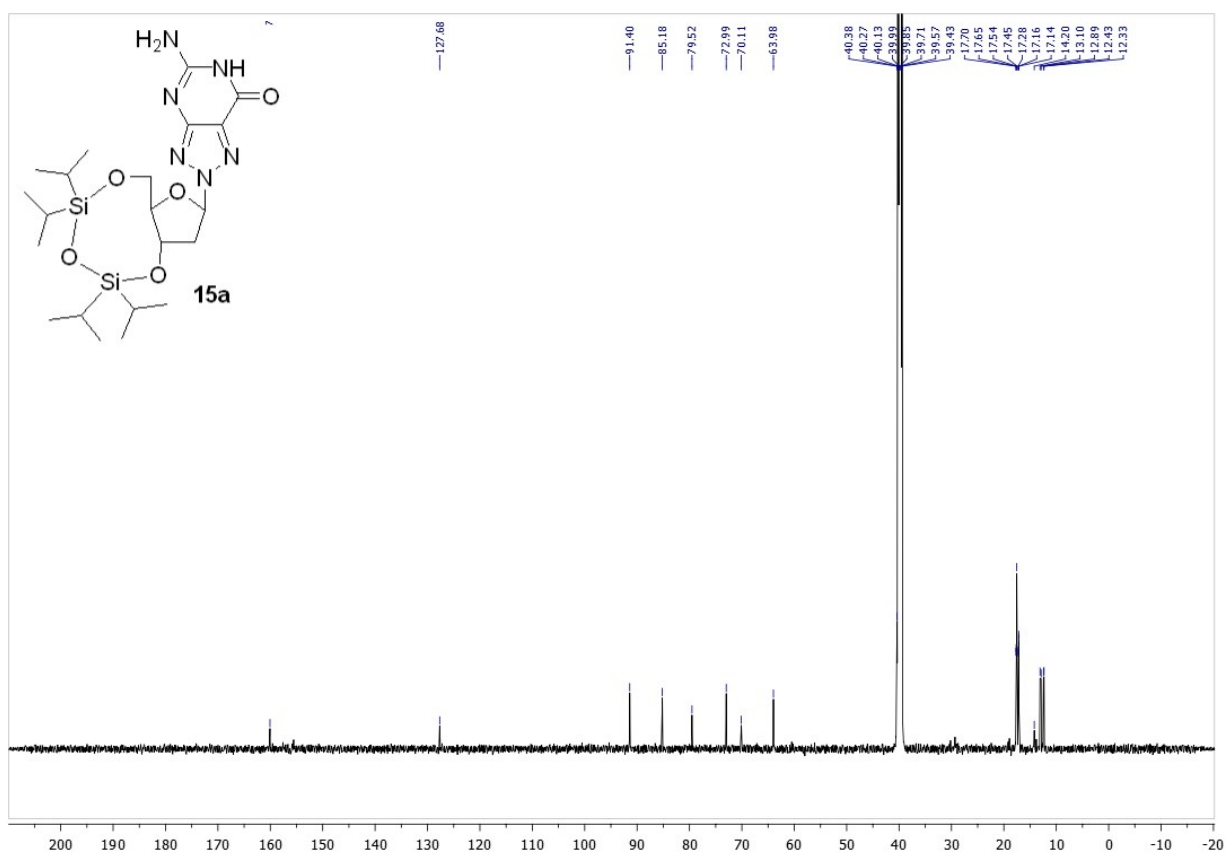
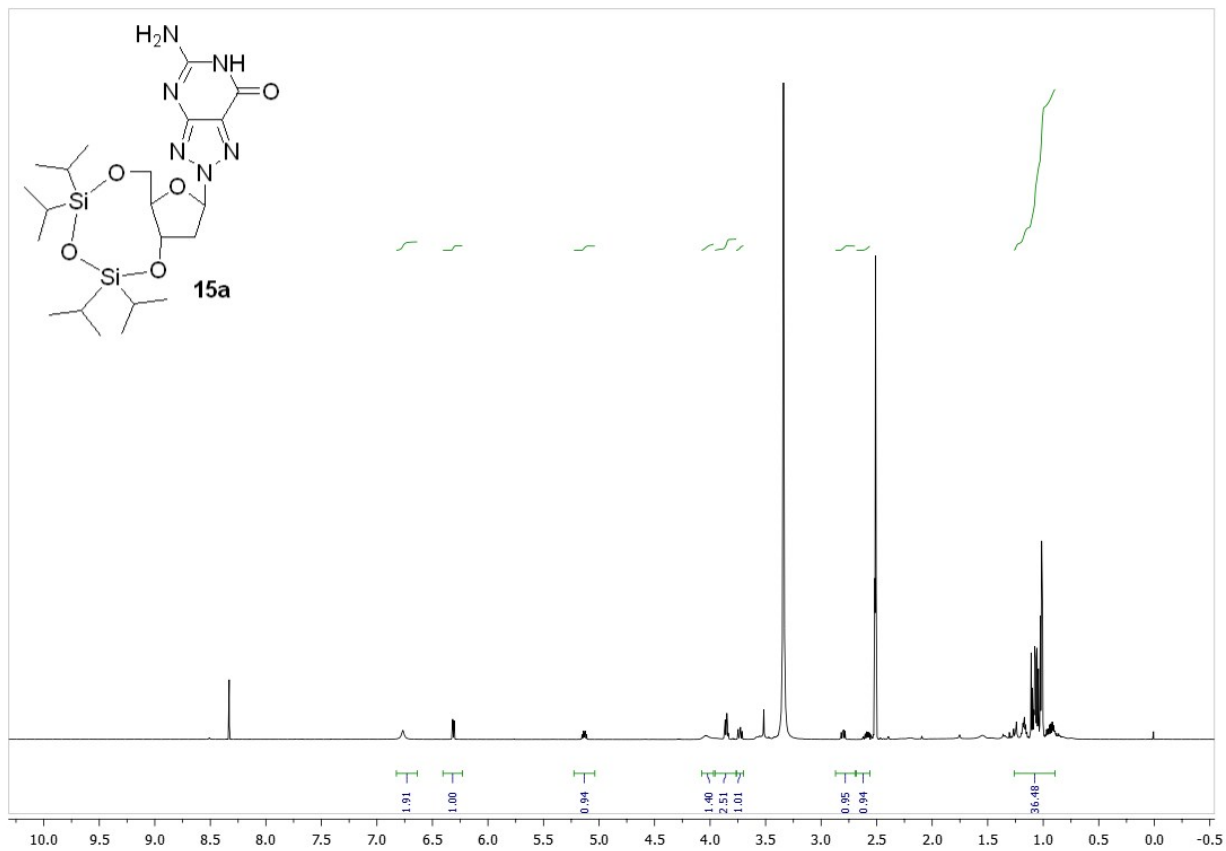
Oligonucleotide Sequence	Calculated Mass	Mass Found
1. d[GGT AGC A(8-aza-G)C GGT G]	4054.7	4055.3
2. d[GGT AGC A(8-aza-9-deaza-G)C GGT G]	4053.7	4053.9
3. d[CAC CG(8-NH ₂ -Hx) TGC TAC C]	3893.7	3893.9
4. d[CAC CG(1-Me-8-NH ₂ -Hx) TGC TAC C]	3907.7	3907.8
5. d[CAC CG(8-Oxo-Hx) TGC TAC C]	3894.7	3894.8
6. d[CAC CG(8-Oxo-A) TGC TAC C]	3893.7	3893.7
7. d[CAC CG(8-Oxo-G) TGC TAC C]	3909.7	3909.8
8. d[P-CTA (8-NH ₂ -Hx)CG CCG TGC CAT GCA]	5537.9	5537.5
9. d[P-CTA (1-Me-8-NH ₂ -Hx)CG CCG TGC CAT GCA]	5551.9	5552.0
10. d[P-CTA (8-Oxo-Hx)CG CCG TGC CAT GCA]	5538.9	5539.0
11. d[P-CTA (8-aza-G)CG CCG TGC CAT GCA]	5538.9	5538.8
12. d[P-CTA (8-aza-9-deaza-G)CG CCG TGC CAT GCA]	5537.9	5538.3
13. d[P-CTA GCG CCG (8-NH ₂ -Hx)GC CAT GCA]	5562.9	5562.6
14. d[P-CTA GCG CCG (1-Me-8-NH ₂ -Hx)GC CAT GCA]	5576.9	5576.9
15. d[P-CTA GCG CCG (8-Oxo-Hx)GC CAT GCA]	5563.9	5563.6
16. d[P-CTA GCG CCG (8-aza-G)GC CAT GCA]	5563.9	5563.8
17. d[P-CTA GCG CCG (8-aza-9-deaza-G)GC CAT GCA]	5562.9	5563.3
18. d[P-CTA GCG CCG TG(8-NH ₂ -Hx)CAT GCA]	5577.9	5577.7
19. d[P-CTA GCG CCG TG(1-Me-8-NH ₂ -Hx)CAT GCA]	5591.9	5591.9
20. d[P-CTA GCG CCG TG(8-Oxo-Hx) CAT GCA]	5578.9	5578.8
21. d[P-CTA GCG CCG TG(8-aza-G) CAT GCA]	5578.9	5579.0
22. d[P-CTA GCG CCG TG(8-aza-9-deaza-G) CAT GCA]	5577.9	5578.3
23. d[P-CTA GCG CCG TGC C(8-NH ₂ -Hx)T GCA]	5537.9	5537.5
24. d[P-CTA GCG CCG TGC C(1-Me-8-NH ₂ -Hx)T GCA]	5567.9	5568.0
25. d[P-CTA GCG CCG TGC C(8-Oxo-Hx)T GCA]	5554.9	5554.7
26. d[P-CTA GCG CCG TGC C(8-aza-G)T GCA]	5554.9	5555.5
27. d[P-CTA GCG CCG TGC C(8-aza-9-deaza-G)T GCA]	5553.9	5553.9
28. d[P-CTA GC(8-Oxo-Hx) CCT TGT CAT GCA]	5528.9	5528.5
29. d[P-CTA GC(8-aza-G) CCT TGT CAT GCA]	5528.9	5529.5
30. d[P-CTA GC(8-aza-9-deaza-G) CCT TGT CAT GCA]	5527.9	5528.1

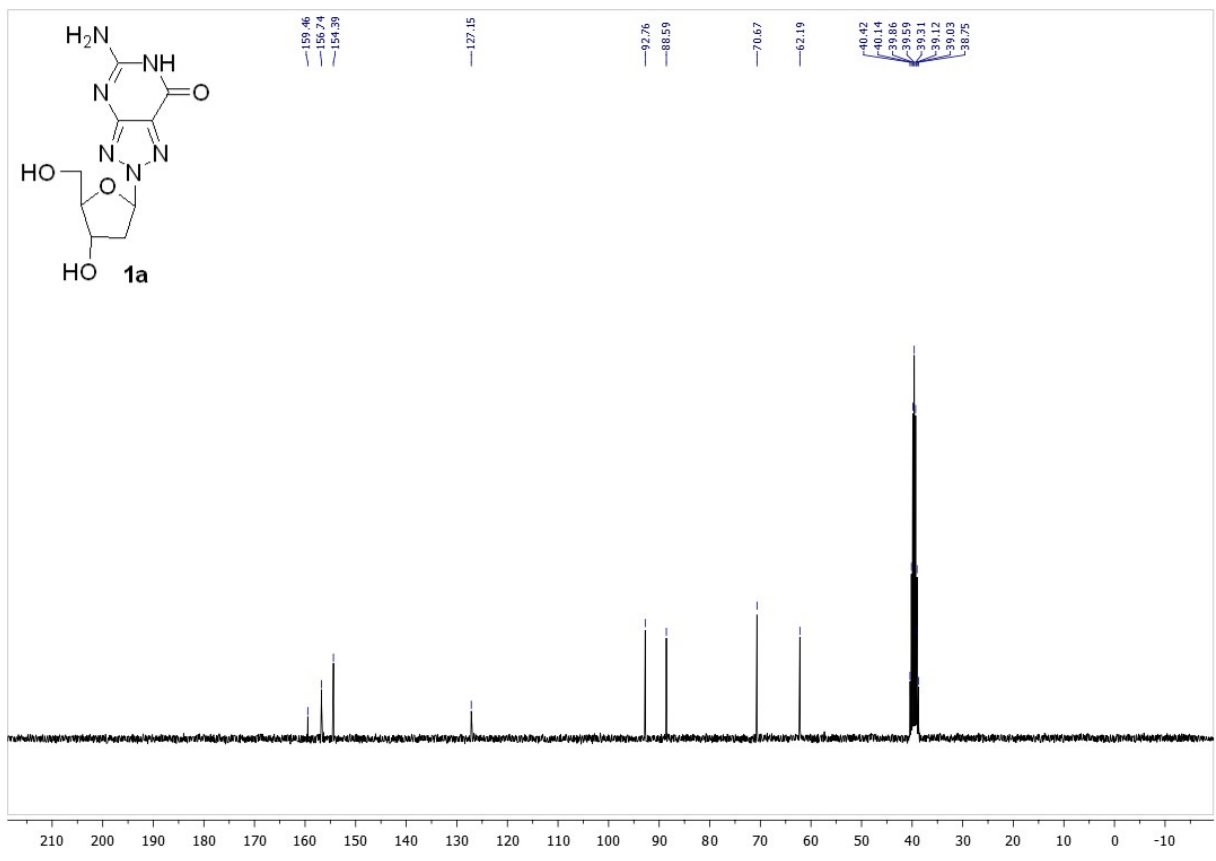
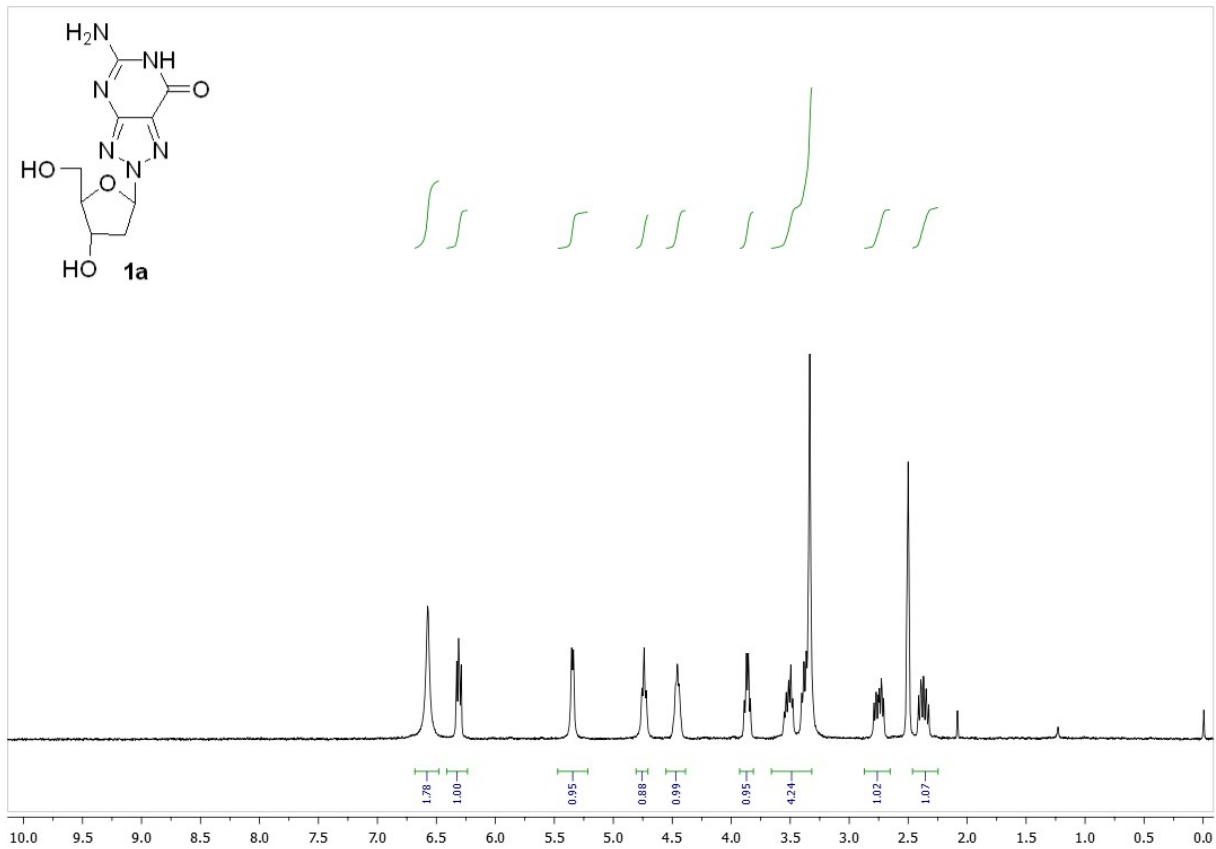
31. d[P-CTA GC(8-Oxo-A) CCT TGT CAT GCA	5527.9	5528.5
32. d[P-CTA GC(8-Oxo-G) CCT TGT CAT GCA]	5543.9	5544.2
33. d[P-CTA GCX CXT TGT CAT GCA (X=8-Oxo-Hx)]	5569.9	5569.8
34. d[P-CTA GCX CXT TGT CAT GCA (X=8-aza-G)]	5569.9	5570.4
35. d[P-CTA GCX CXT TGT CAT GCA (X=8-aza-9-deaza-G)]	5567.9	5567.6
36. d[P-CTA GCX CXT TGT CAT GCA (X=8-Oxo-A)]	5567.9	5568.3
37. d[P-CTA GCX CXT TGT CAT GCA (X=8-Oxo-G)]	5599.9	5600.2
38. d[P-CTA GCX XCT TGT CAT GCA (X=8-Oxo-Hx)]	5569.9	5569.8
39. d[P-CTA GCX XCT TGT CAT GCA (X=8-aza-G)]	5569.9	5570.3
40. d[P-CTA GCX XCT TGT CAT GCA (X=8-aza-9-deaza-G)]	5567.9	5568.3
41. d[P-CTA GCX XCT TGT CAT GCA (X=8-Oxo-A)]	5567.9	5568.3
42. d[P-CTA GCX XCT TGT CAT GCA(X=8-Oxo-G)]	5599.9	5600.3
43. d[P-CTA GCX XXT TGT CAT GCA (X=8-Oxo-Hx)]	5610.9	5611.0
44. d[P-CTA GCX XXT TGT CAT GCA (X=8-aza-G)]	5610.9	5611.7
45. d[P-CTA GCX XXT TGT CAT GCA (X=8-aza-9-deaza-G)]	5607.9	5608.3
46. d[P-CTA GCX XXT TGT CAT GCA (X=8-Oxo-A)]	5607.9	5608.3
47. d[P-CTA GCX XXT TGT CAT GCA (X=8-Oxo-G)]	5655.9	5656.3

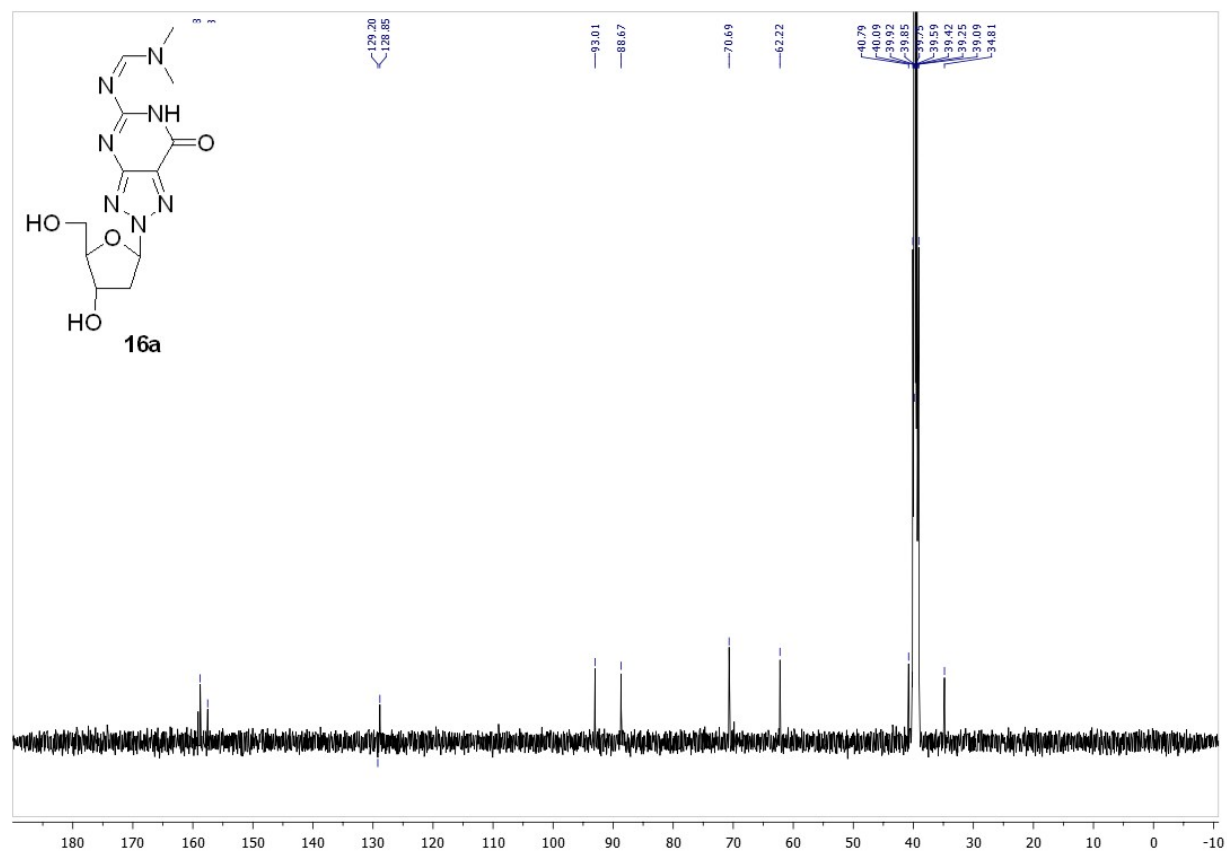
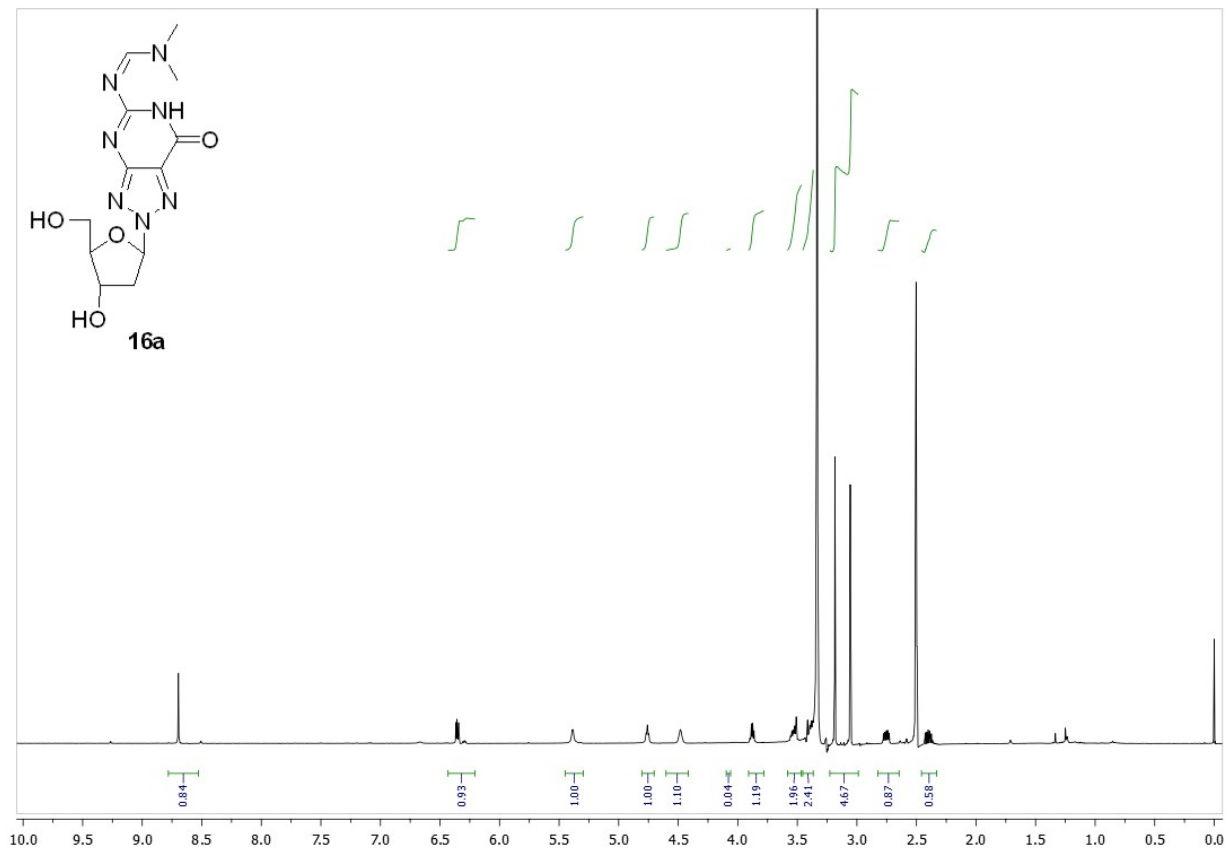


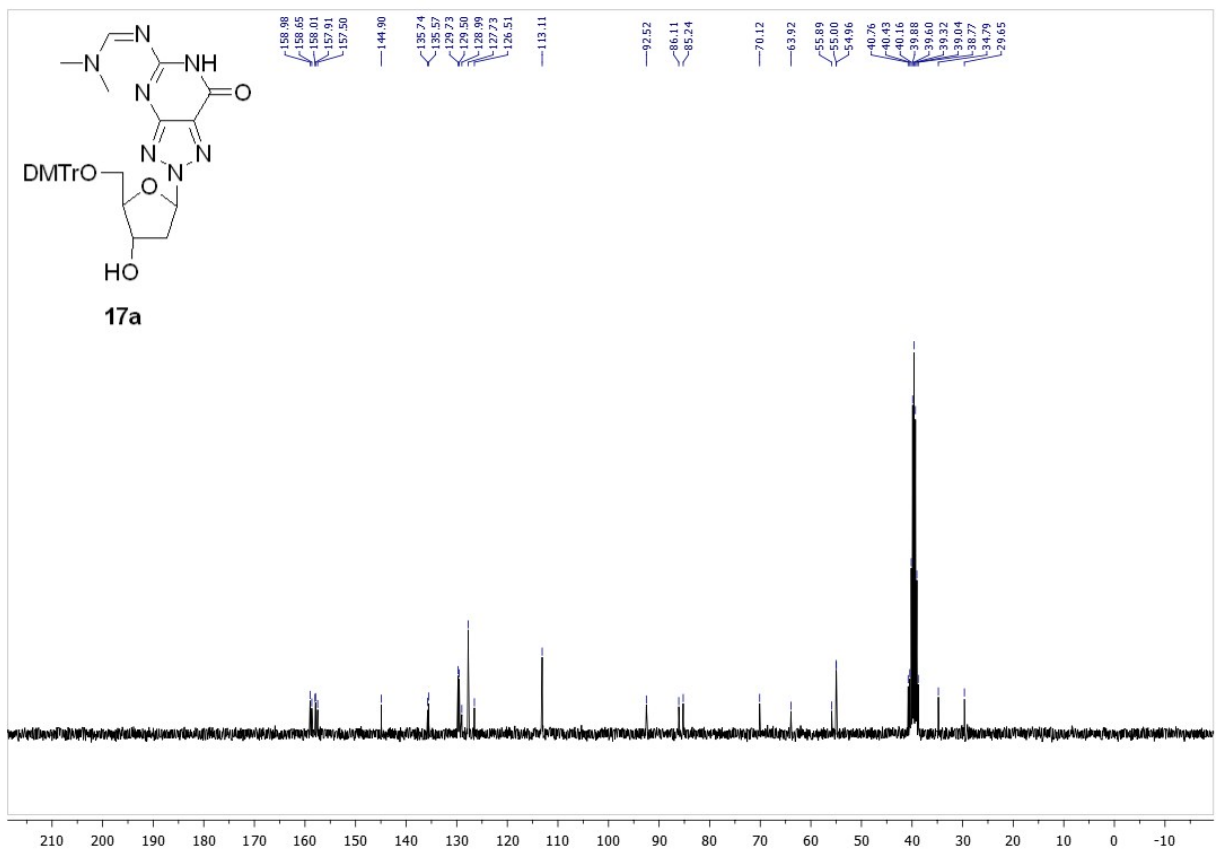
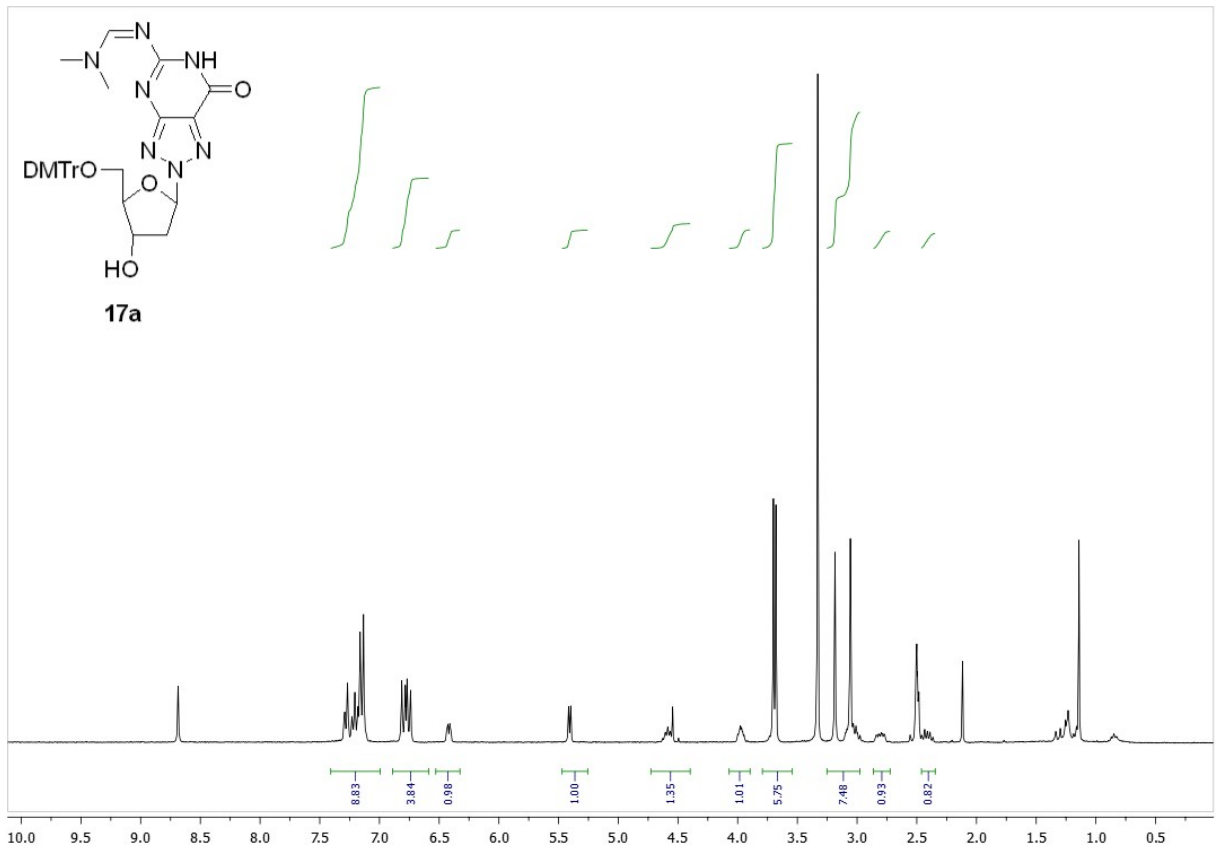


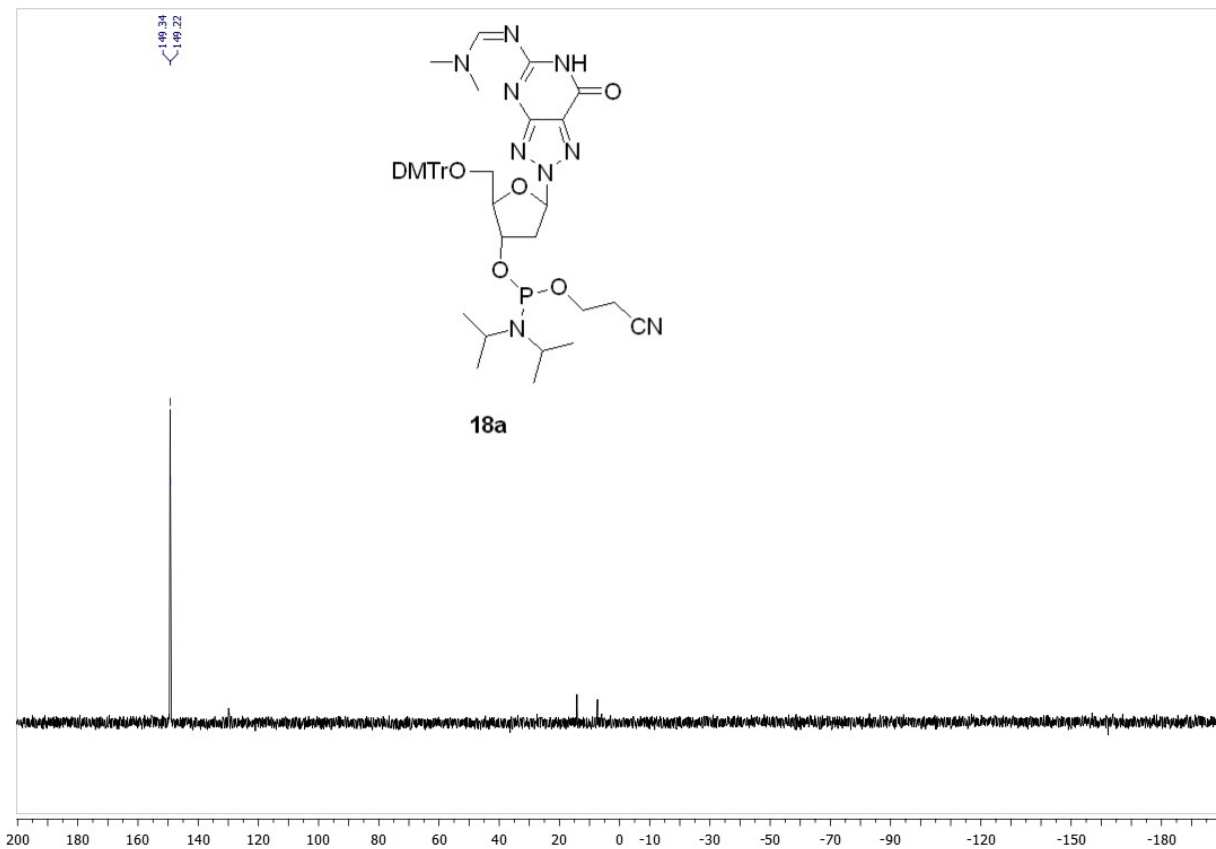








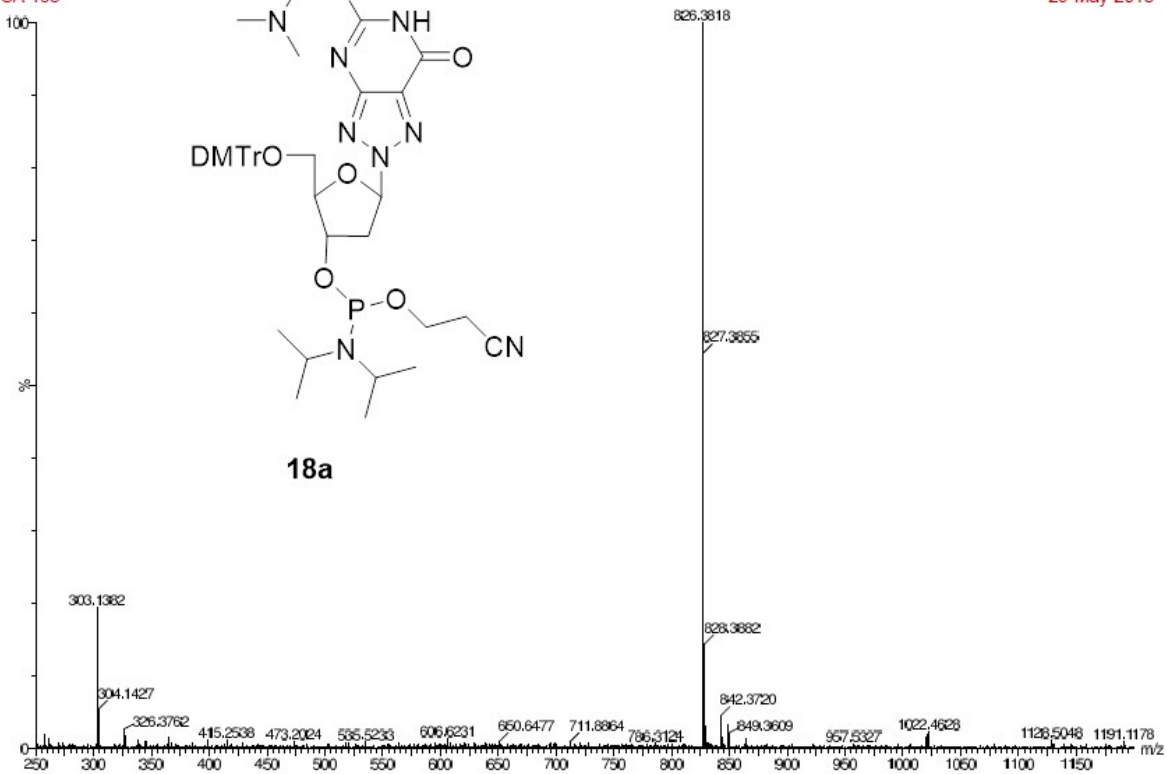


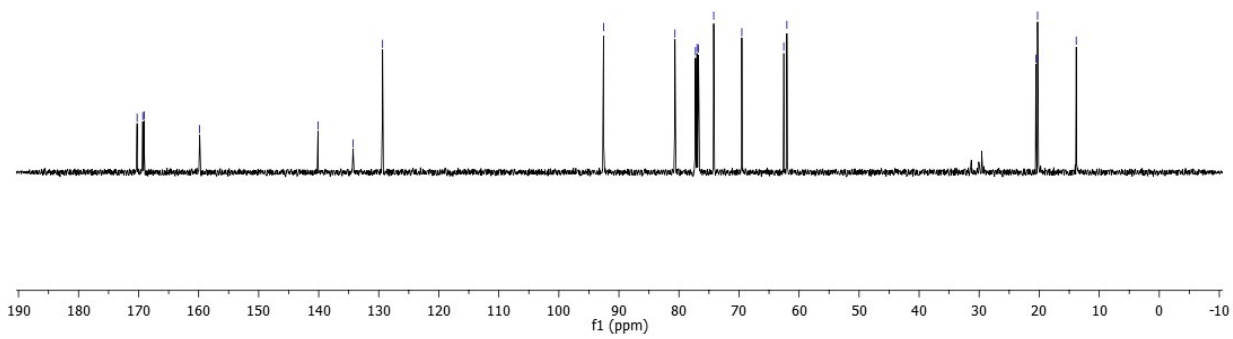
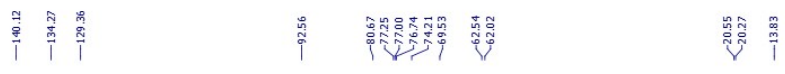
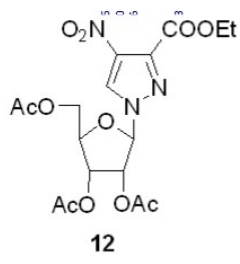
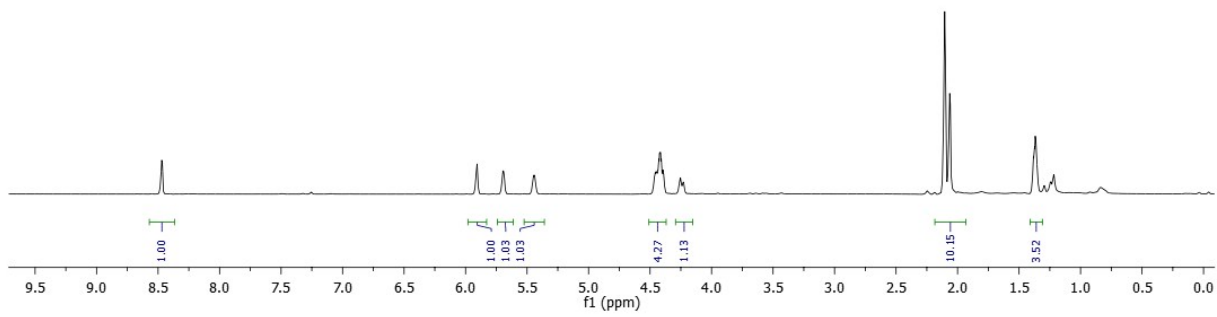
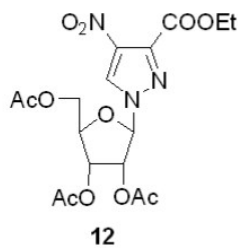


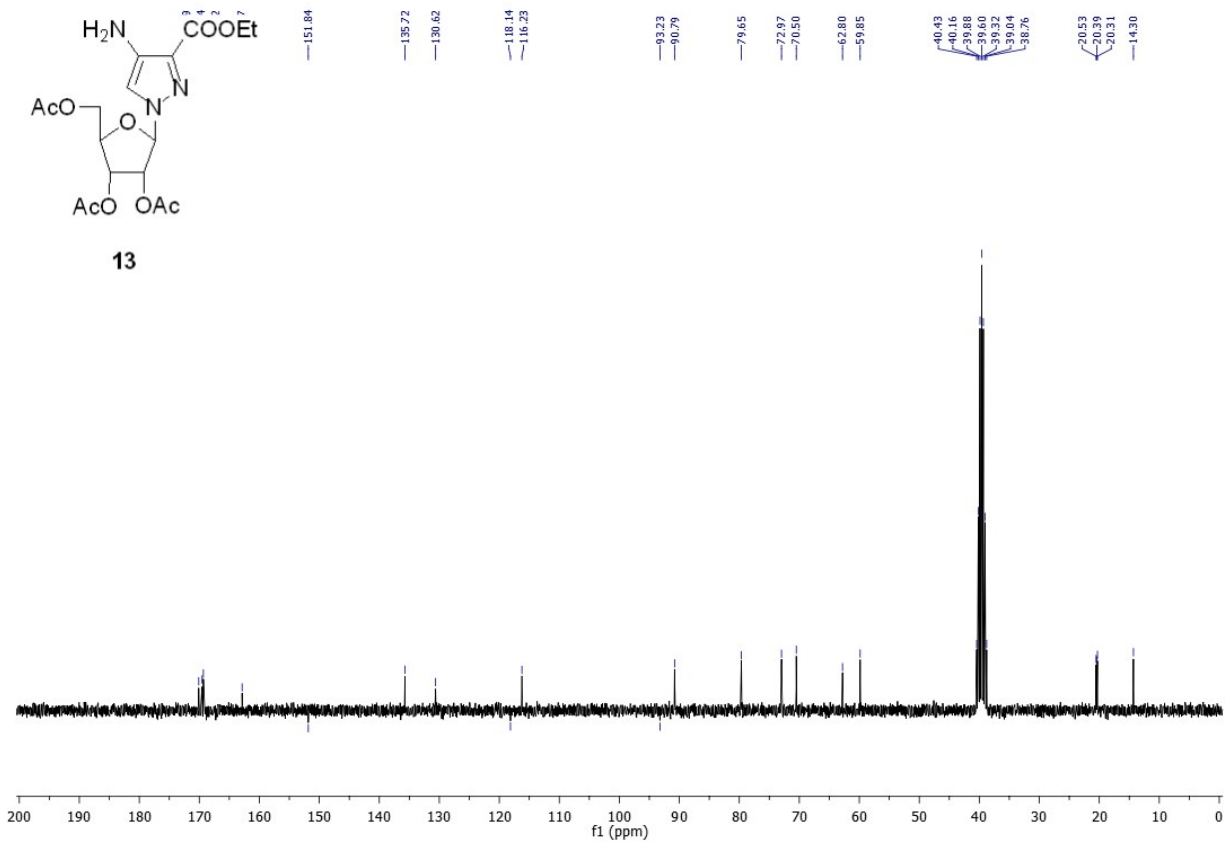
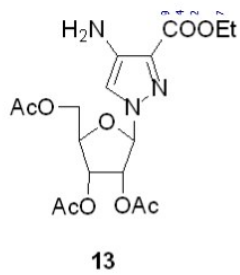
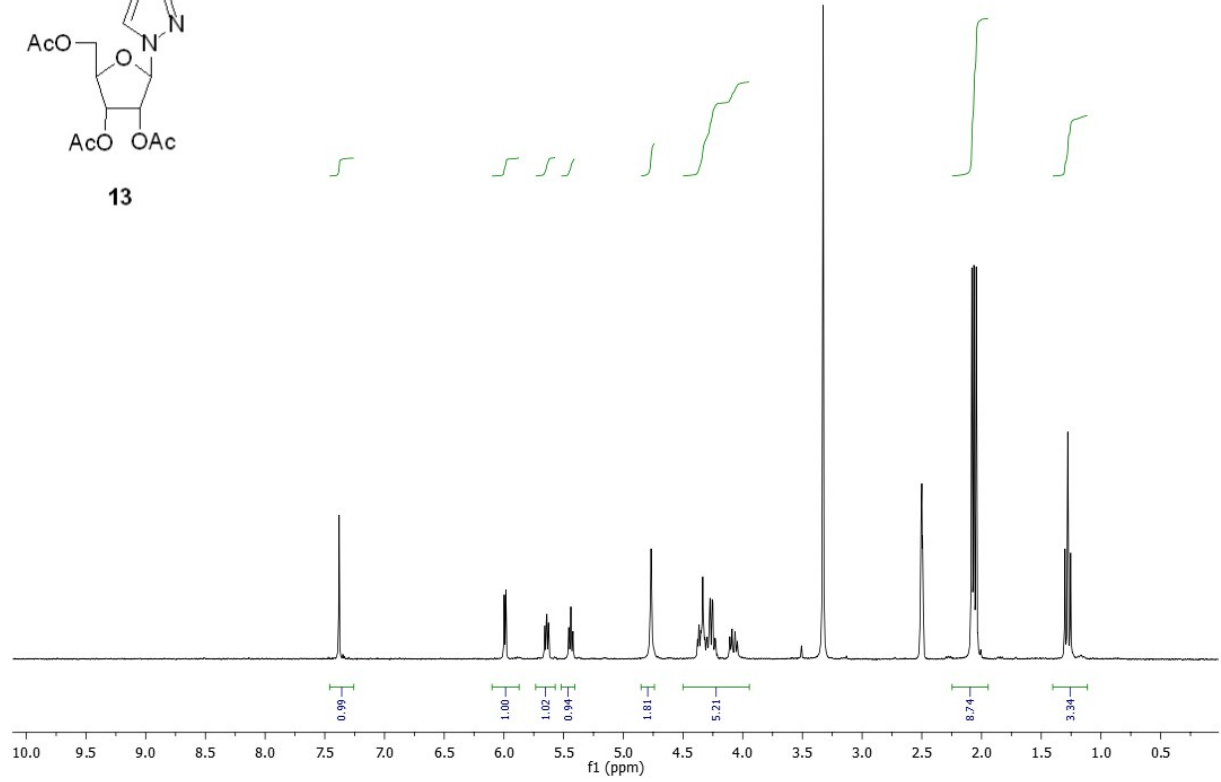
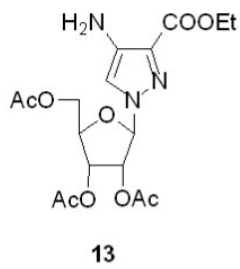
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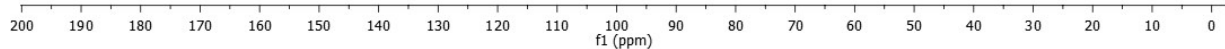
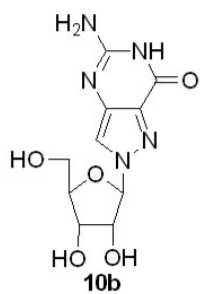
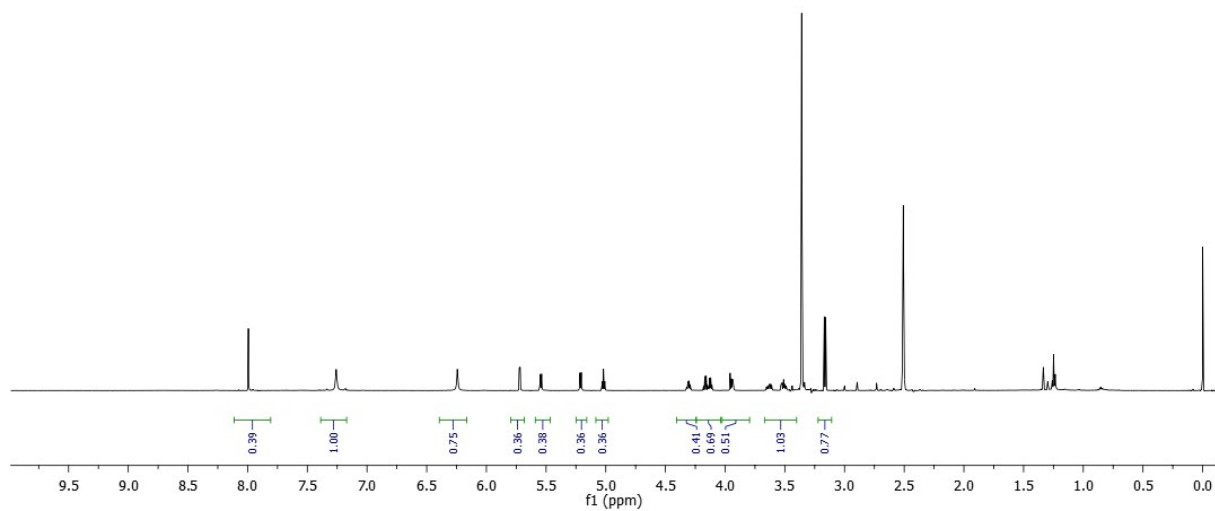
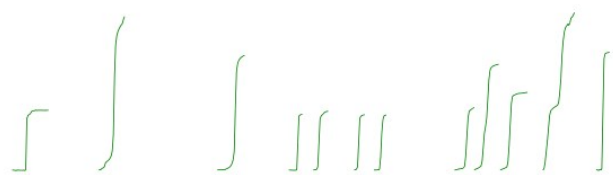
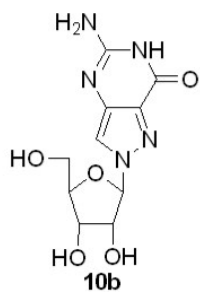
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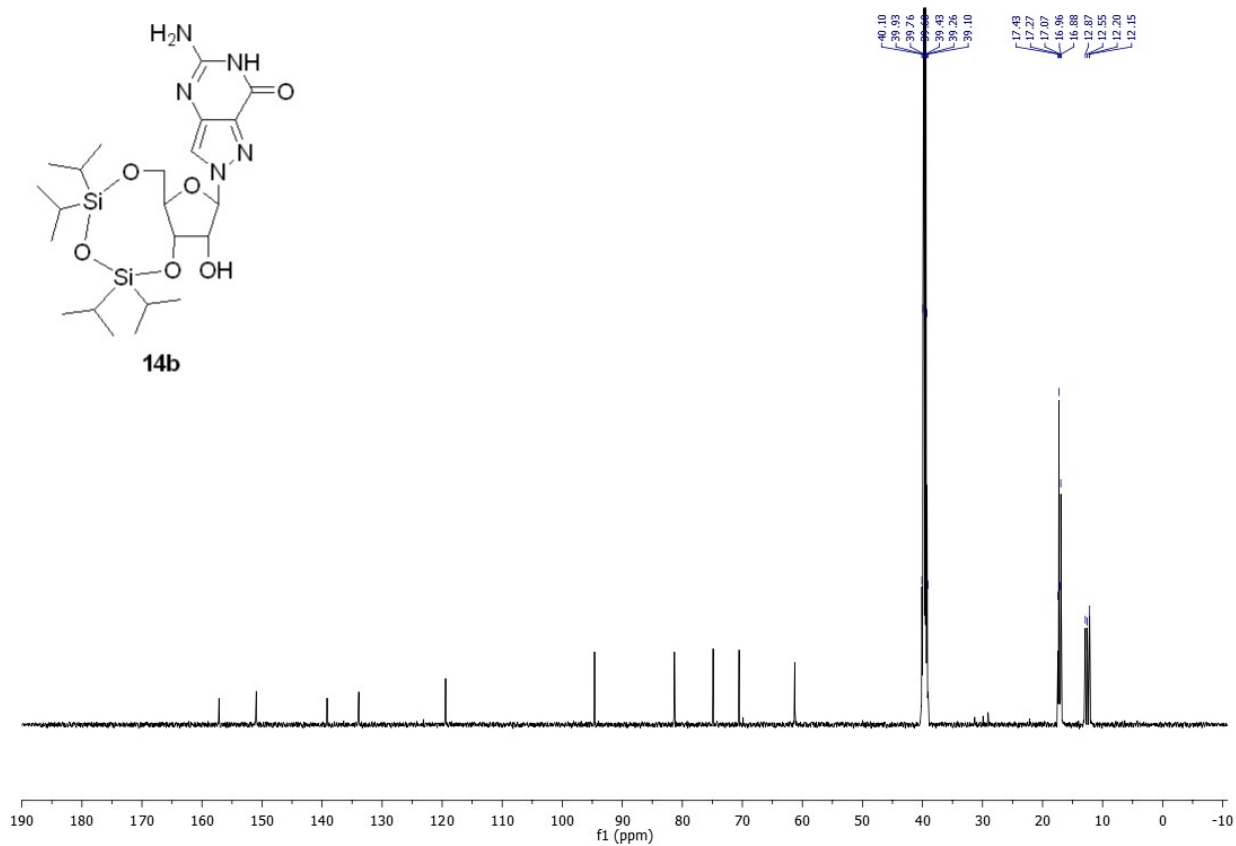
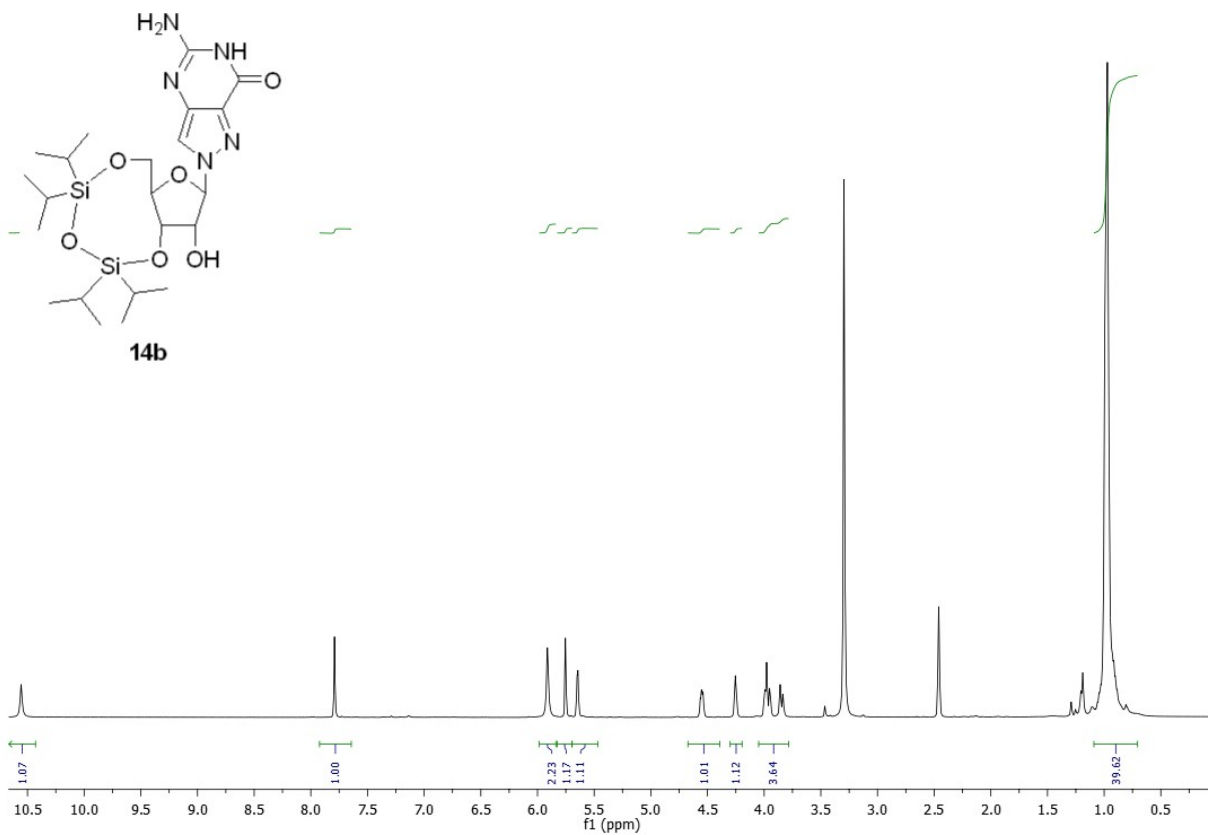
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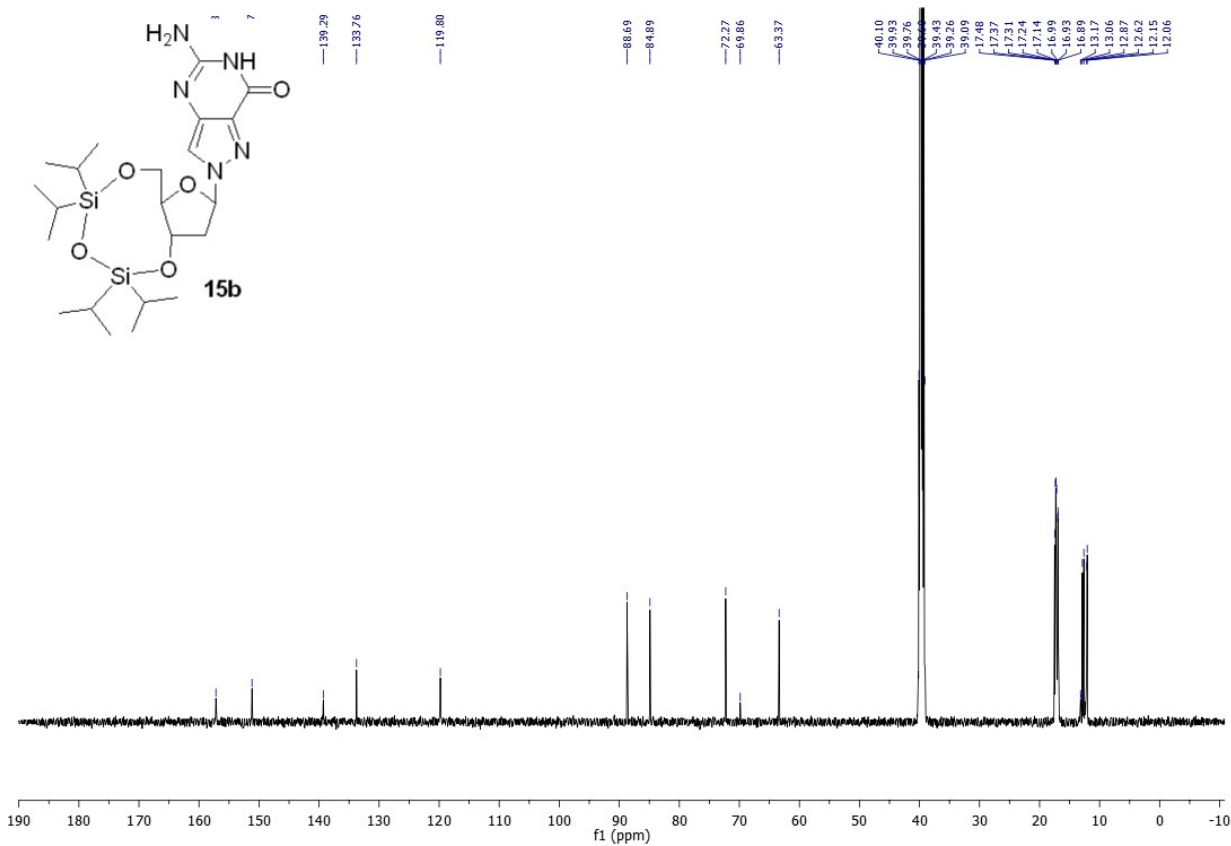
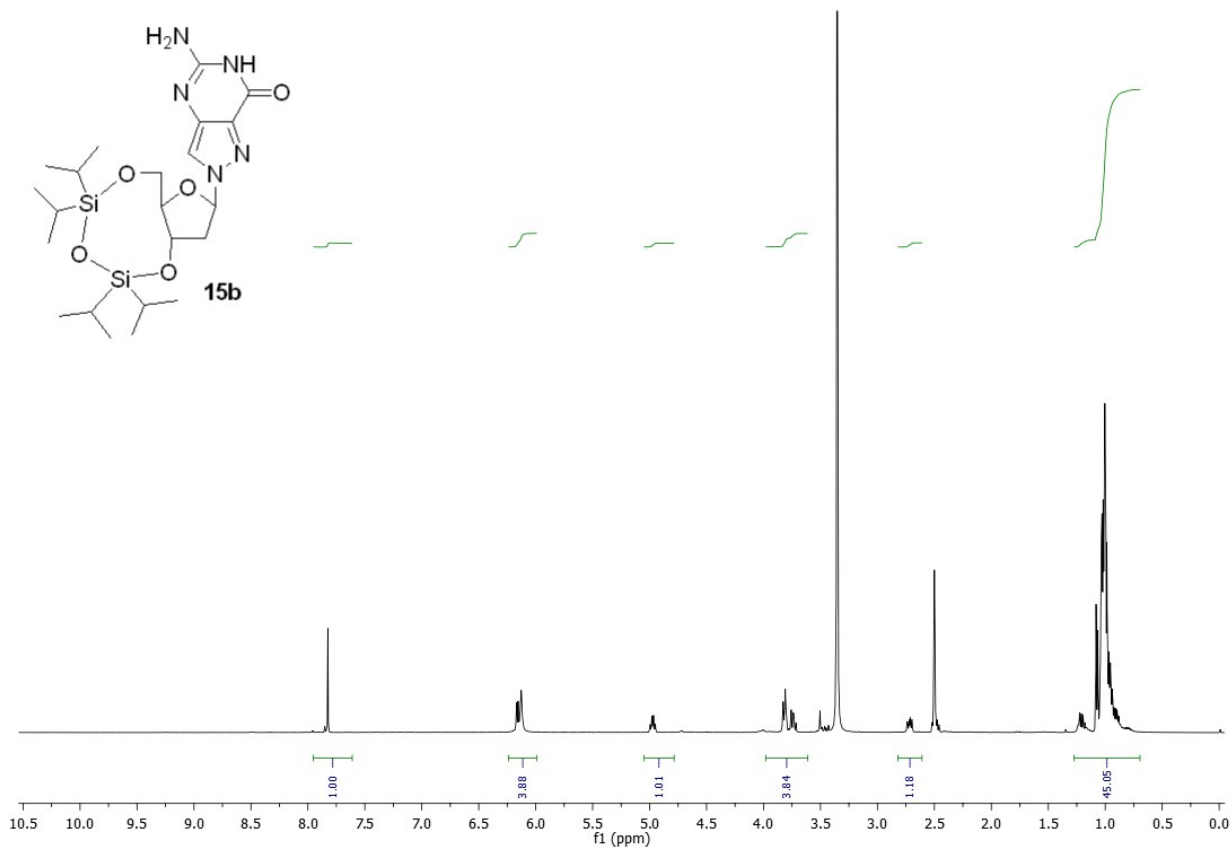


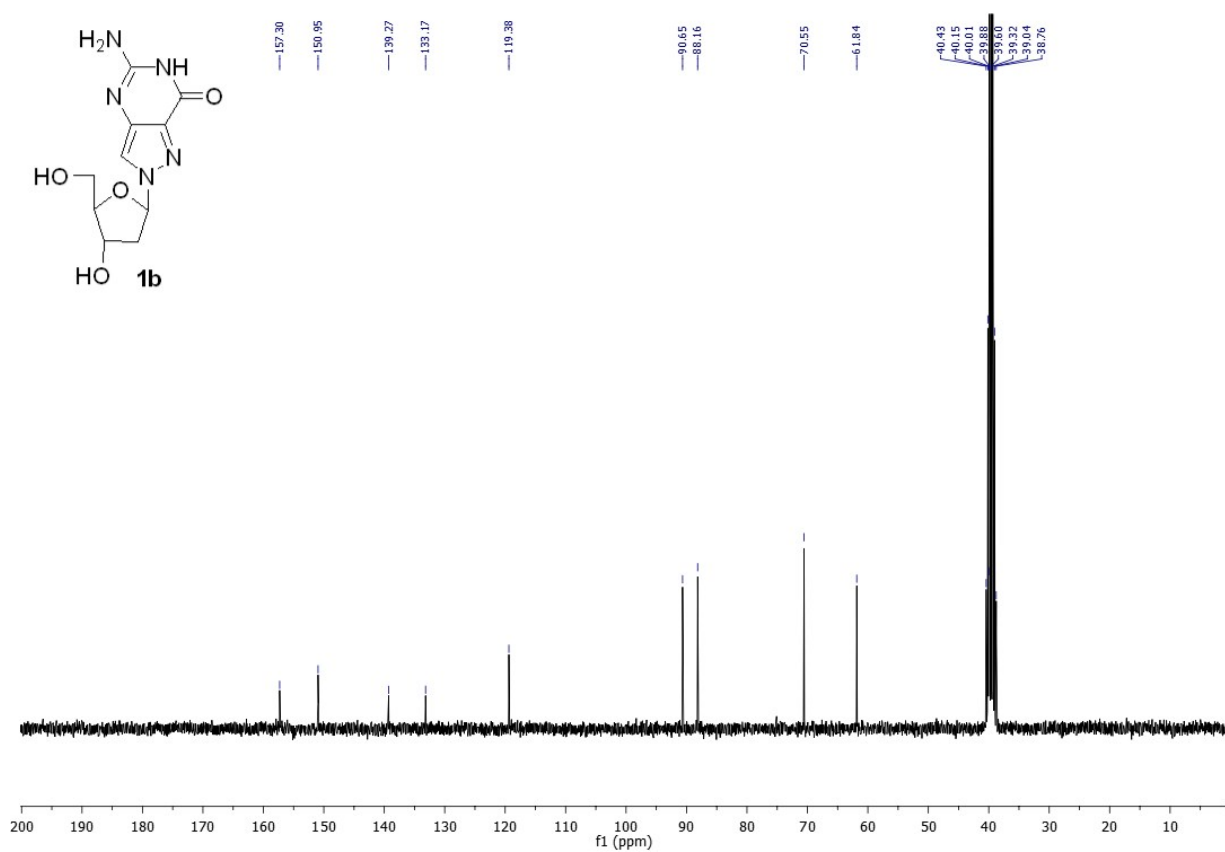
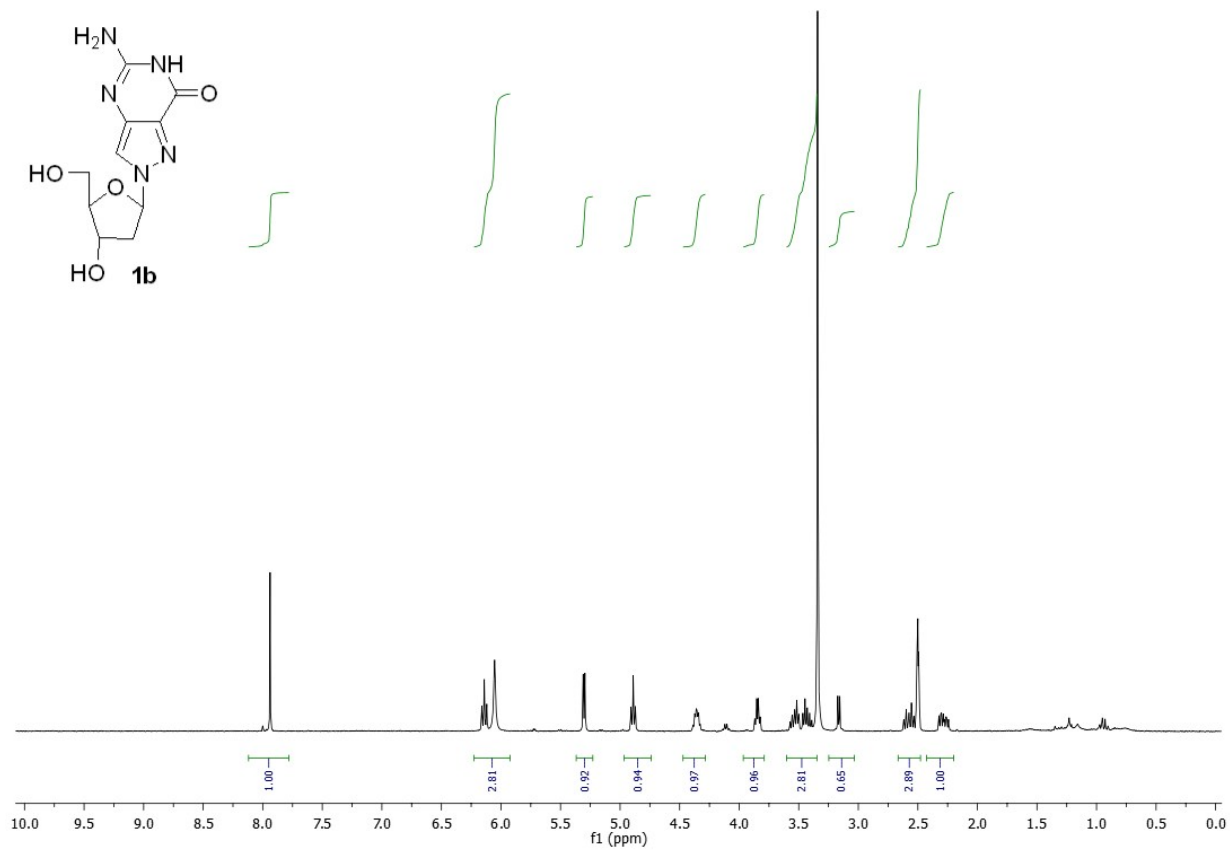


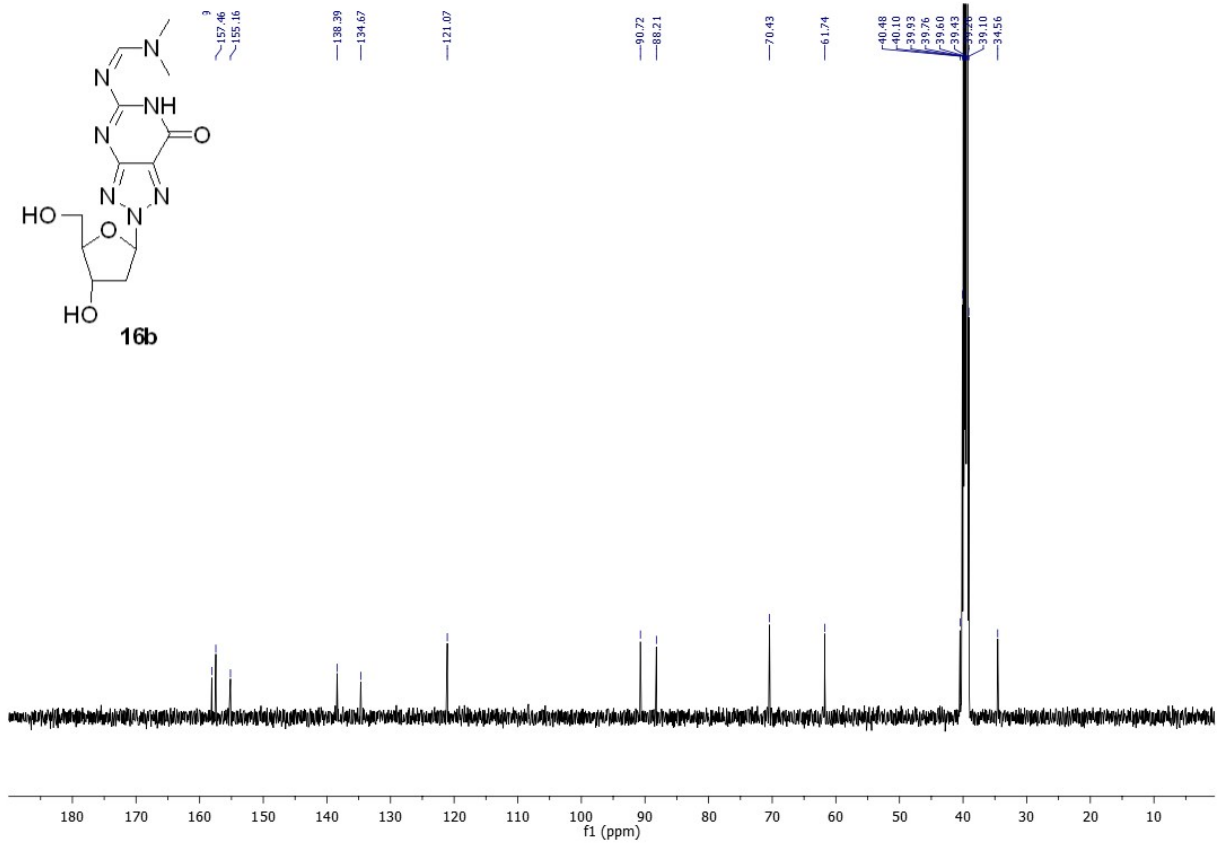
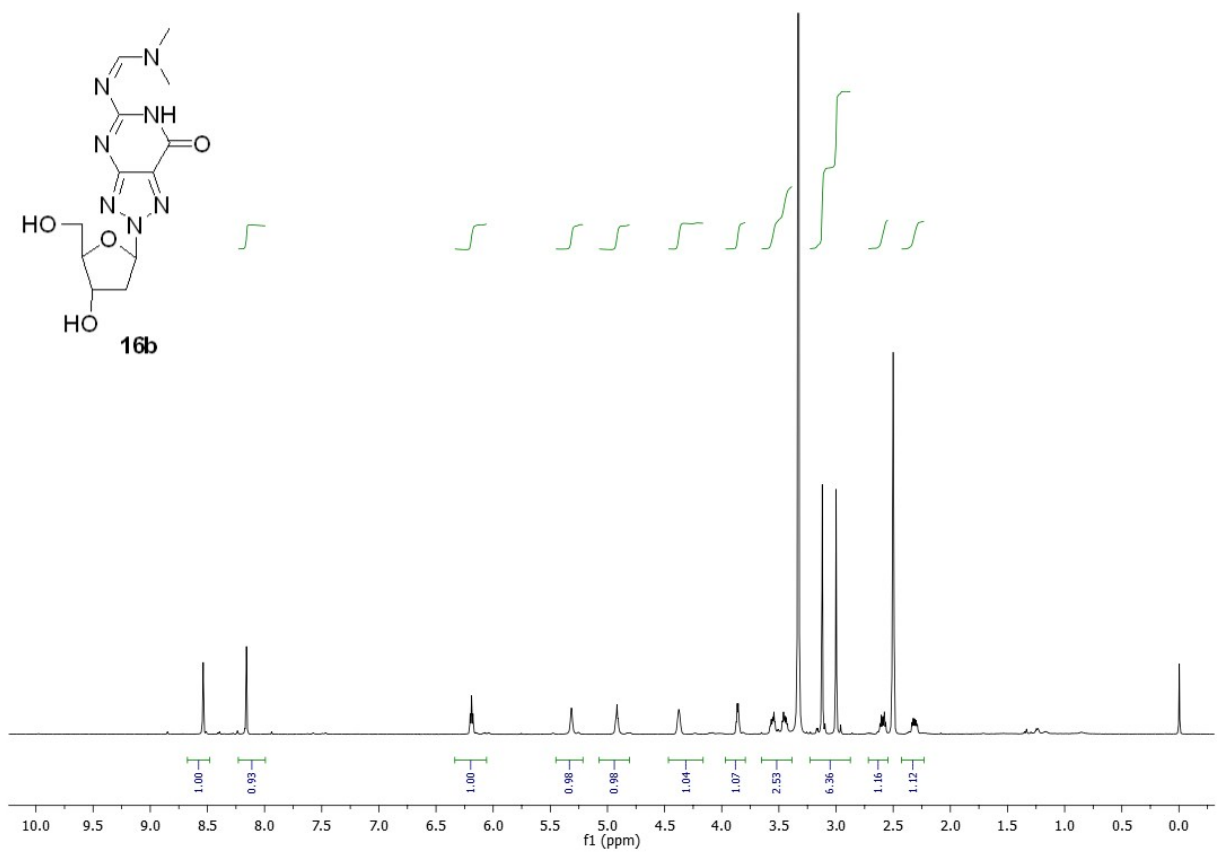


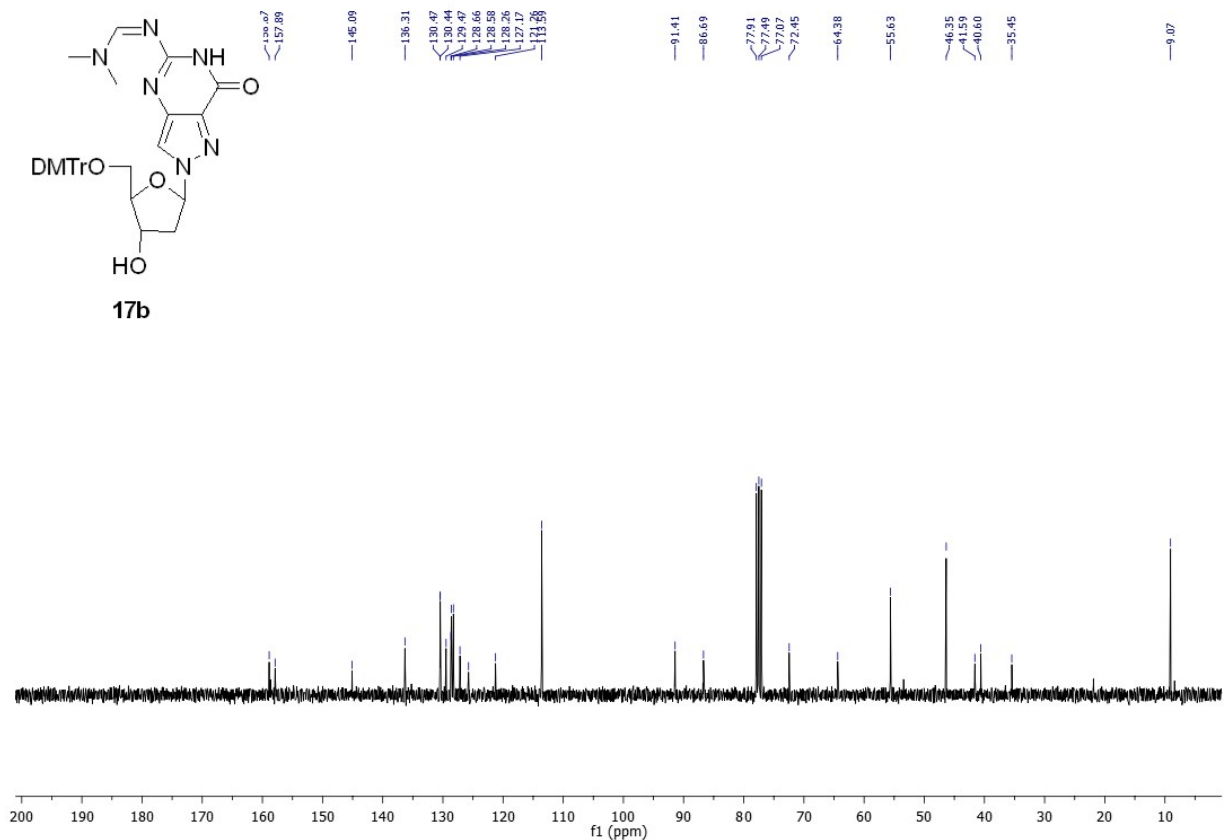
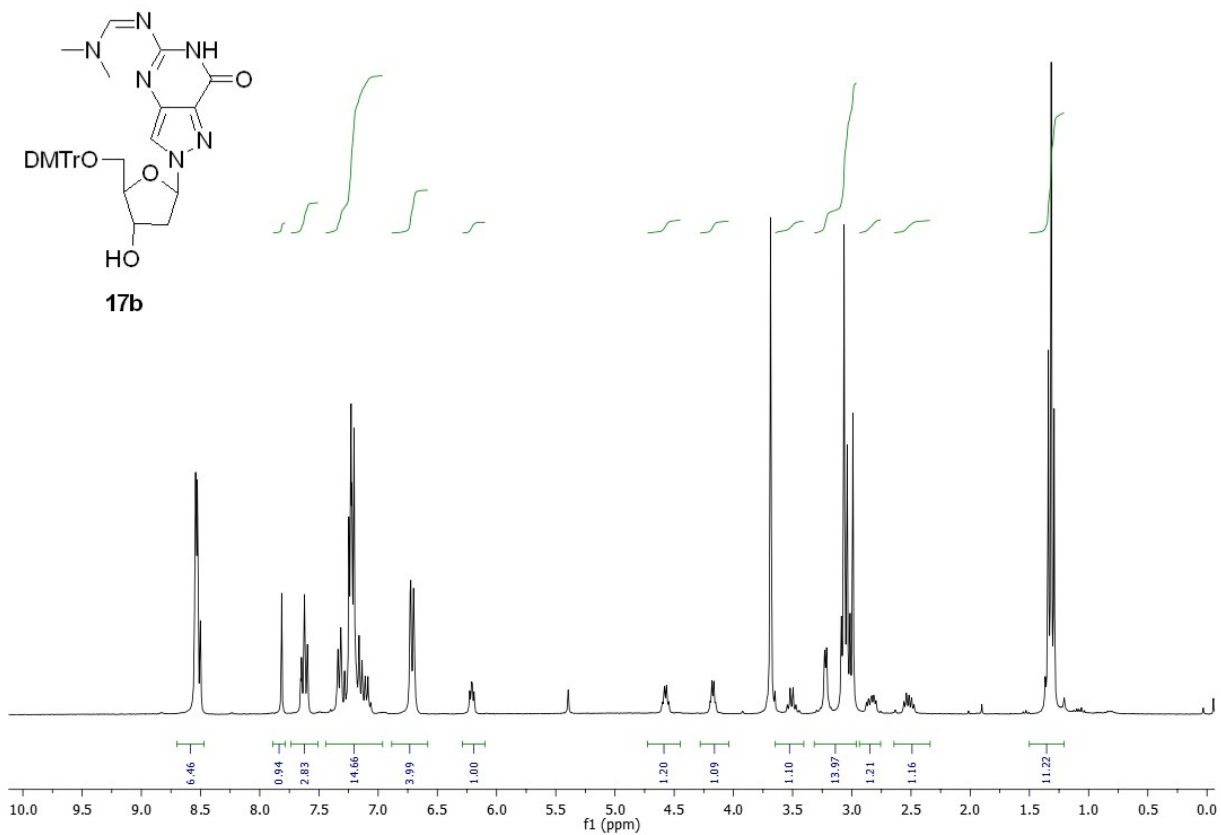




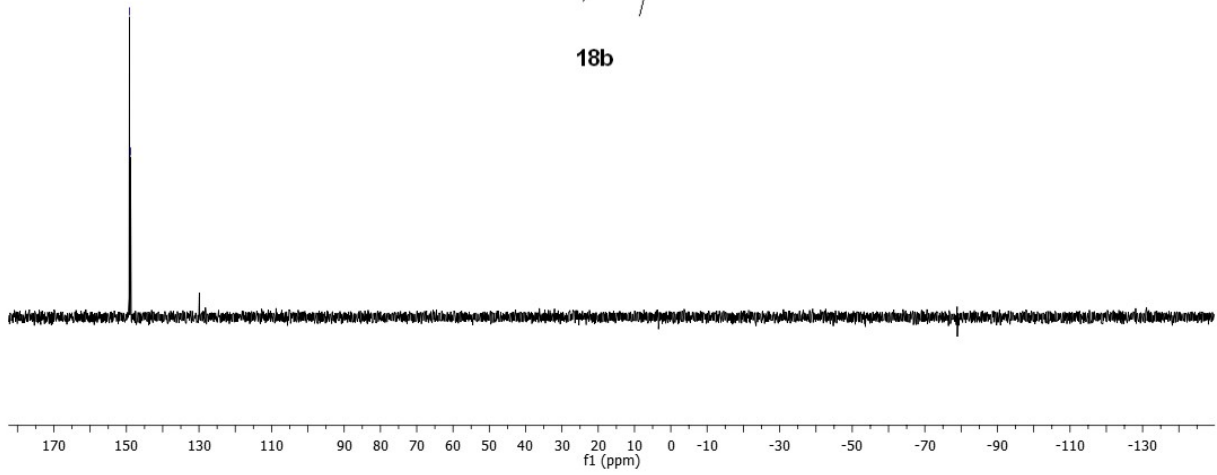
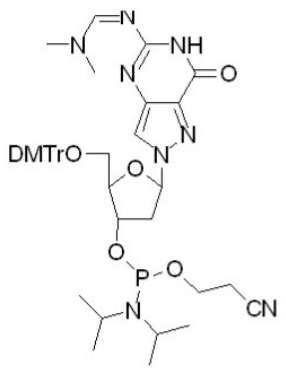








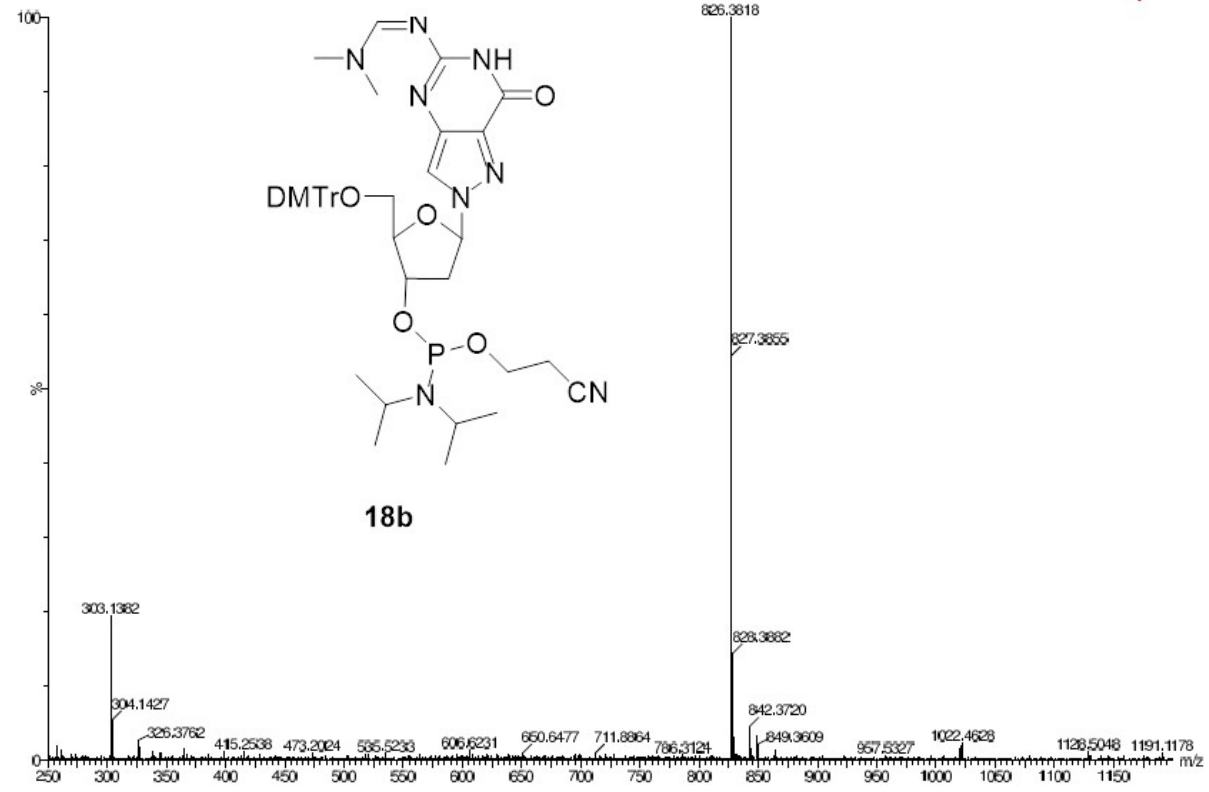
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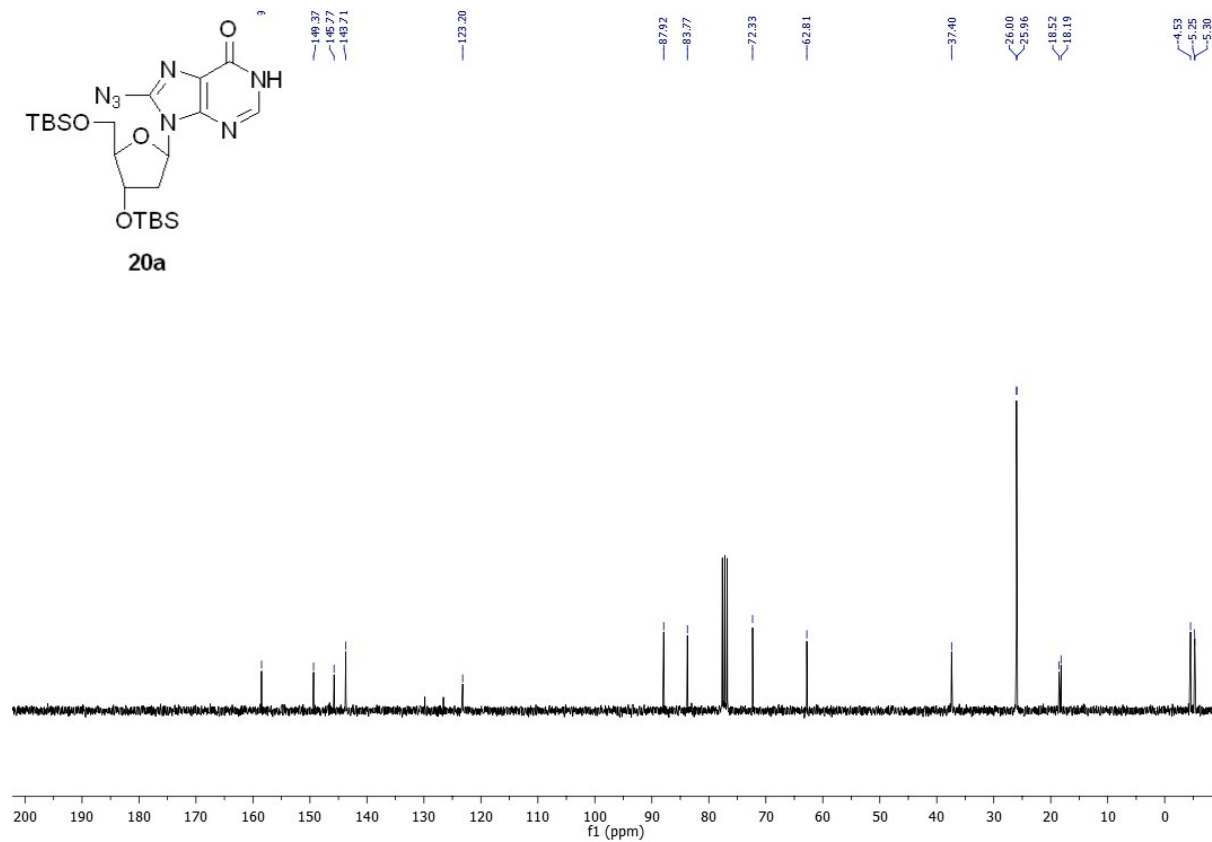
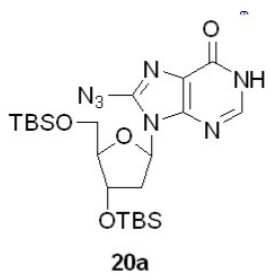
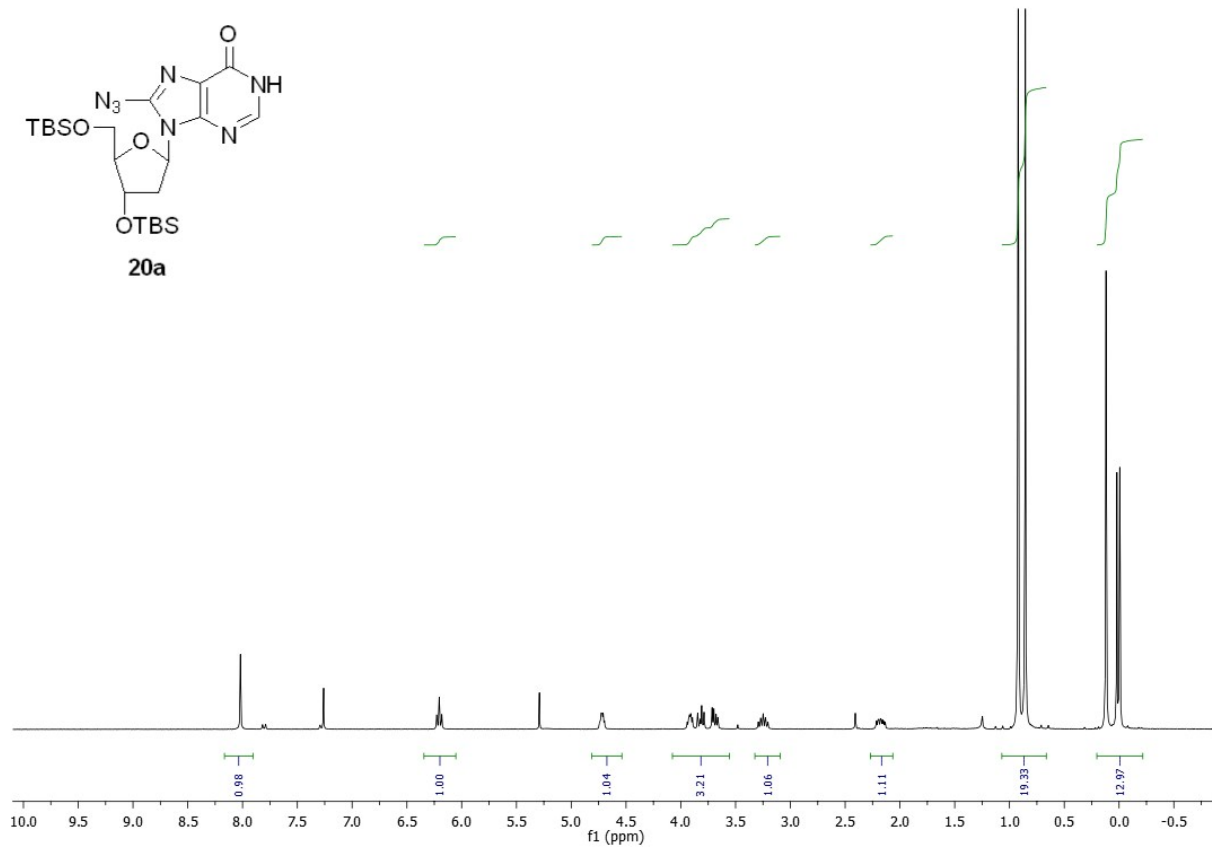
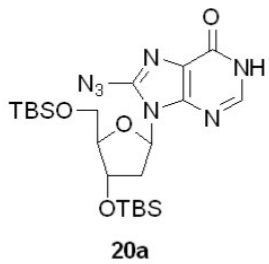


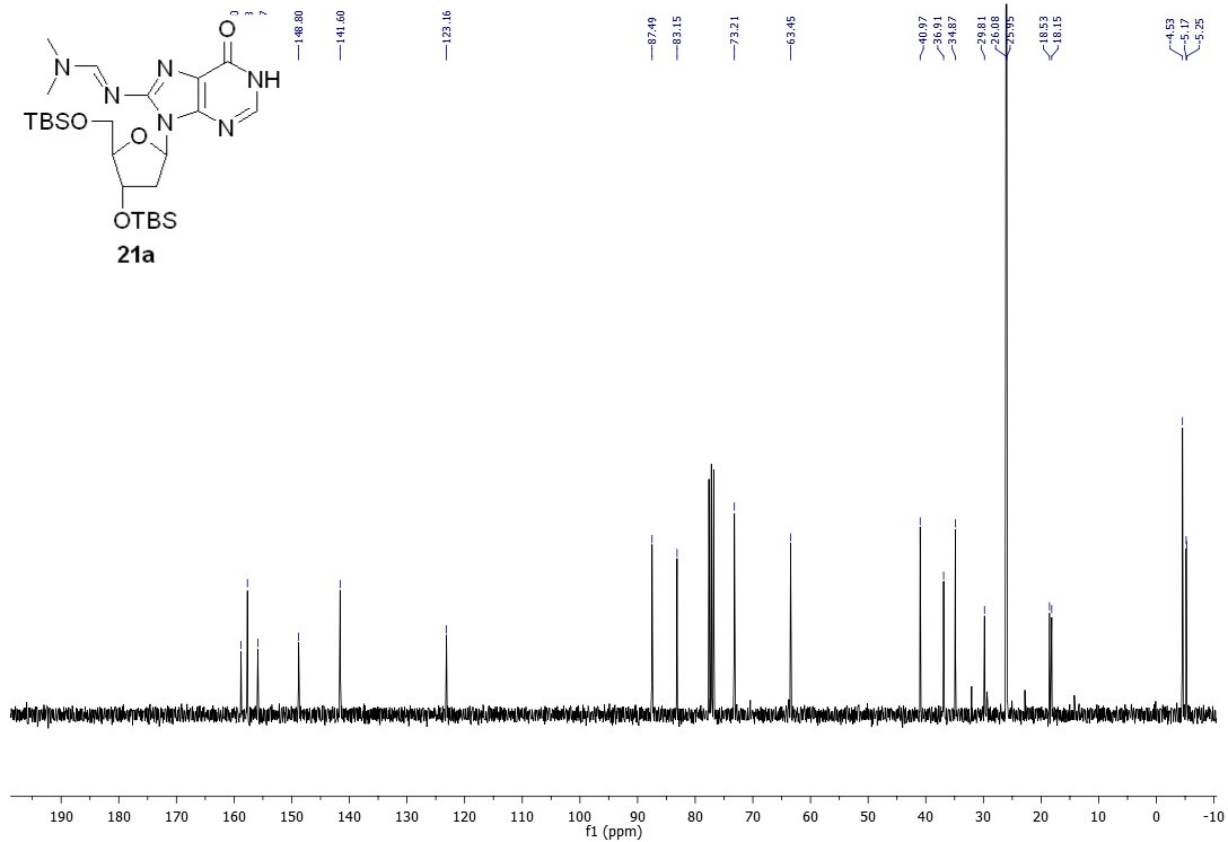
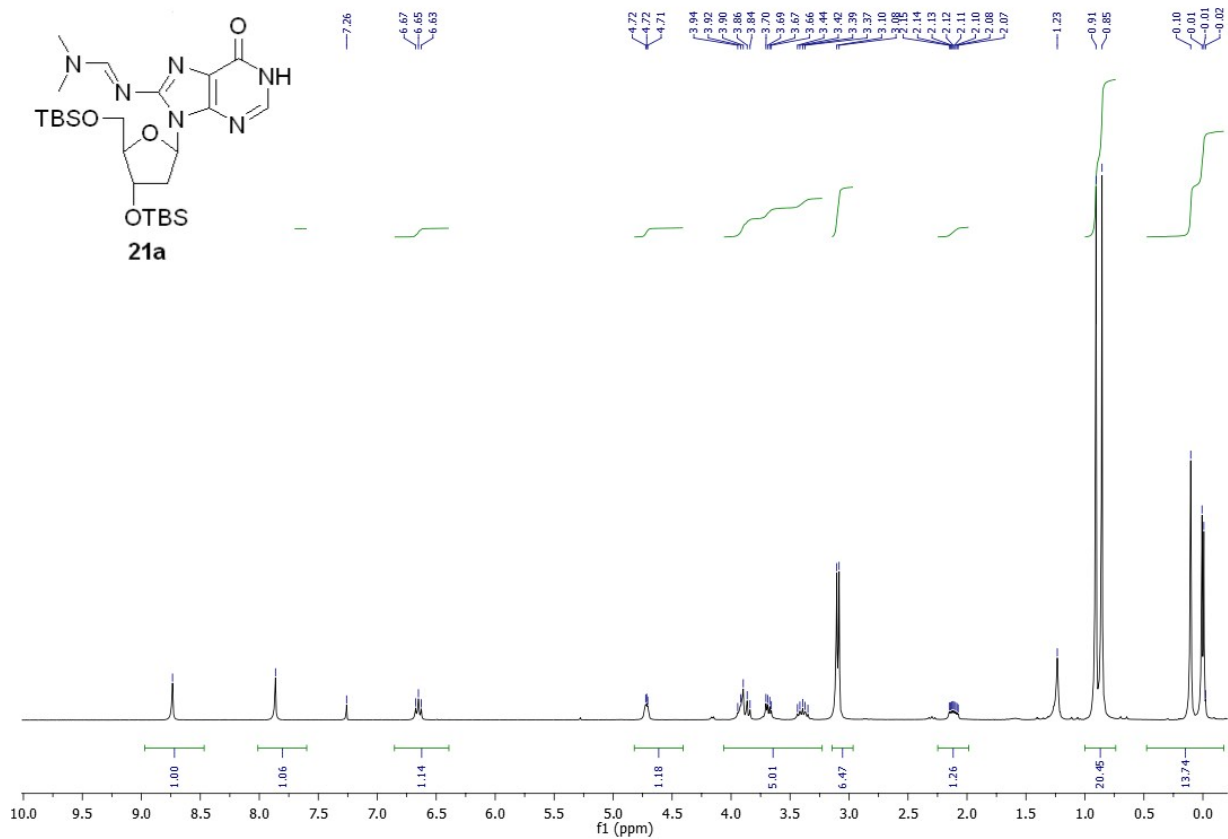
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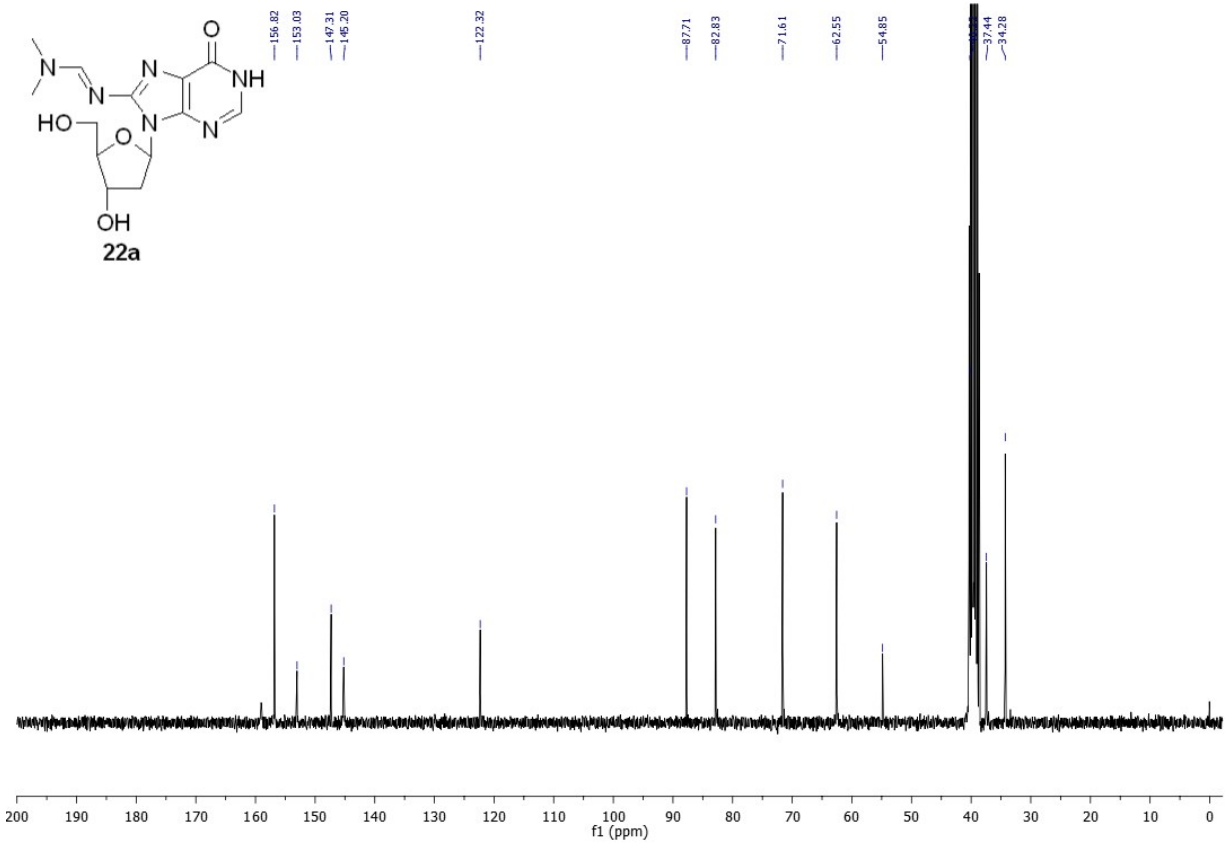
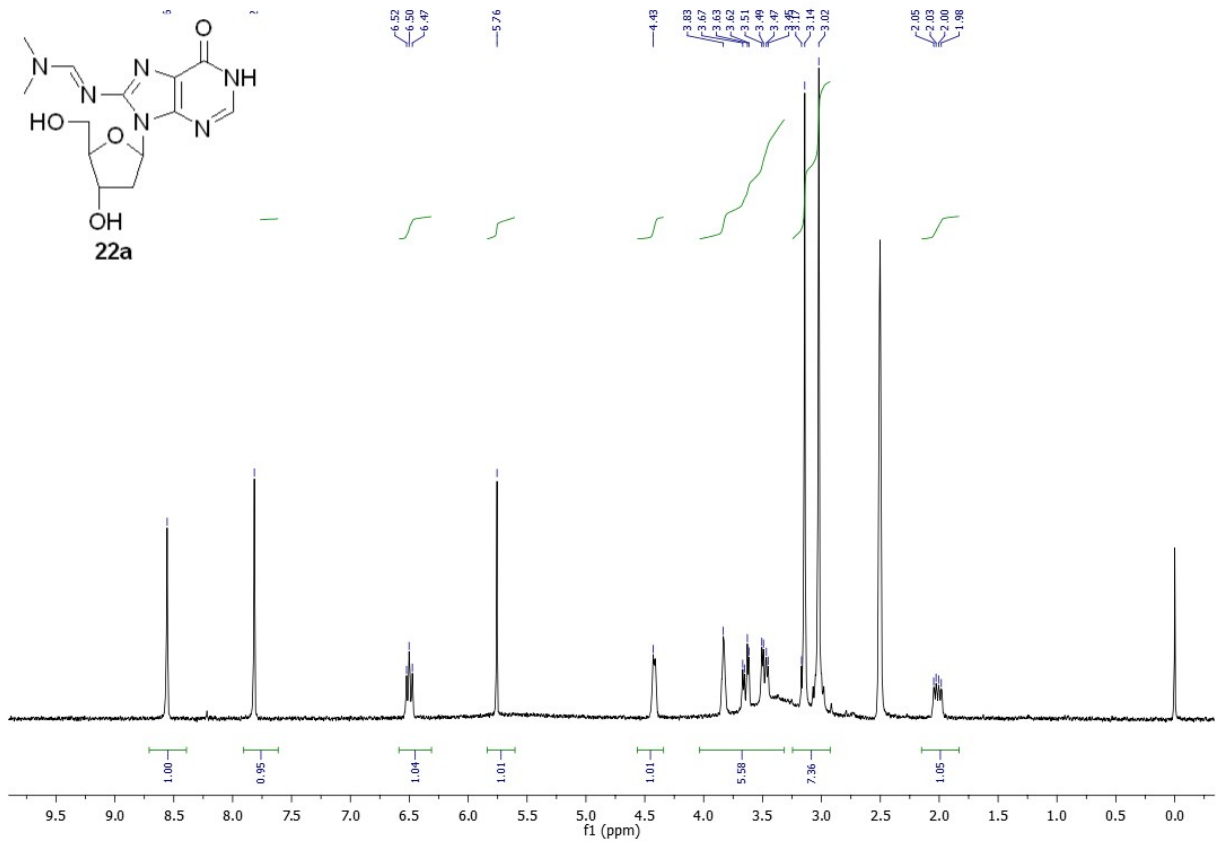
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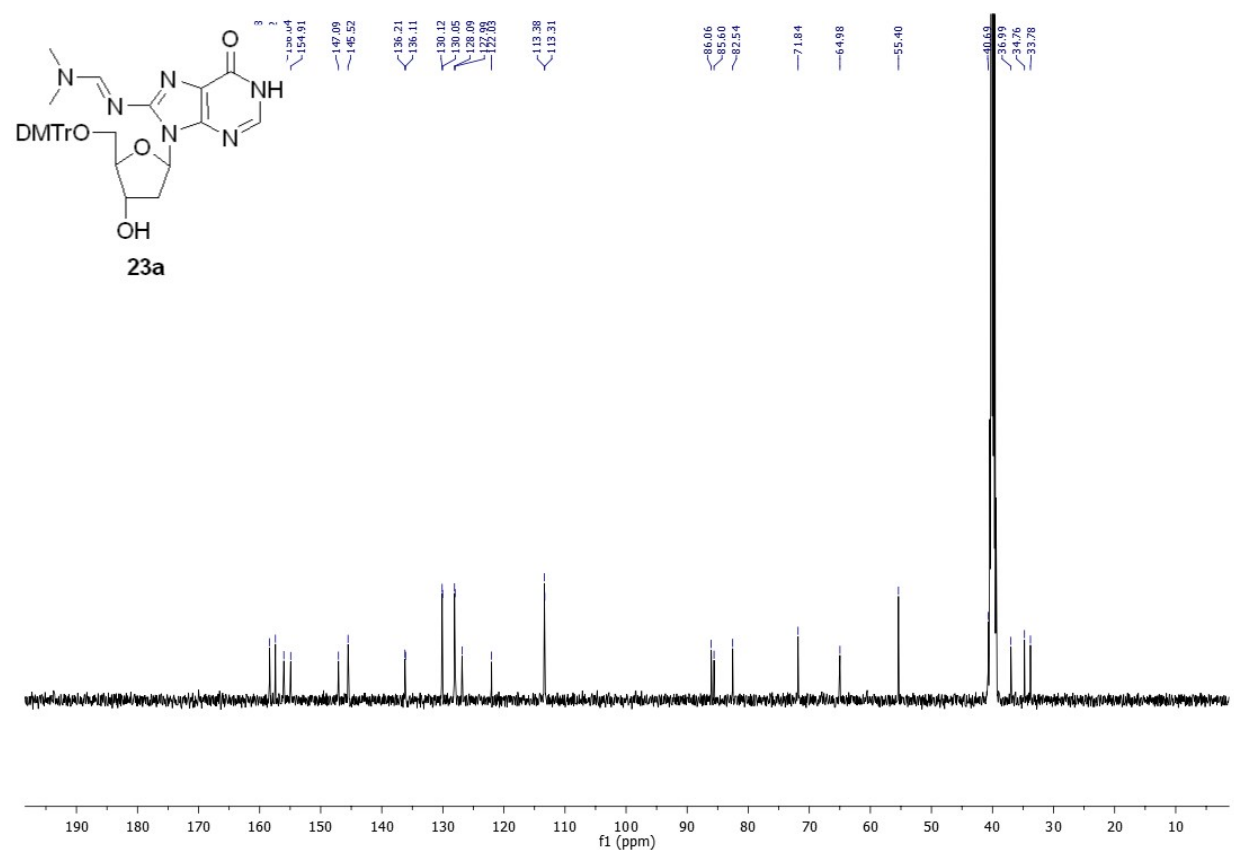
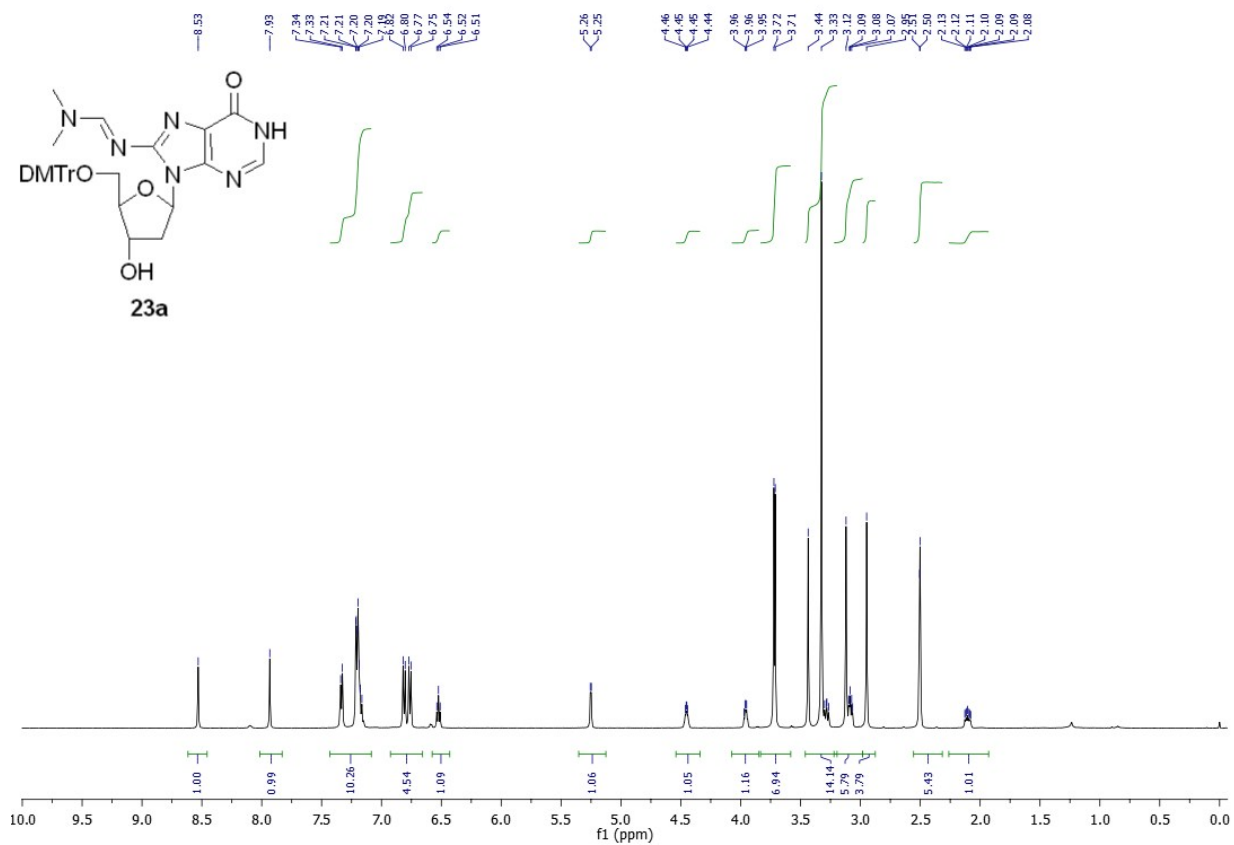
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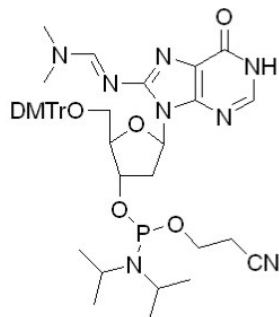




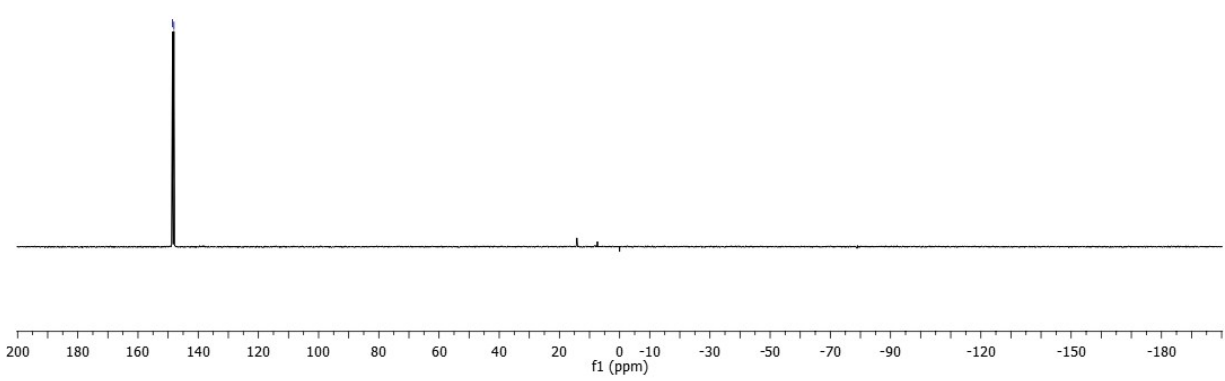




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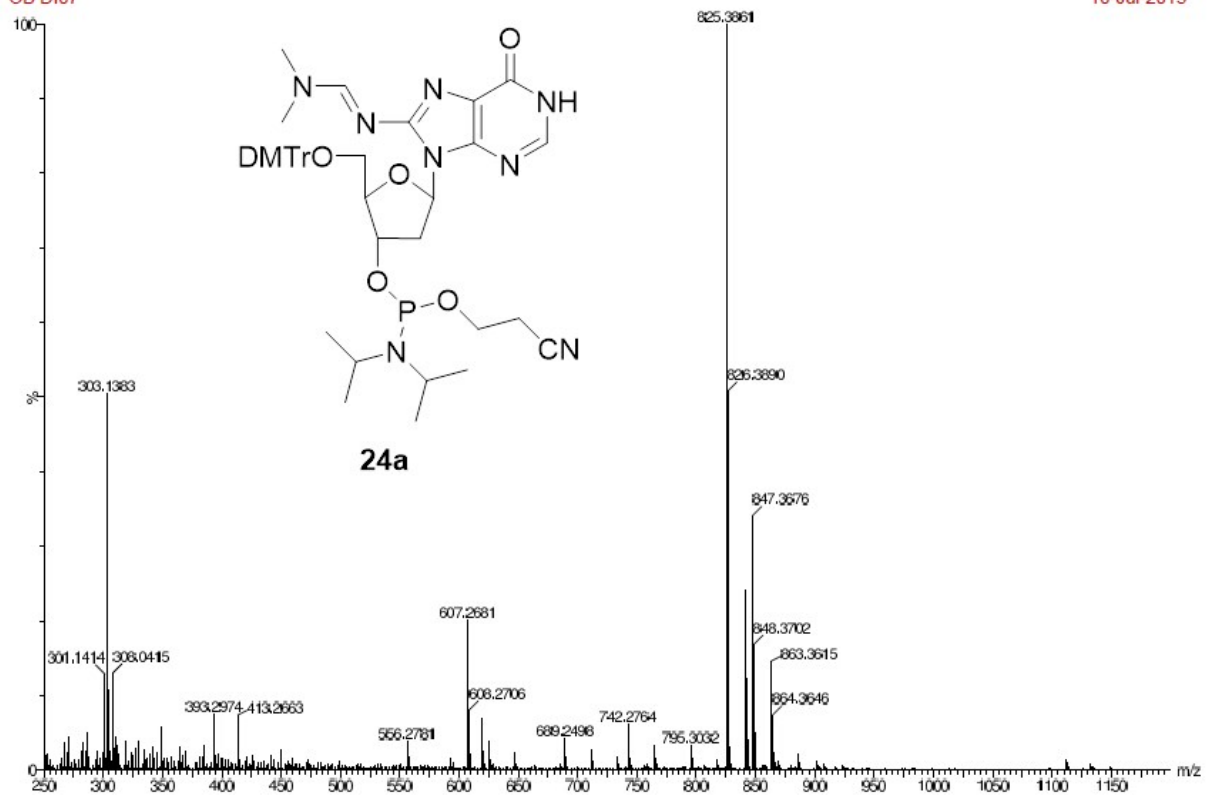
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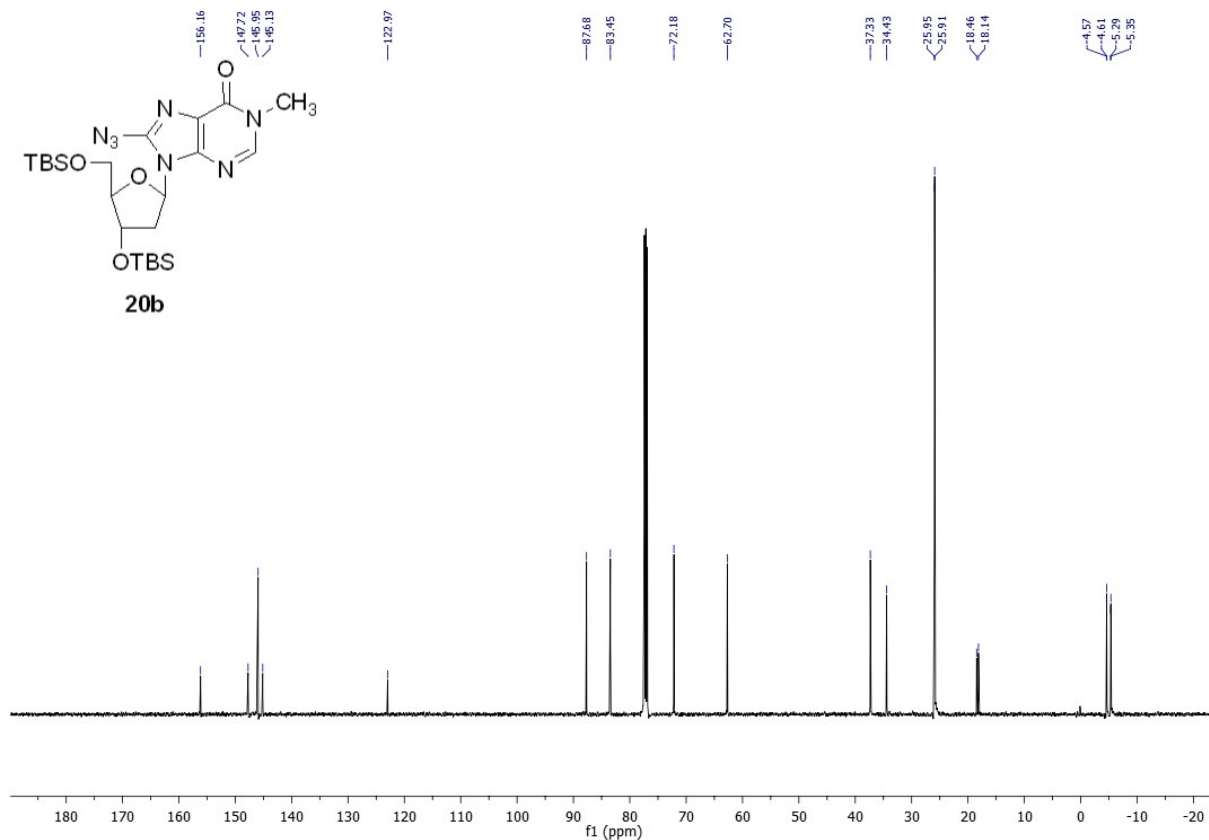
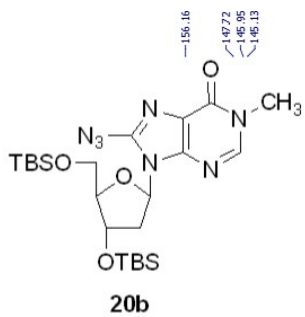
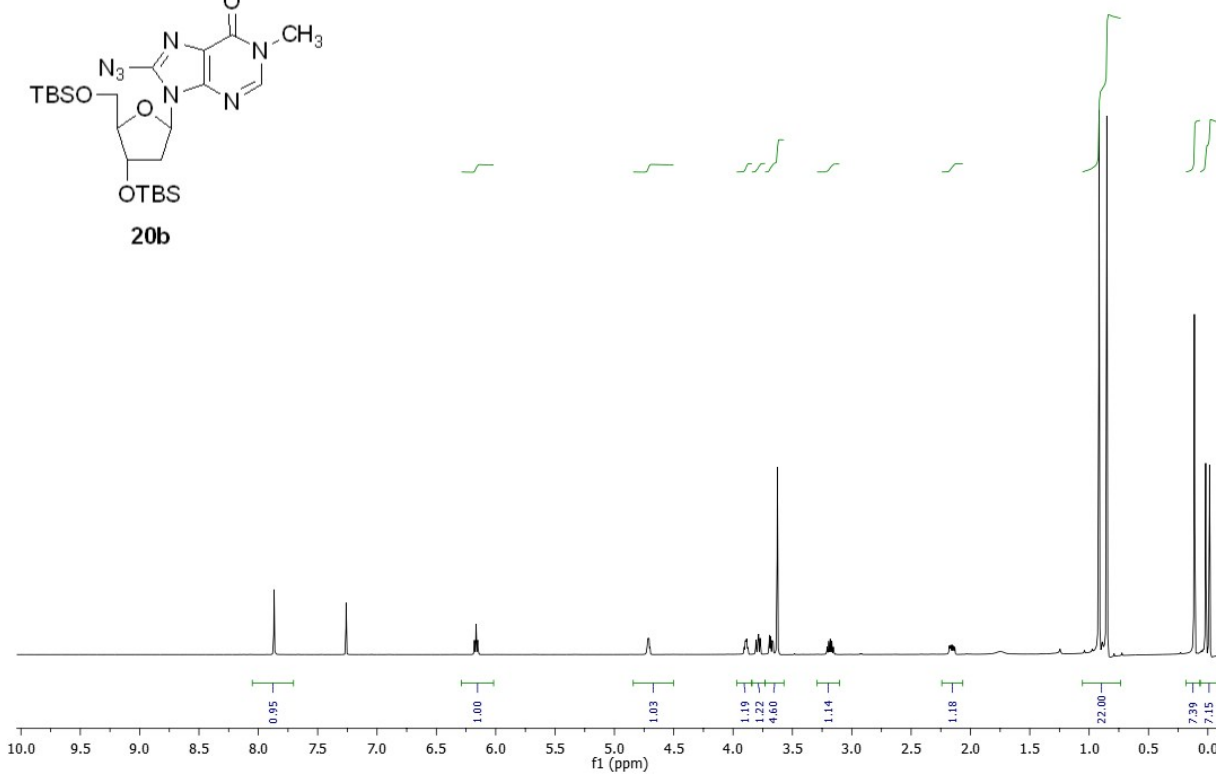
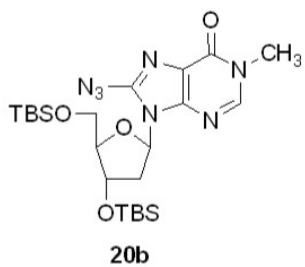


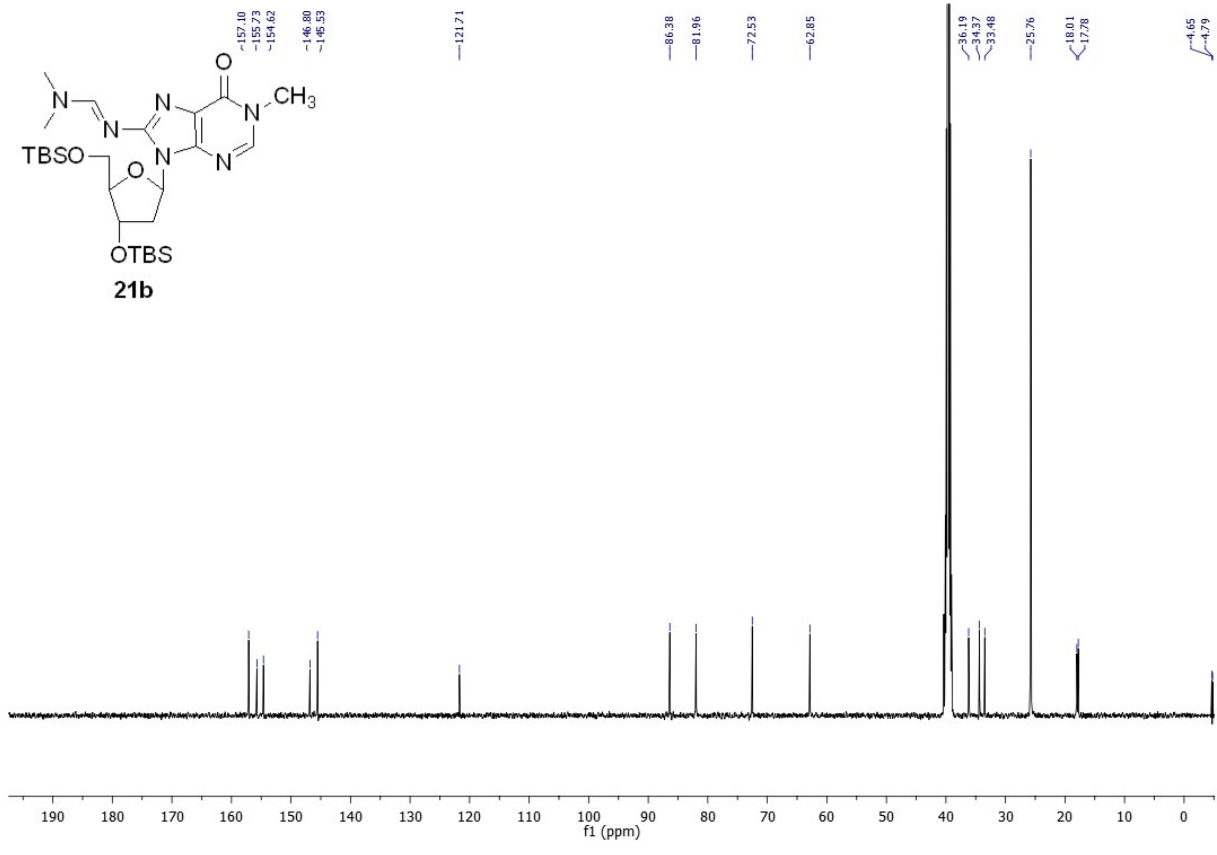
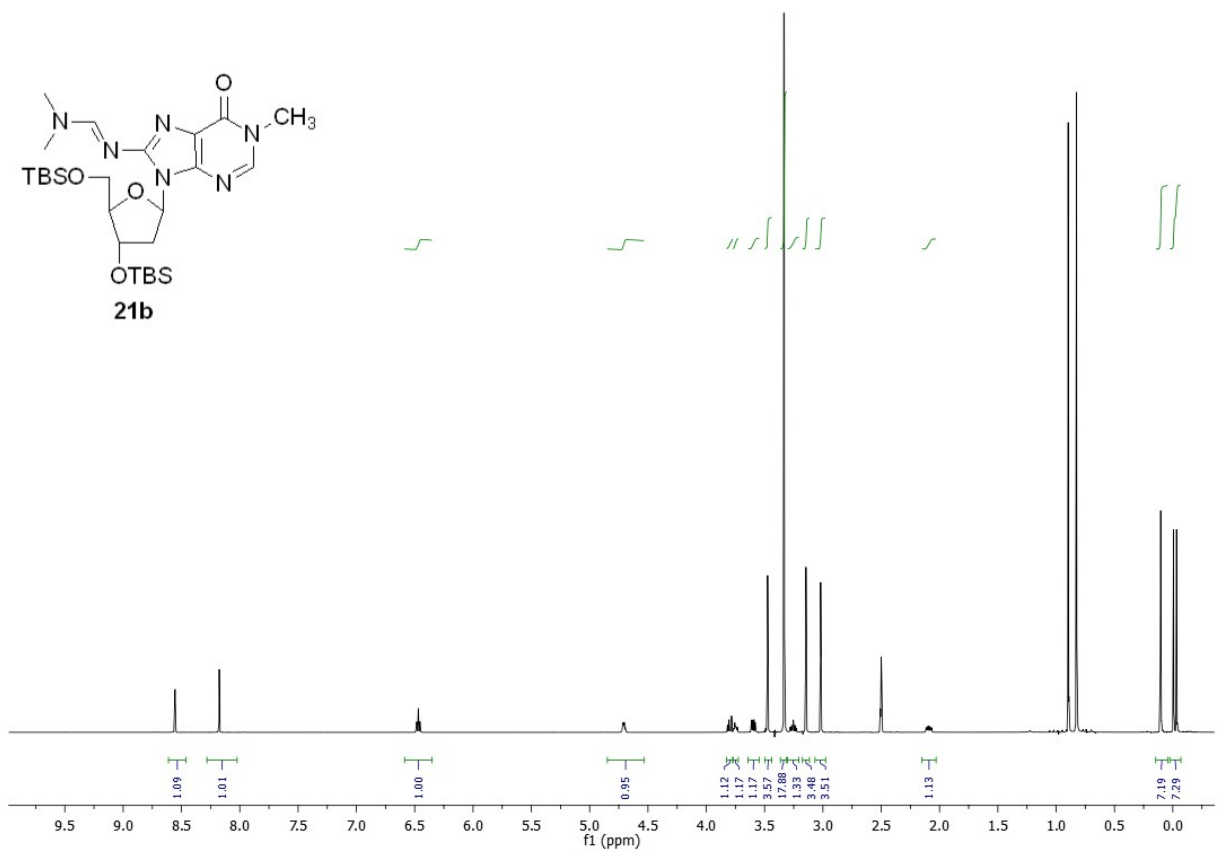
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OB DI07

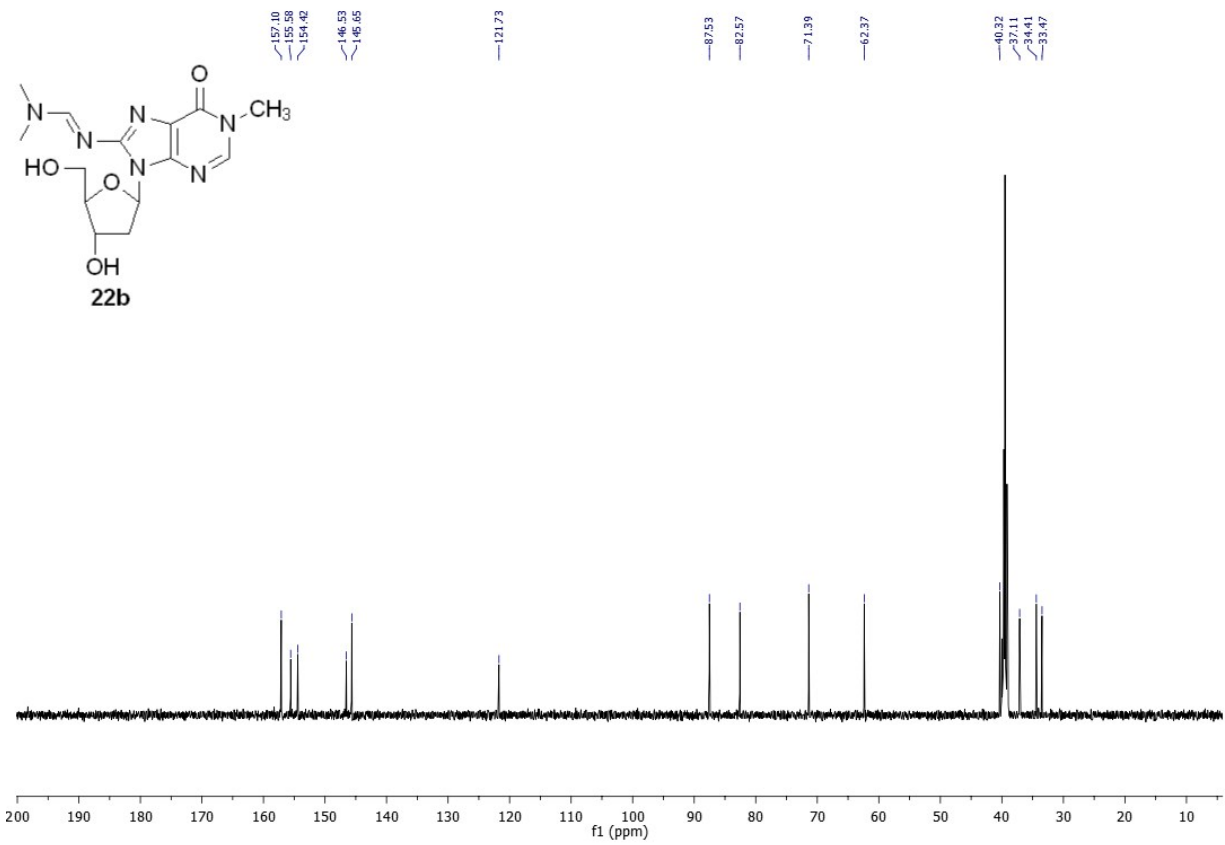
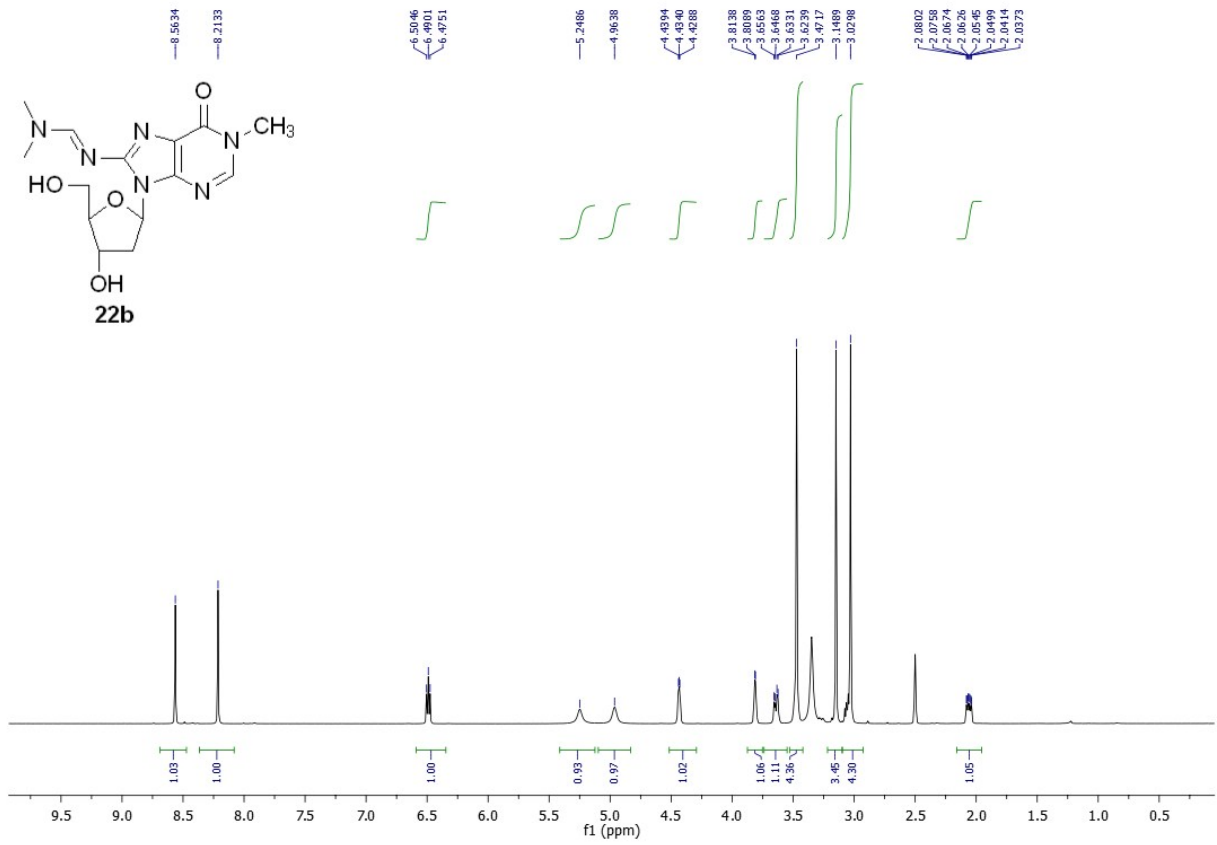
accurate mass

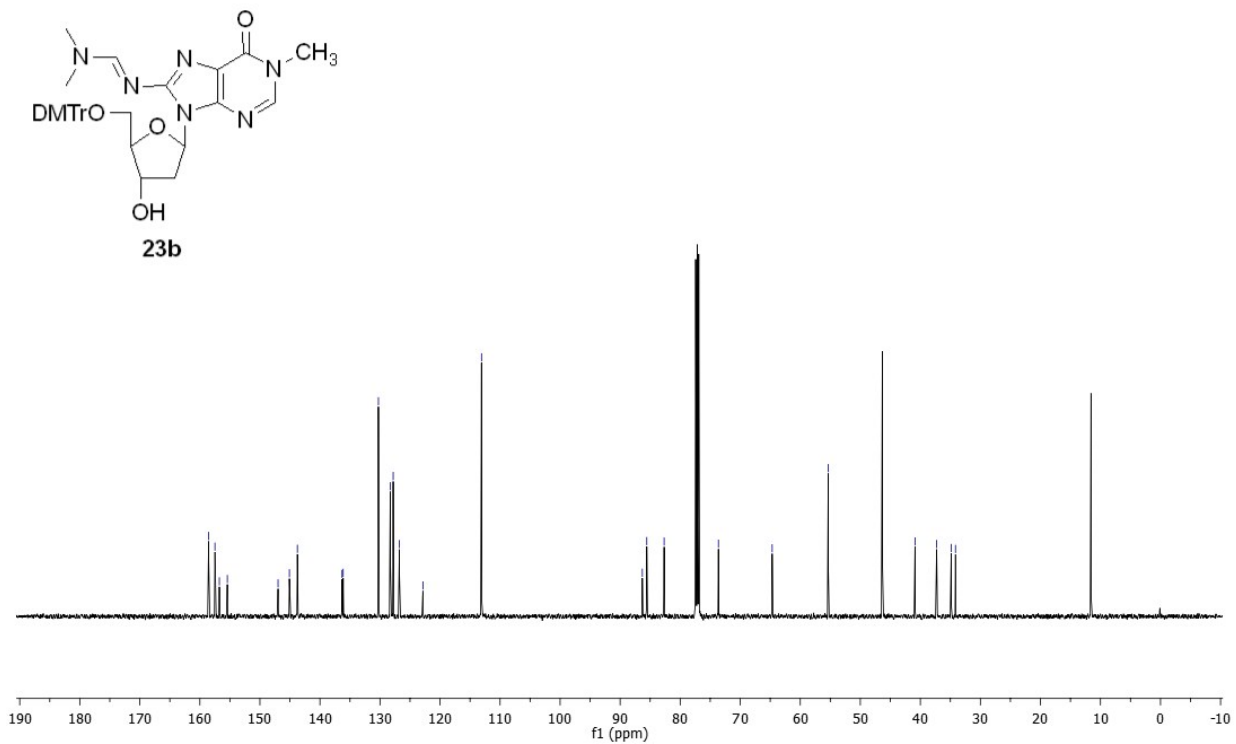
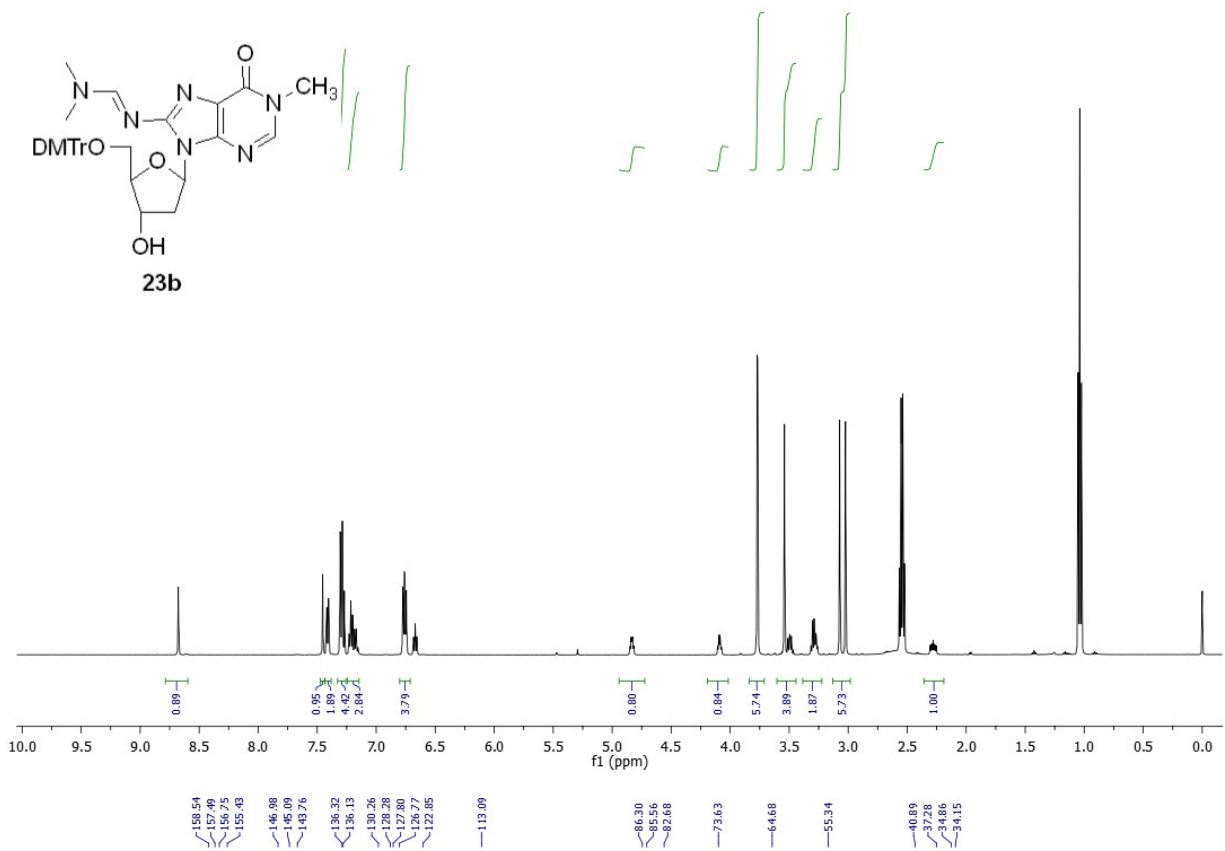
ES+
10-Jul-2015



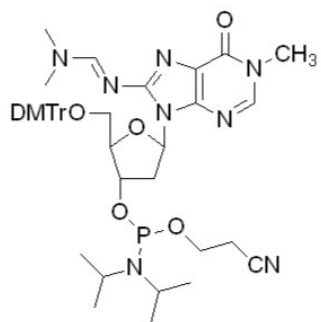




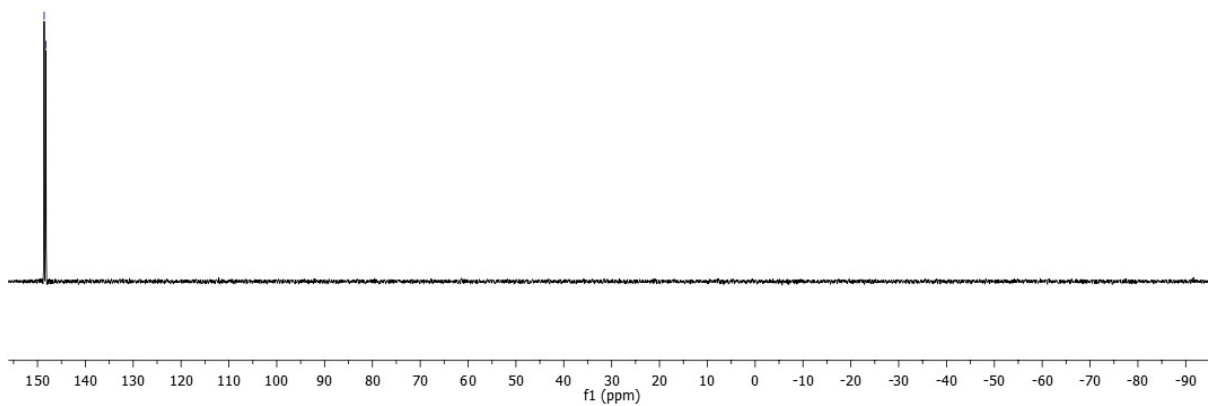




148.61
148.24



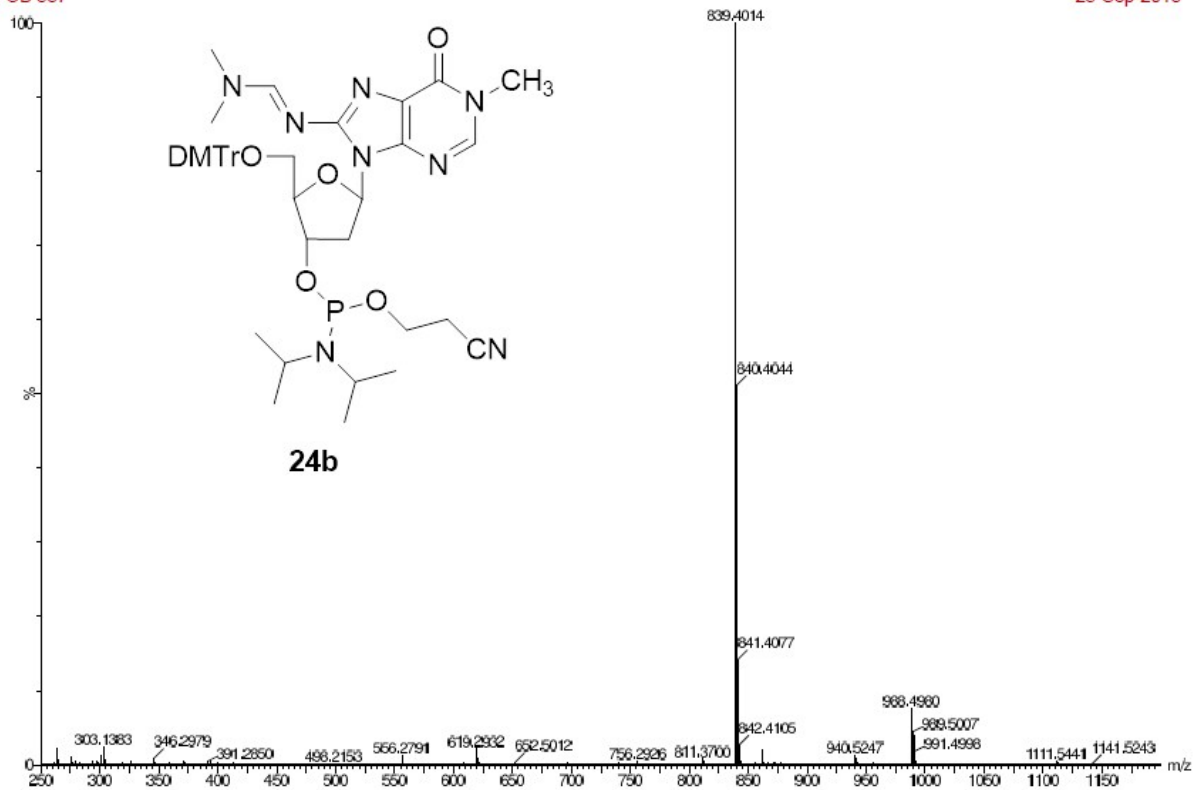
24b

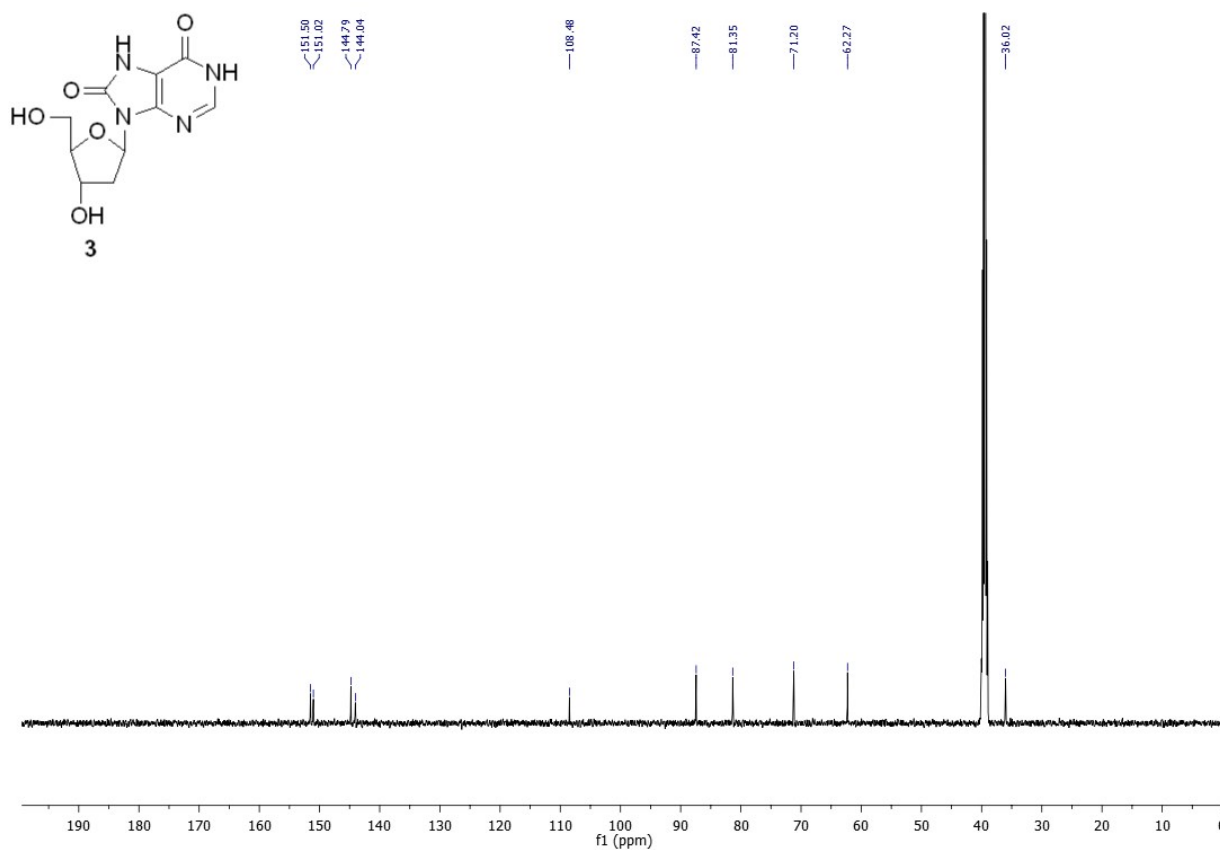
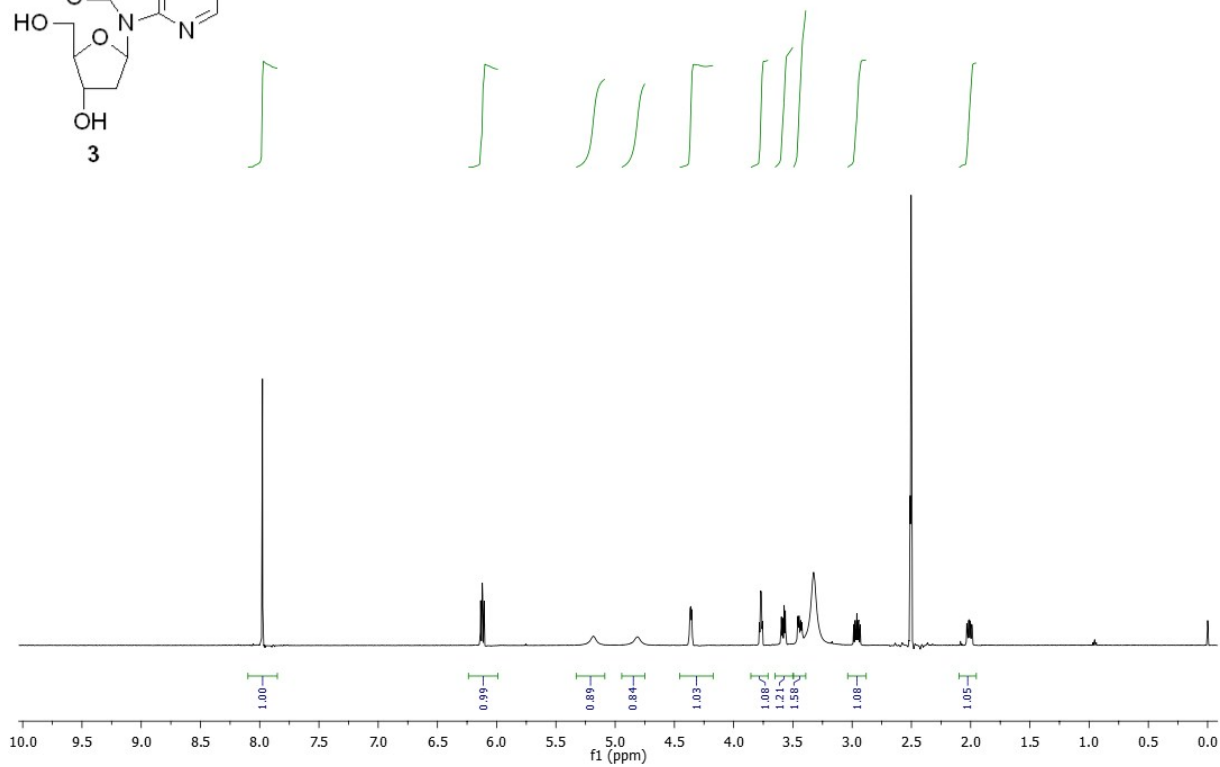
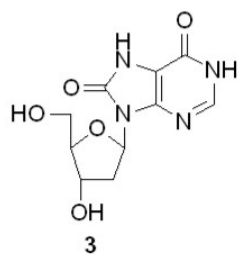


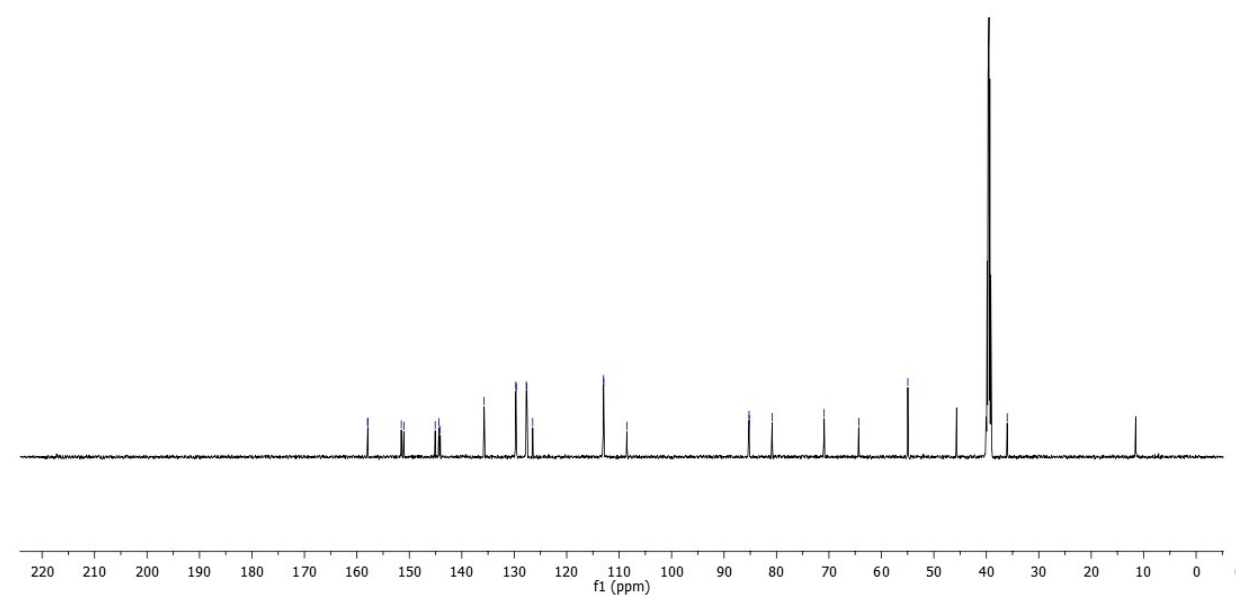
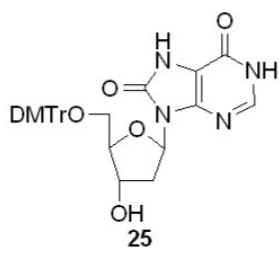
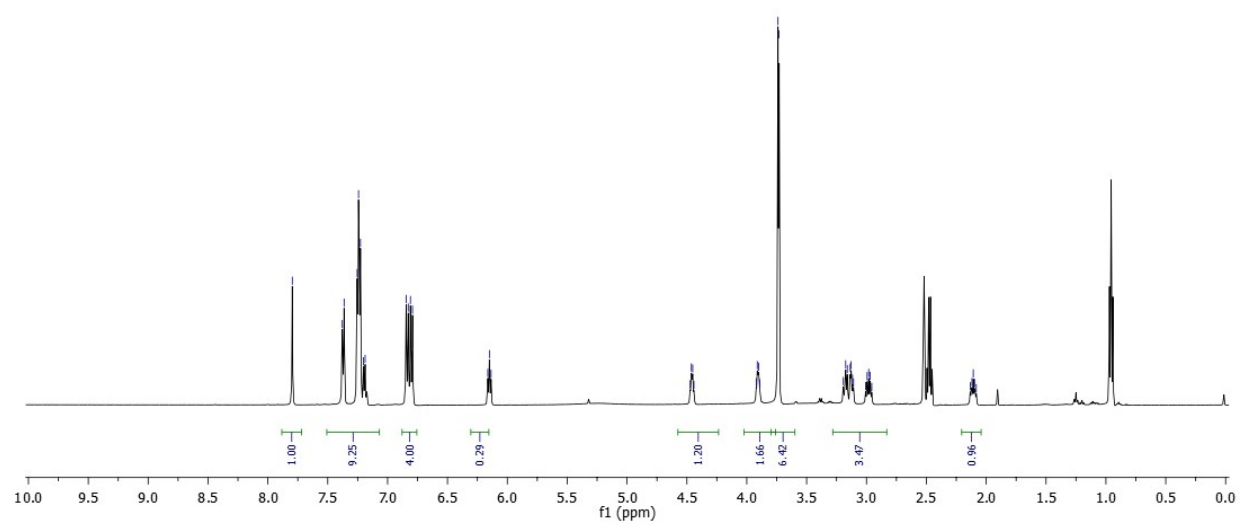
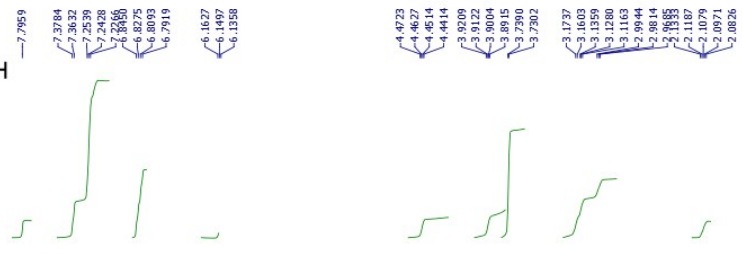
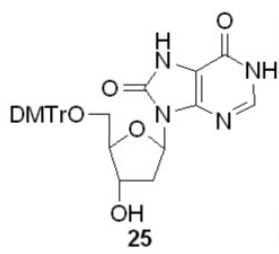
34790
OB 537

accurate mass

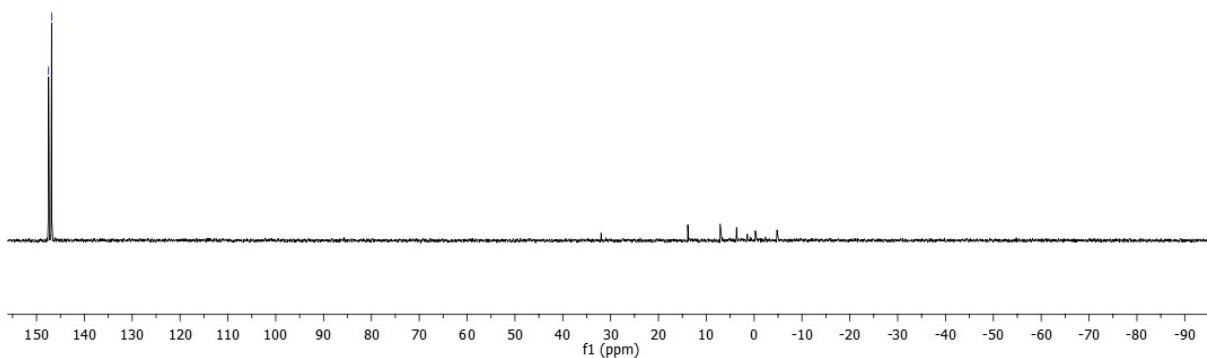
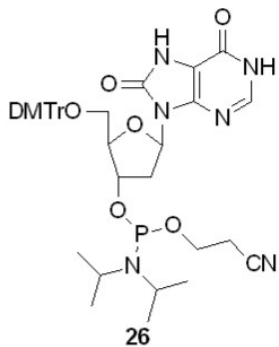
ES+
25-Sep-2013







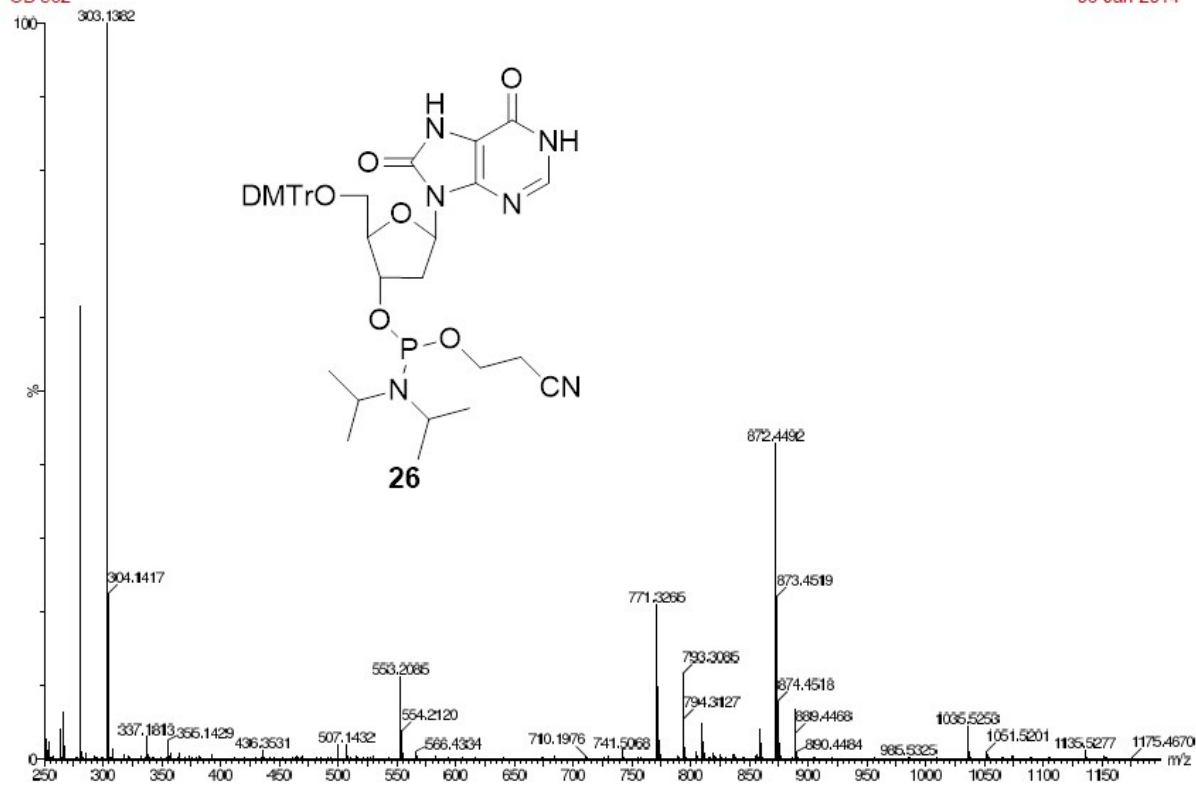
147.48
146.85

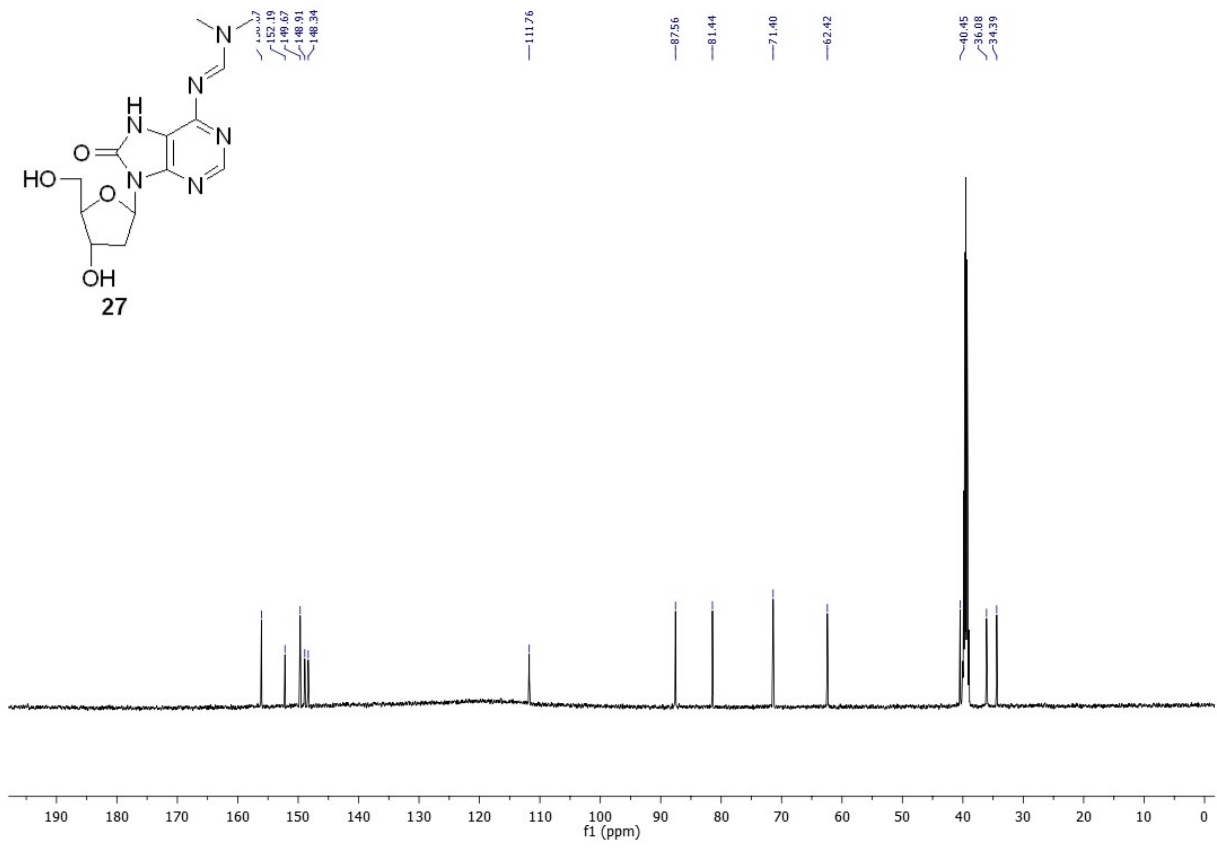
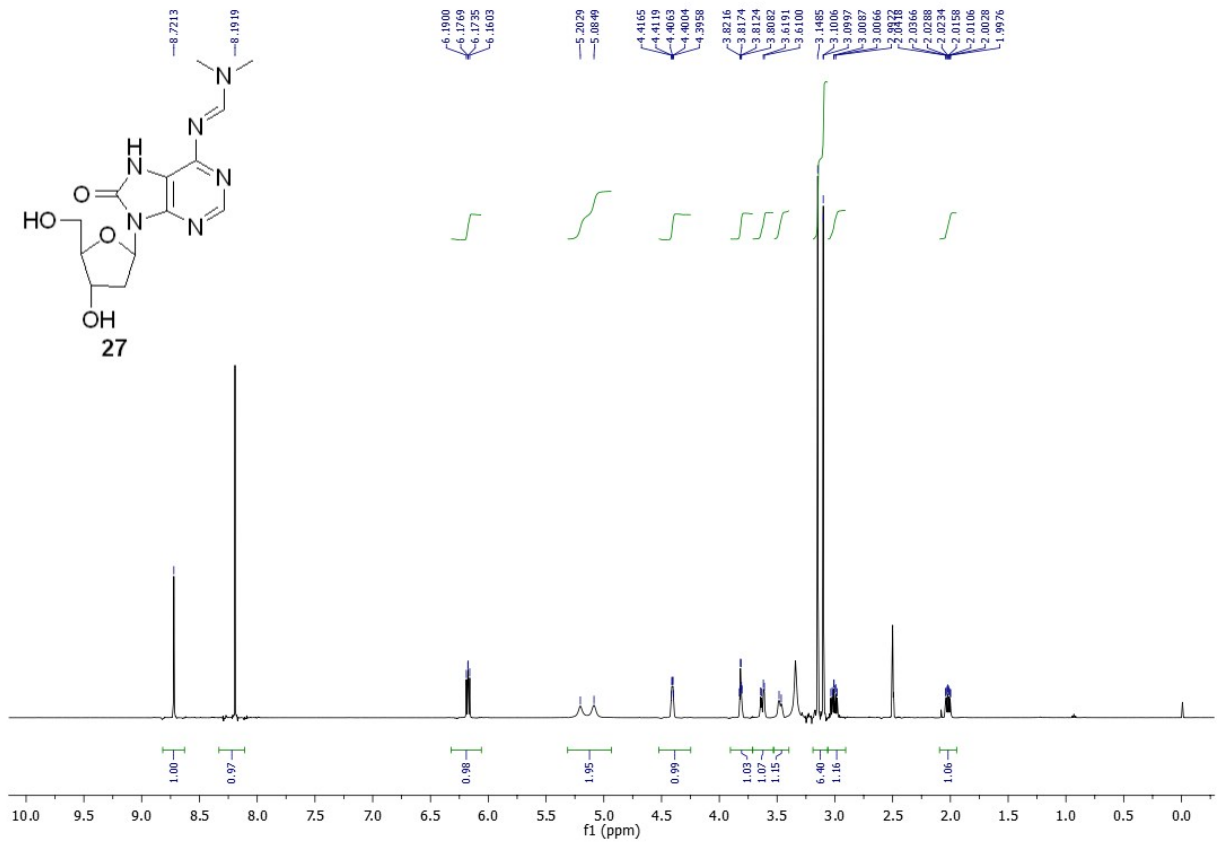


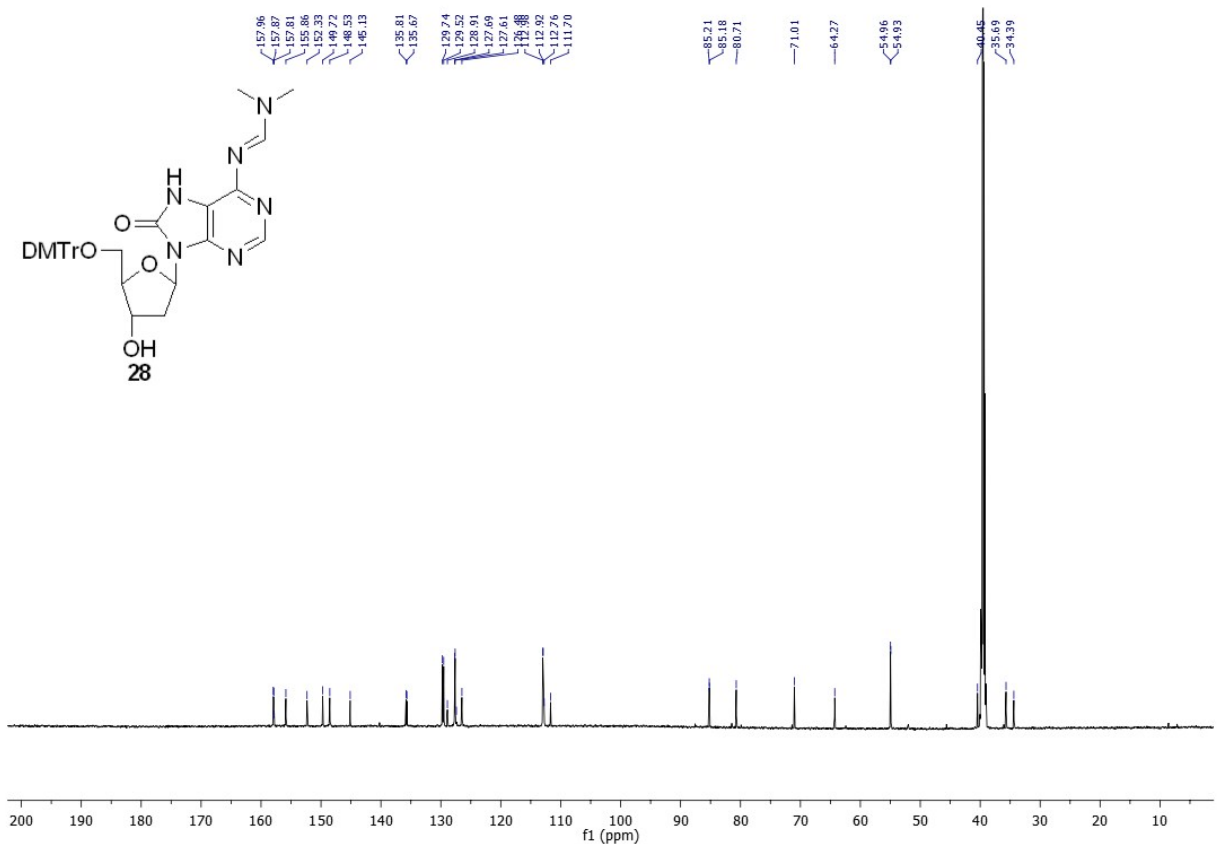
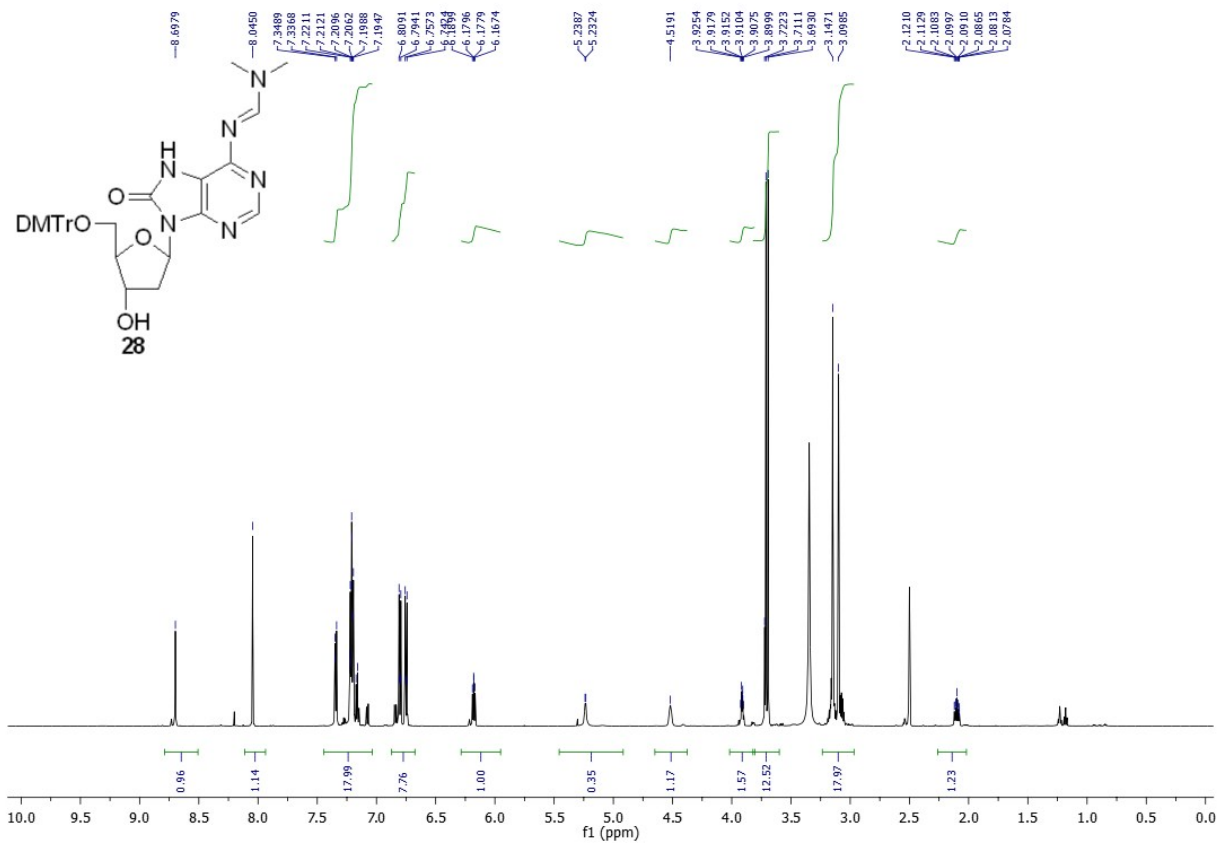
35409
OB 562

accurate mass

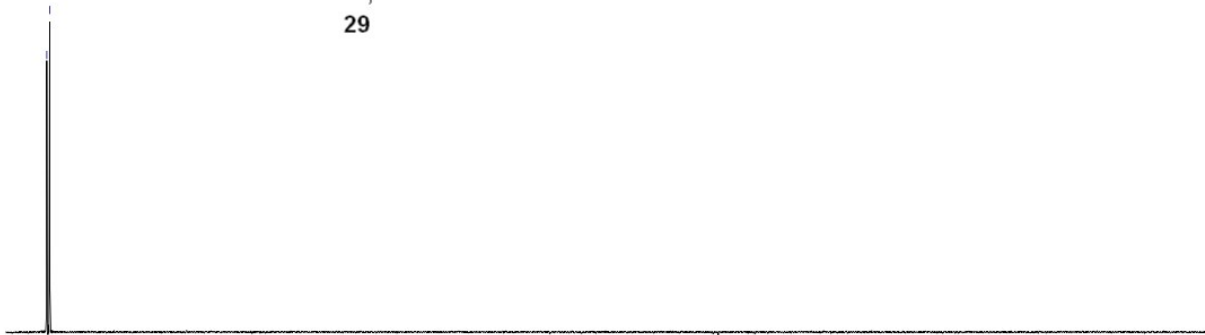
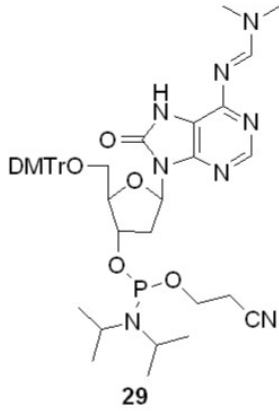
ES+
08-Jan-2014







147.44
146.83

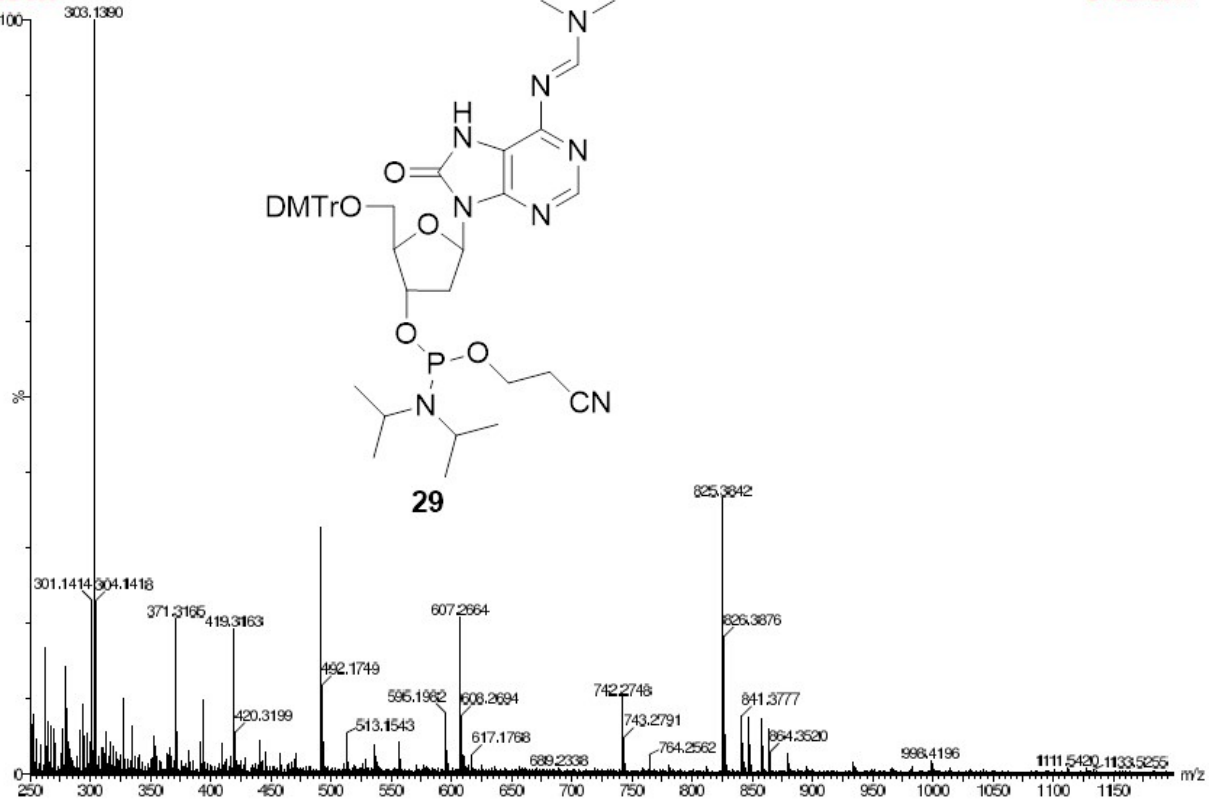


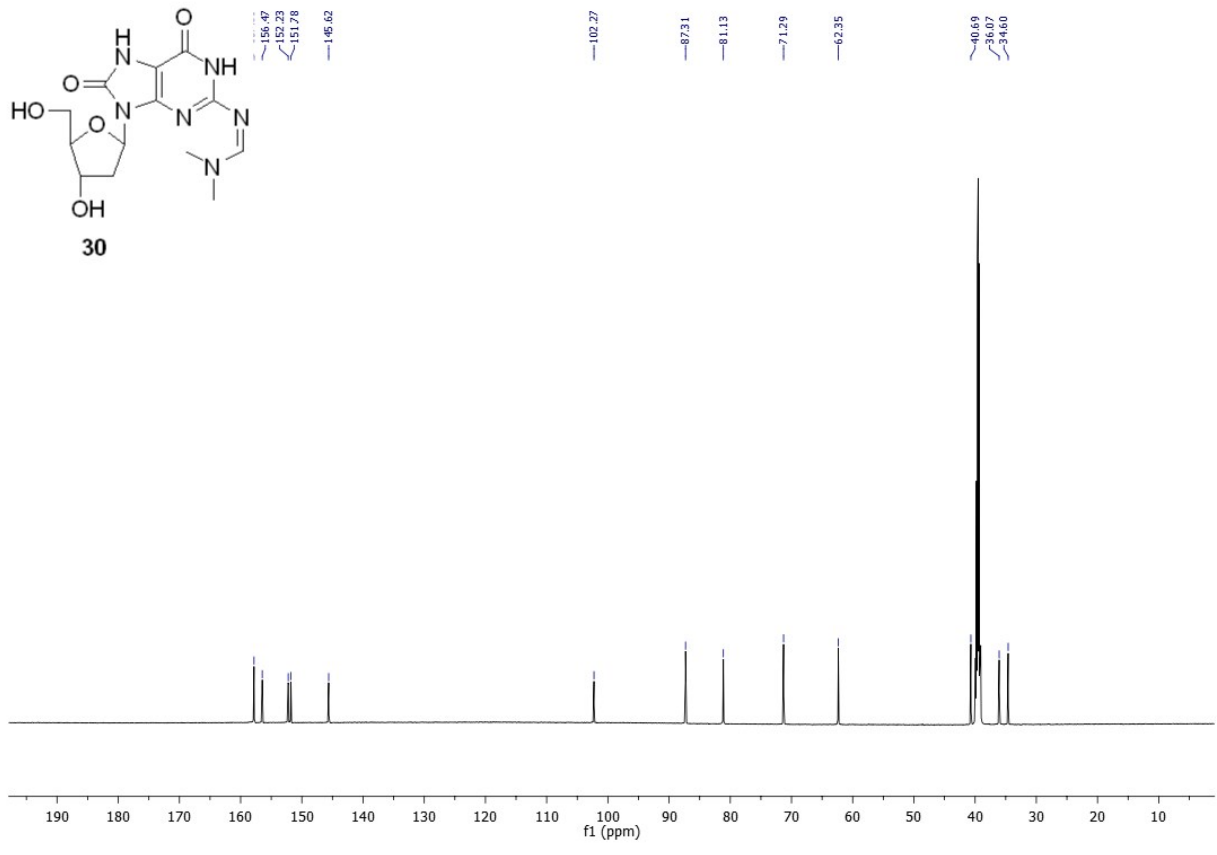
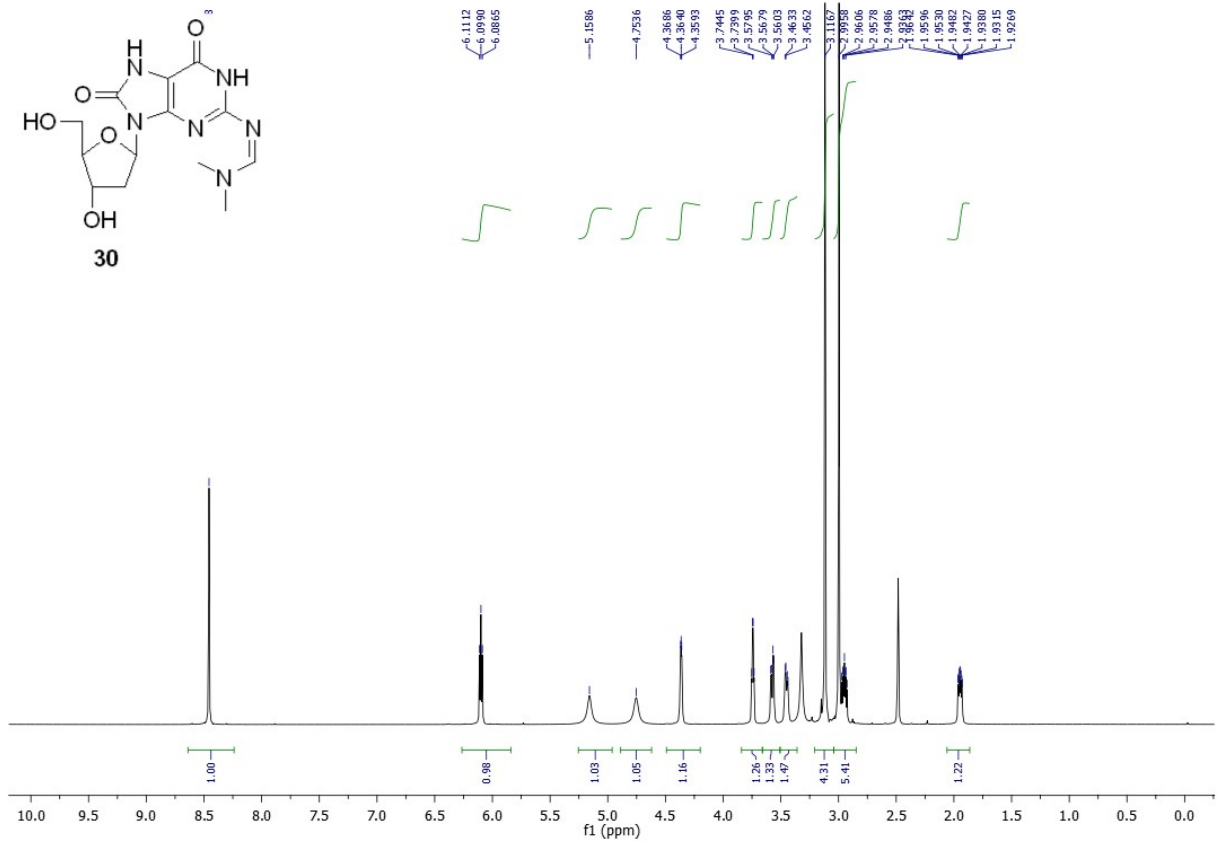
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 -10 -20 -30 -40 -50 -60 -70 -80 -90
f1 (ppm)

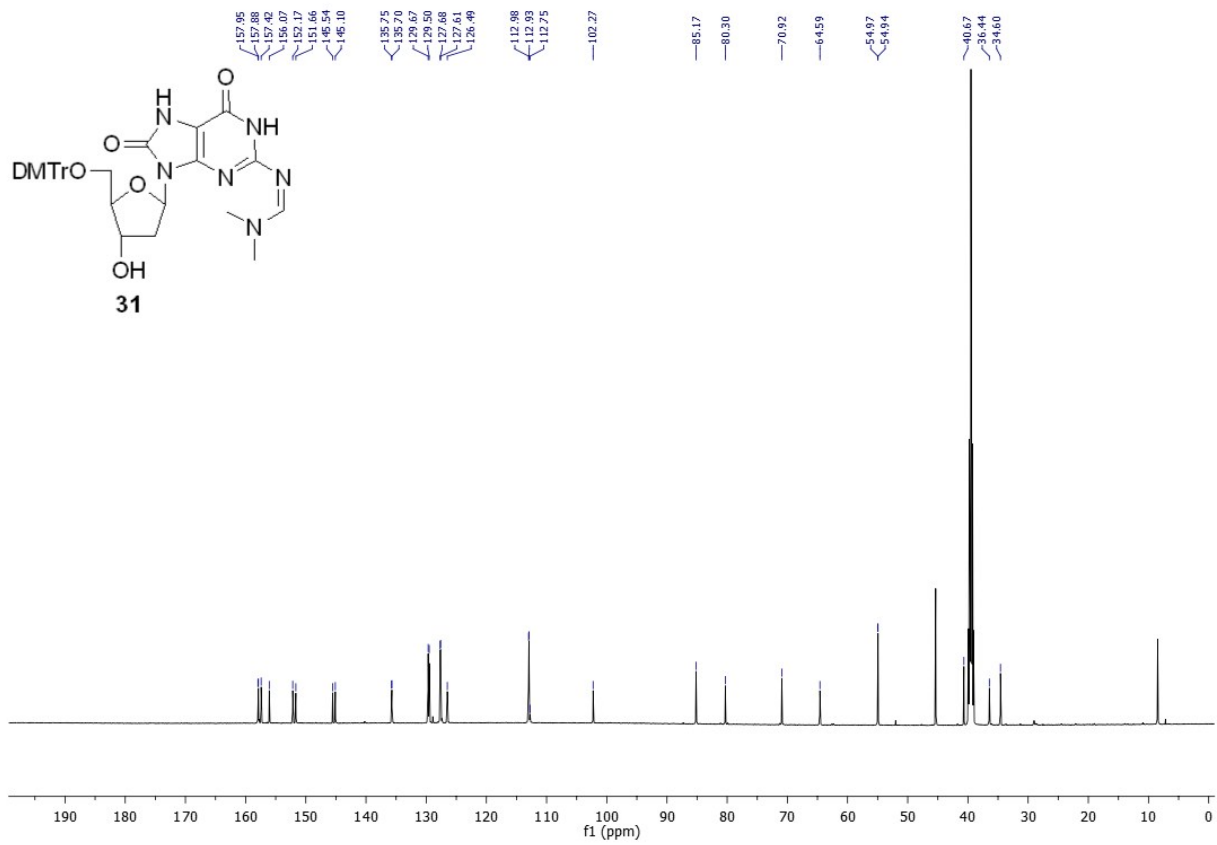
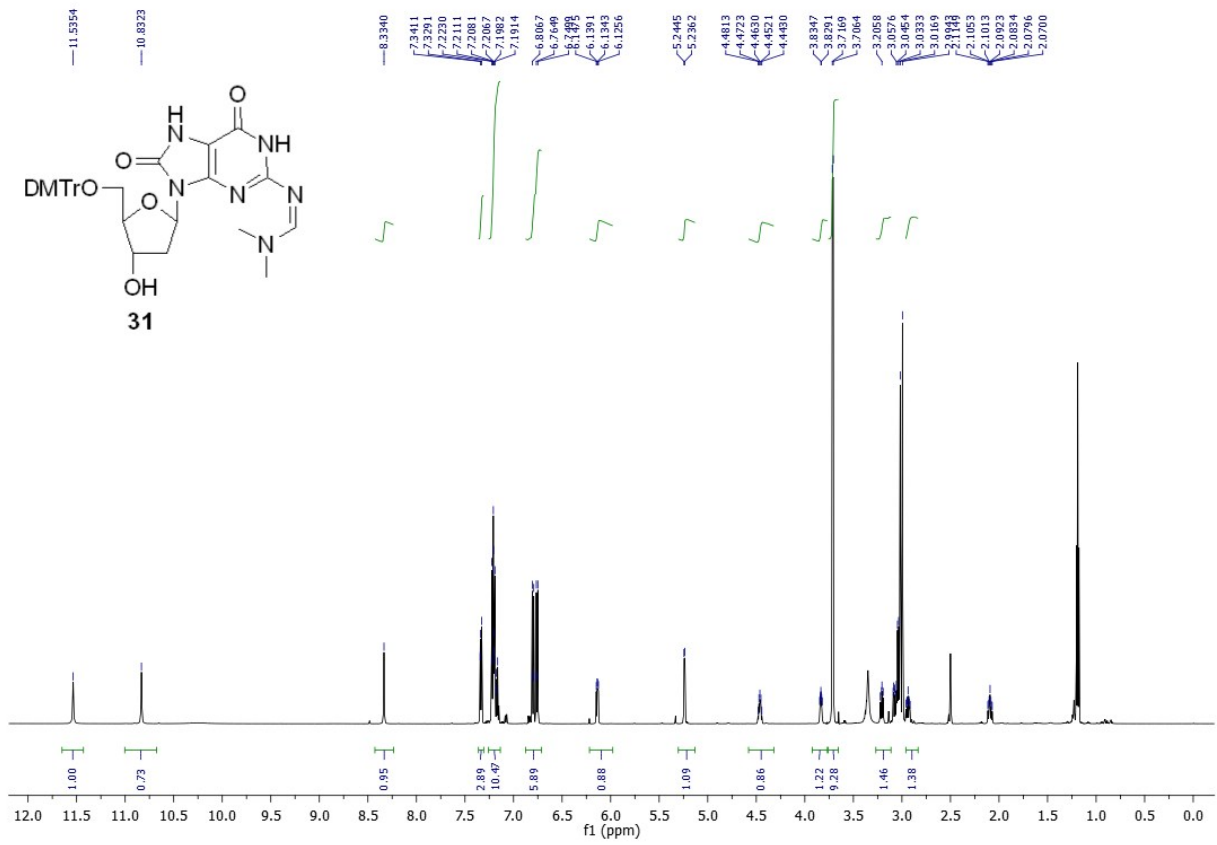
35467
OB 566

accurate mass

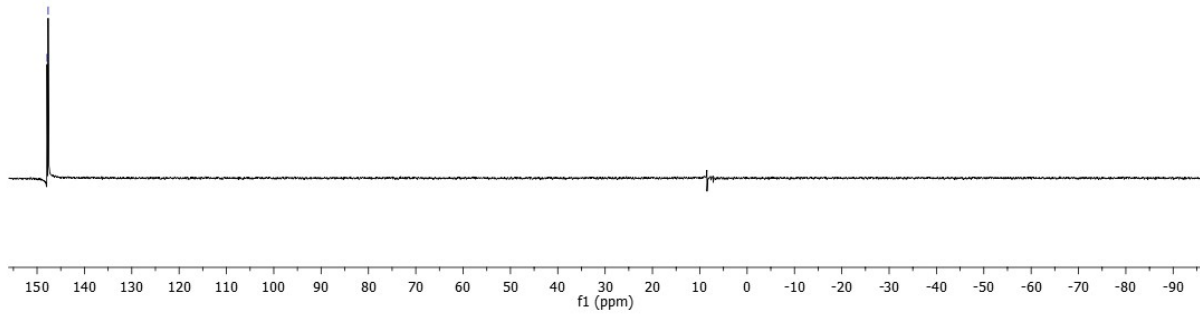
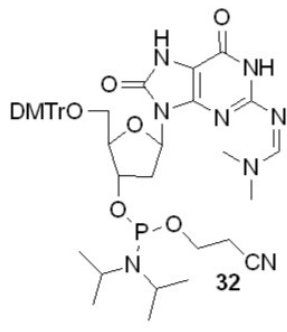
ES+
21-Jan-2014







147.89
147.67



35727
OB 579

accurate mass

ES+
20-Feb-2014

