Supporting information

New methylene-bridged hexopyranosyl nucleoside modified oligonucleotides (BHNA): synthesis and biochemical studies

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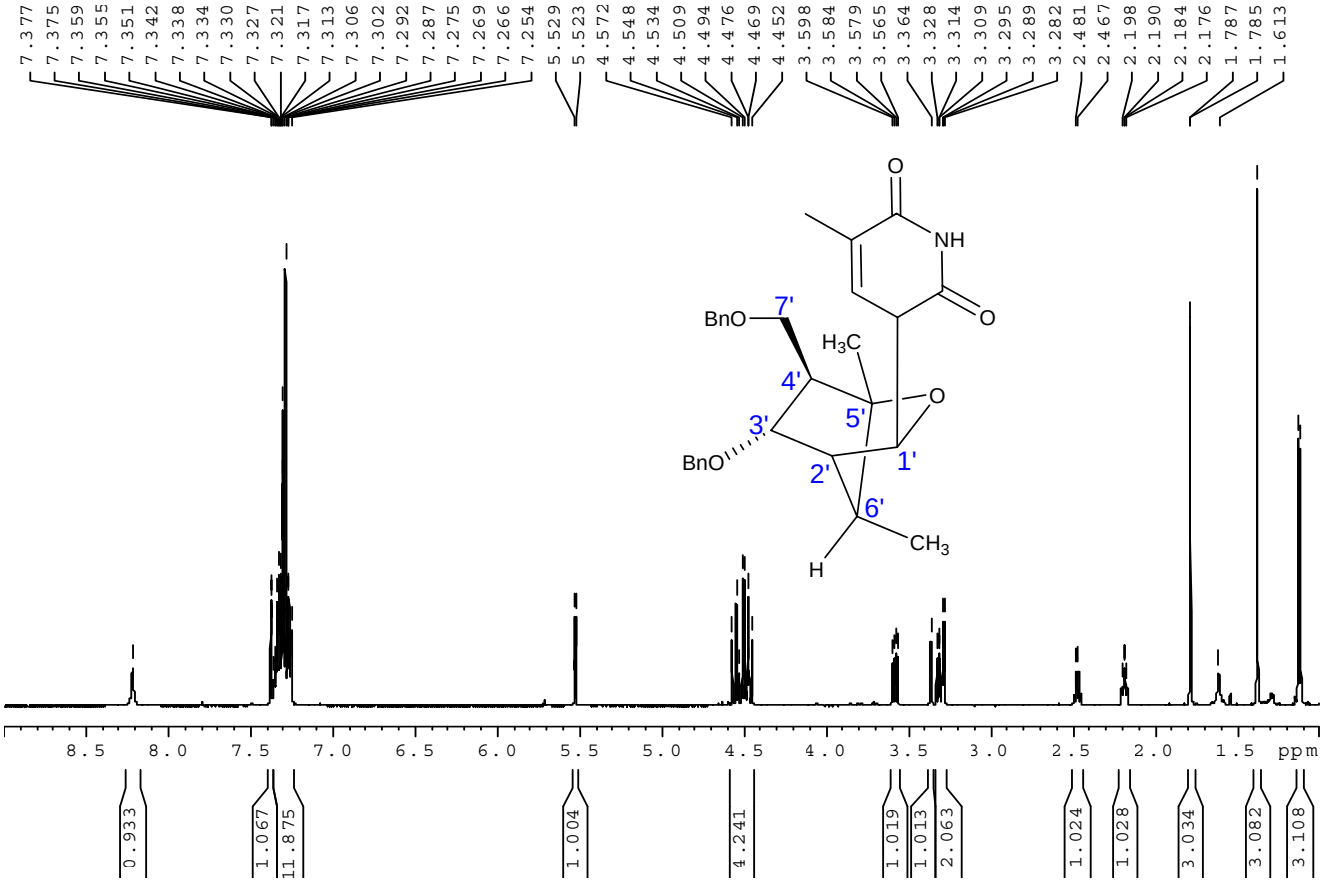


Figure S1. ^{1}H NMR spectrum of compound 1.

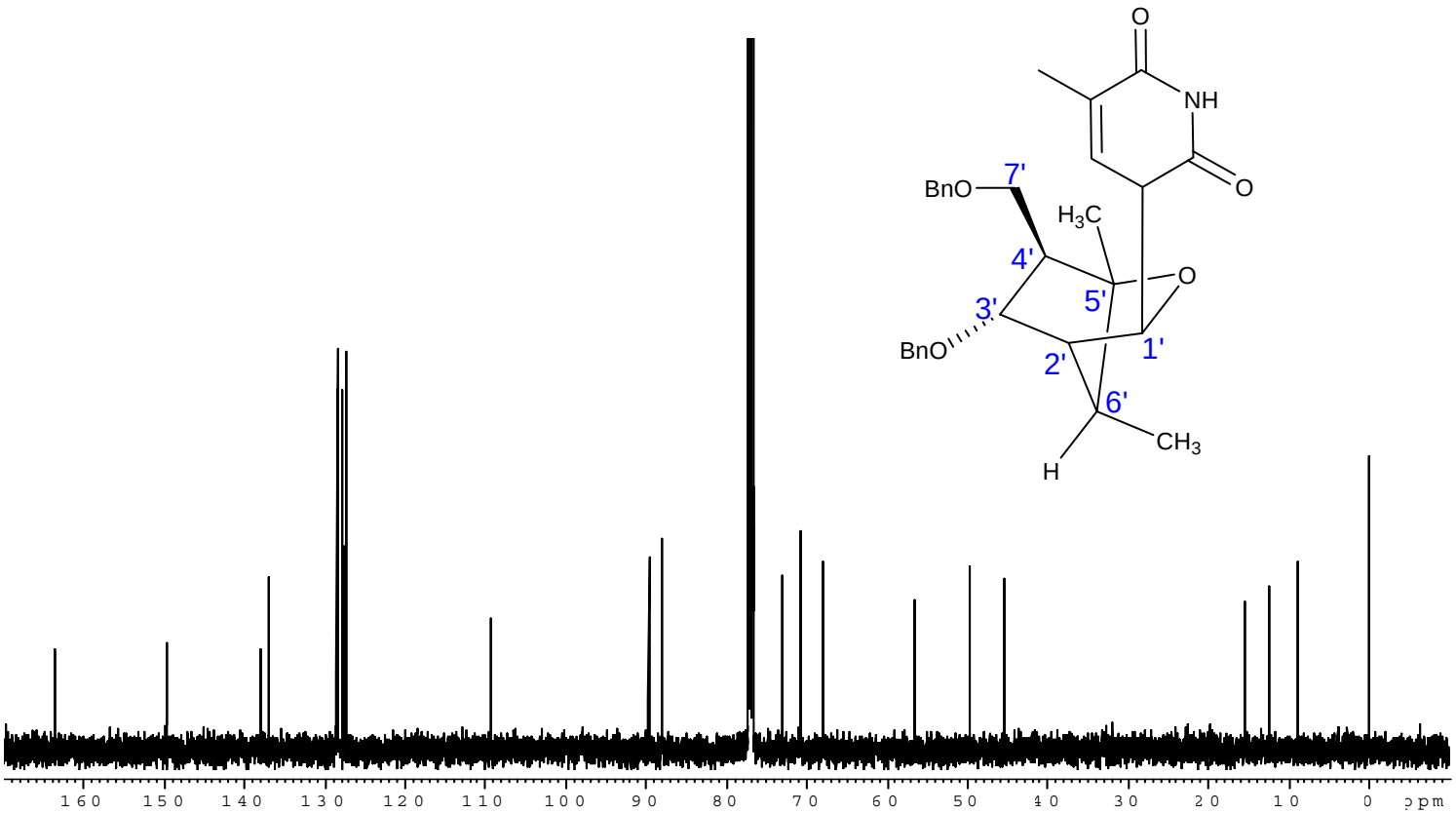


Figure S2. ^{13}C NMR spectrum of compound 1.

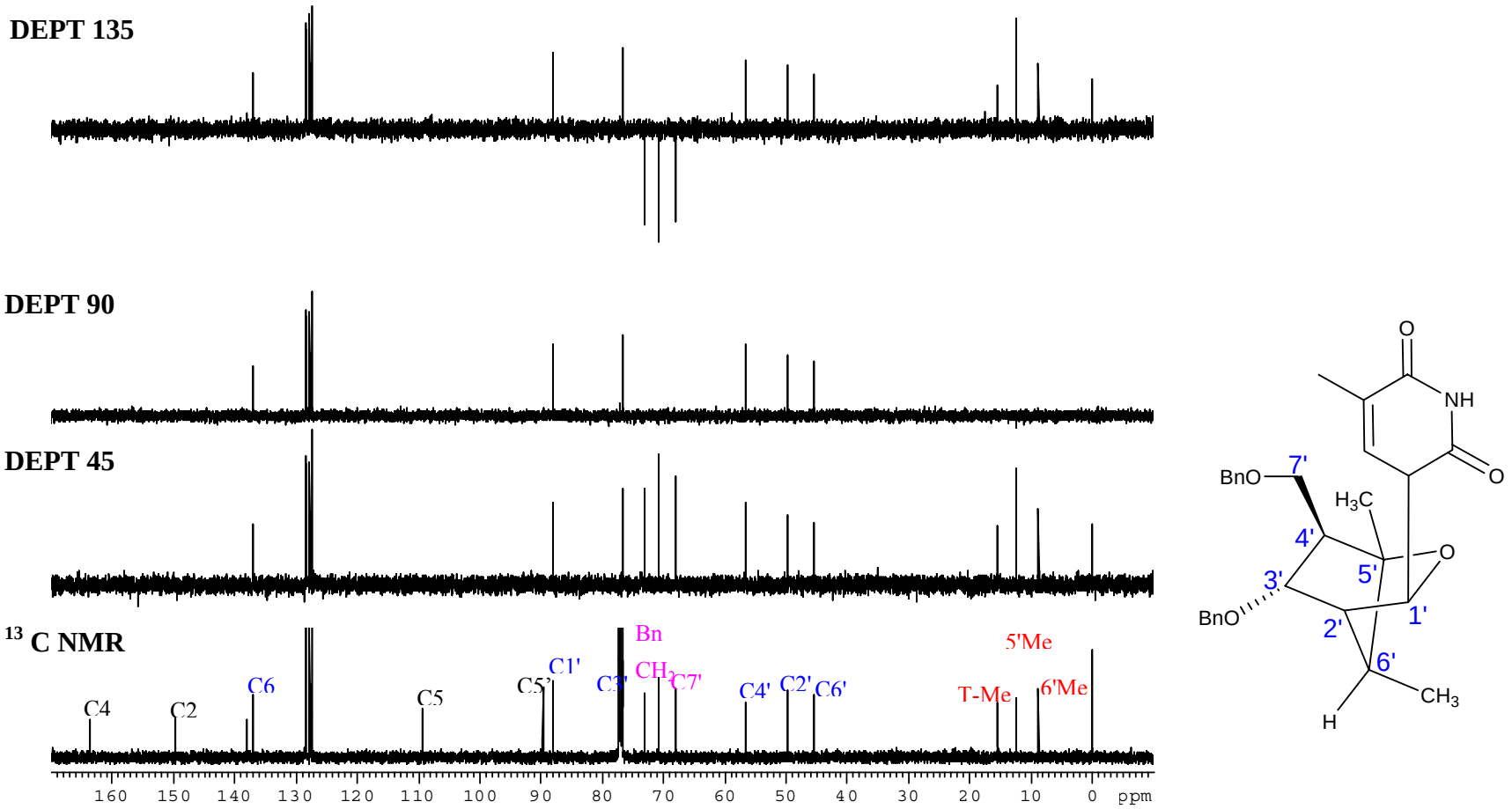


Figure S3. DEPT spectra of compound 1.

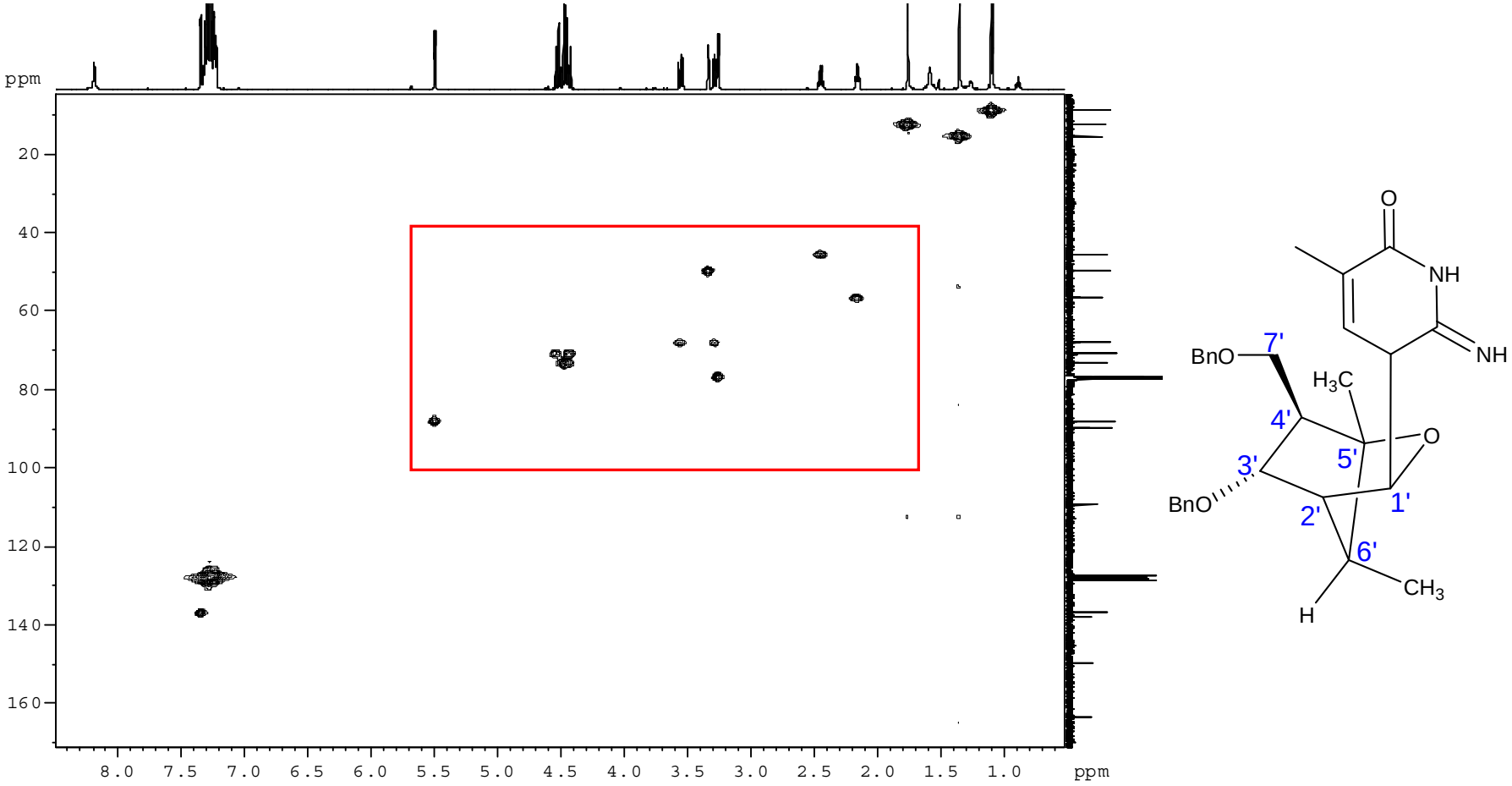
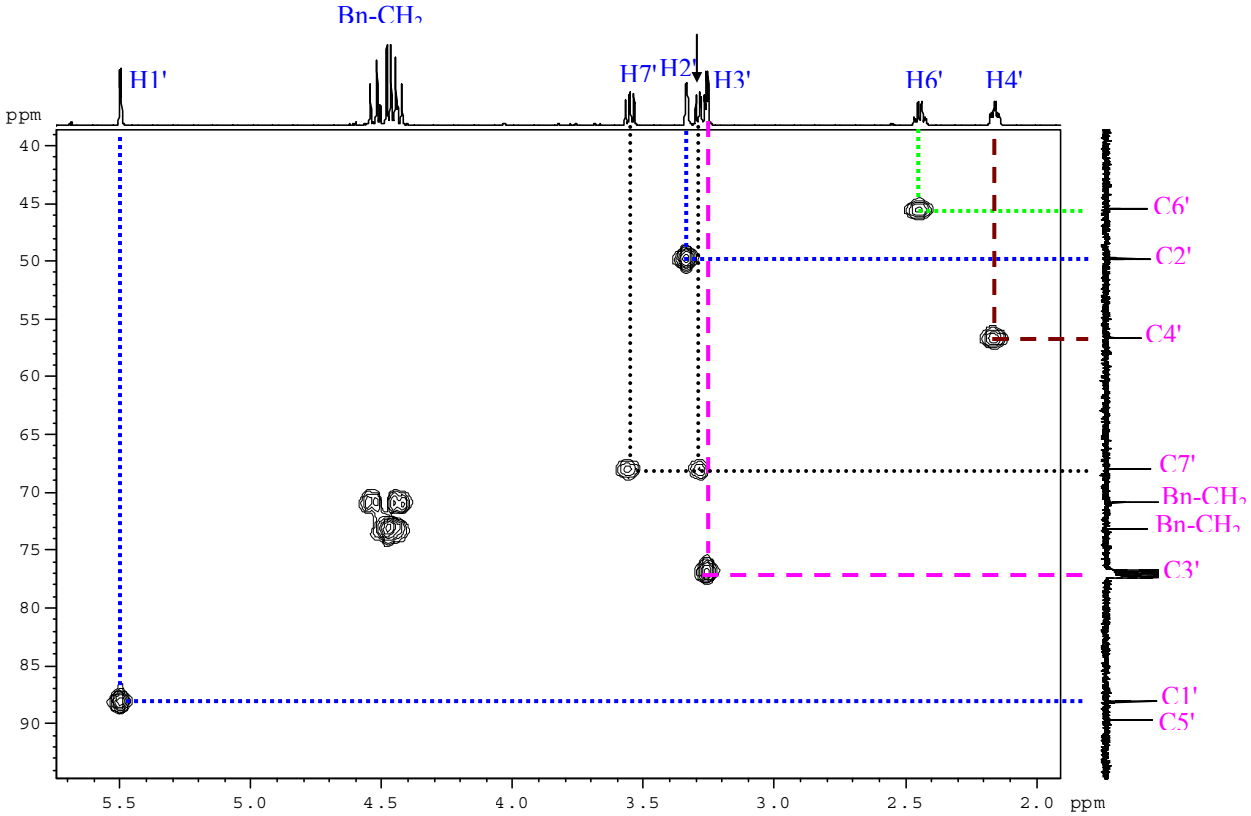


Figure S4. ^{1}H-^{13}C HMQC spectra of compound 1.

The part inside the red frame was expended in Figure s5.



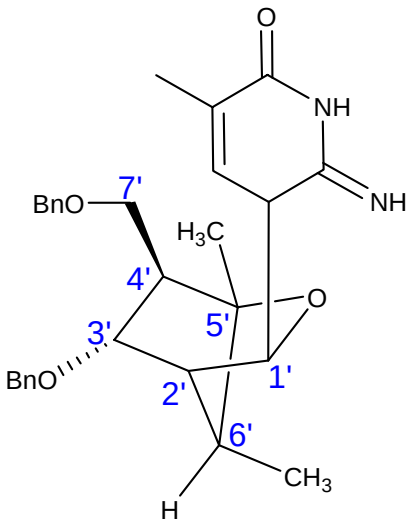


Figure S5. Expension of ^{1}H-^{13}C HMQC spectra of compound 1.

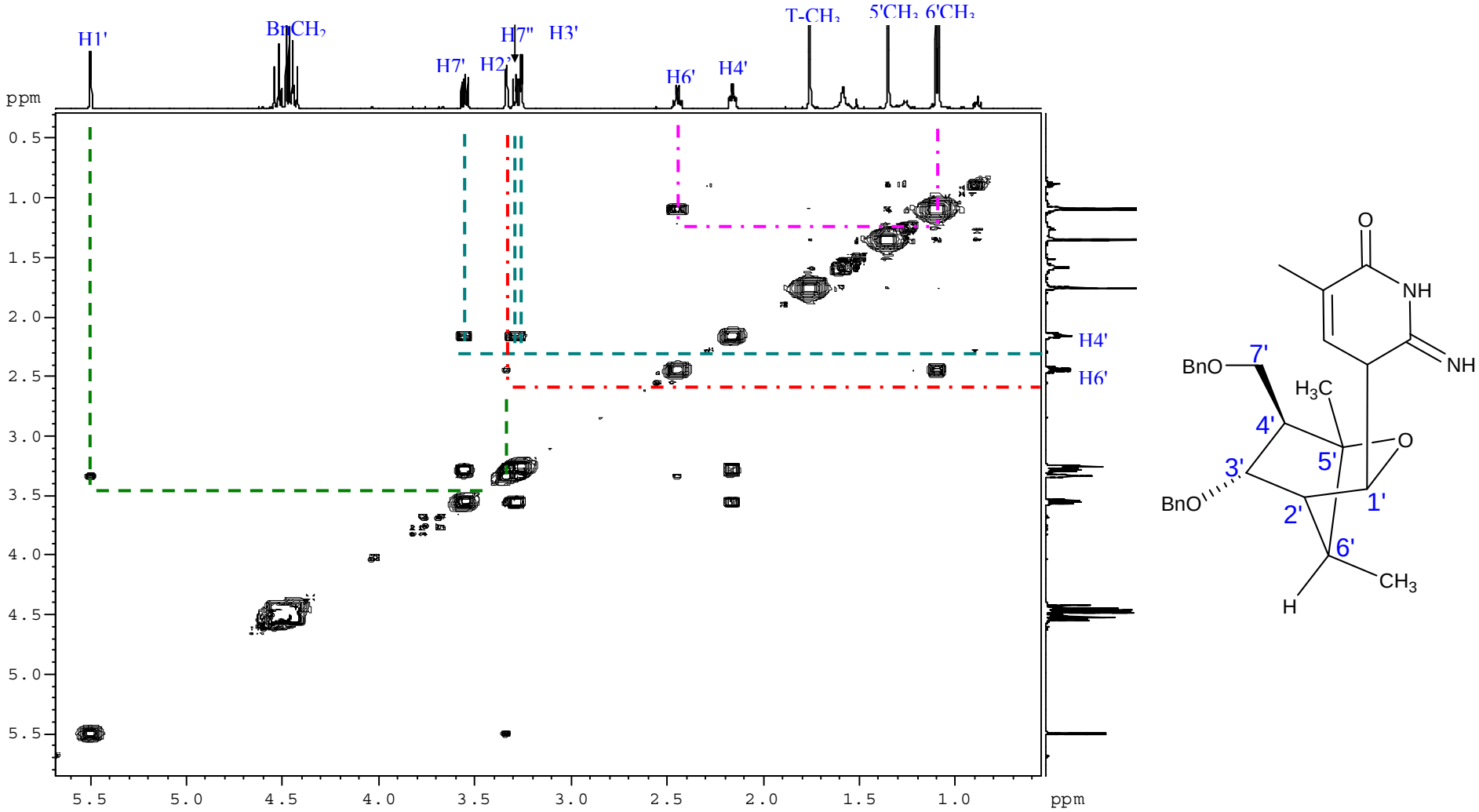


Figure S6. COSY spectra of compound 1.

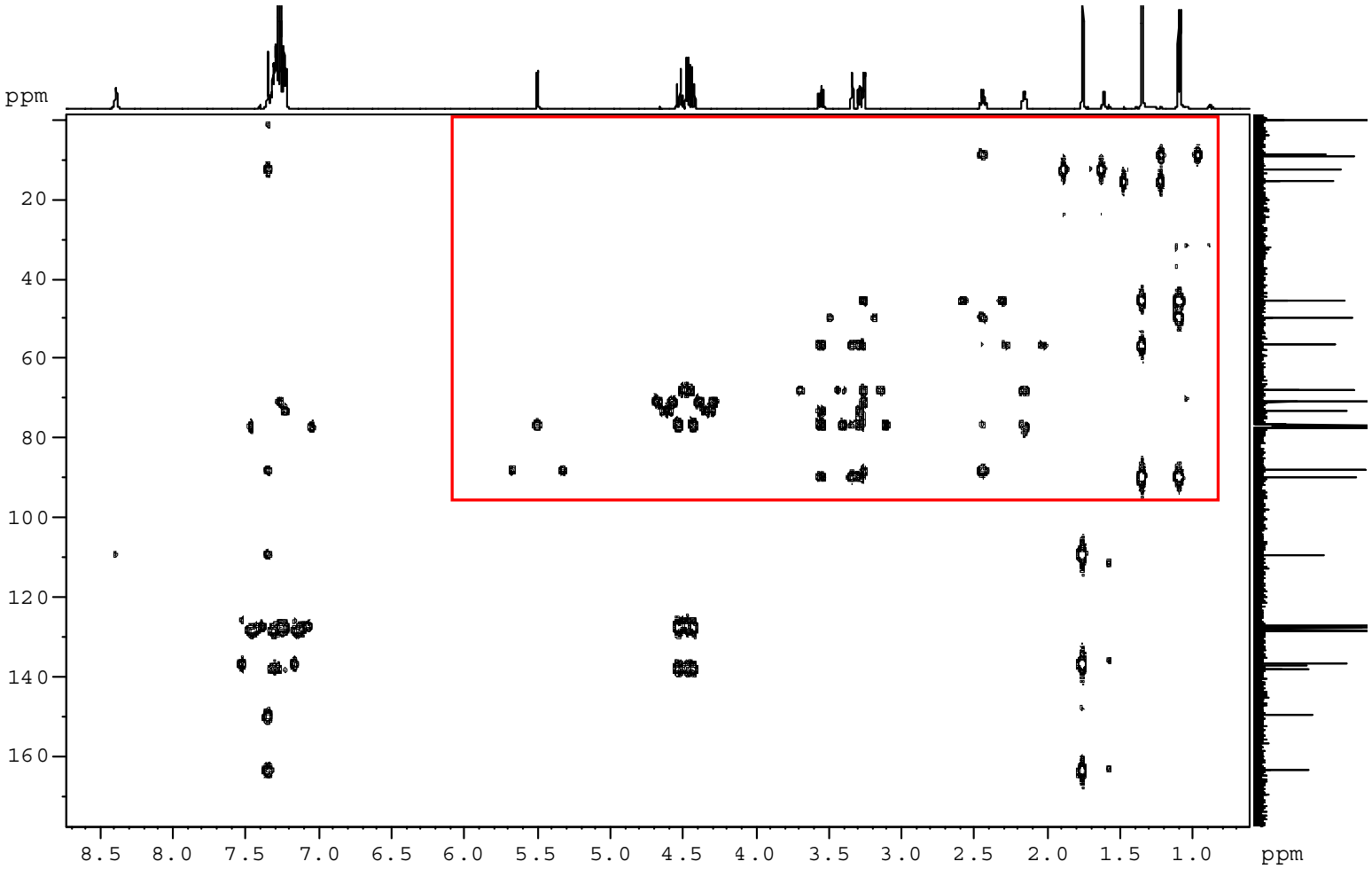


Figure S7. HMBC spectra of compound 1.

The part inside the red frame was expended in Figure S8.

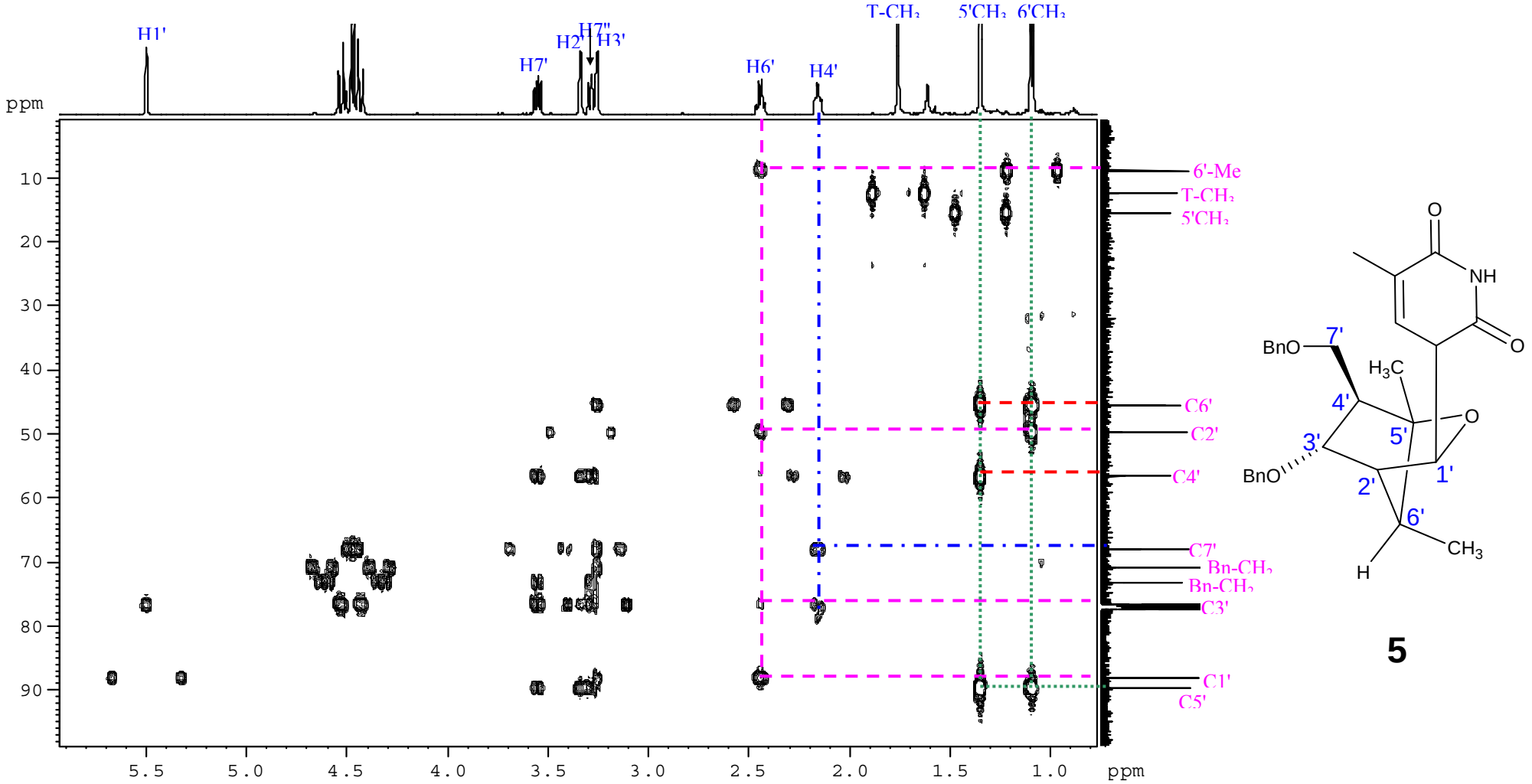
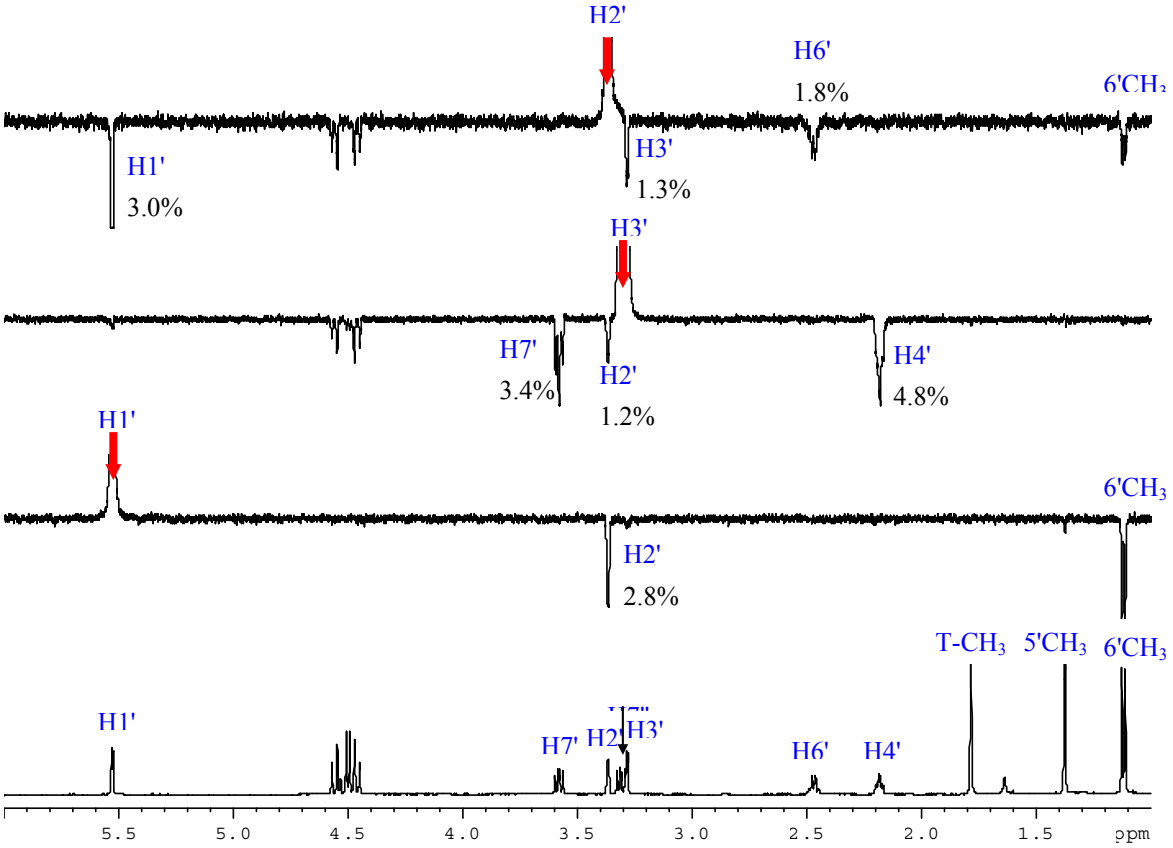


Figure S8. Expension of HMBC spectrum of compound 1.



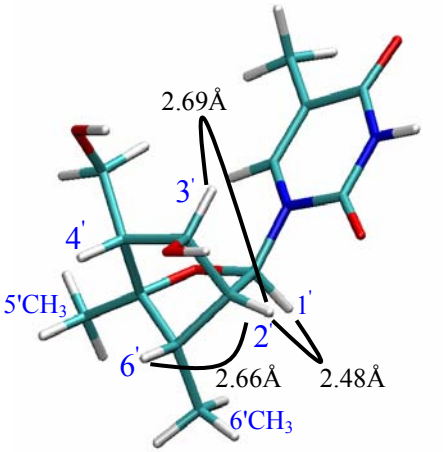


Figure S9. 1D nOe spectra of compound 1.

The model of product **5** shown on the right was obtained by *ab initio* geometry optimization.

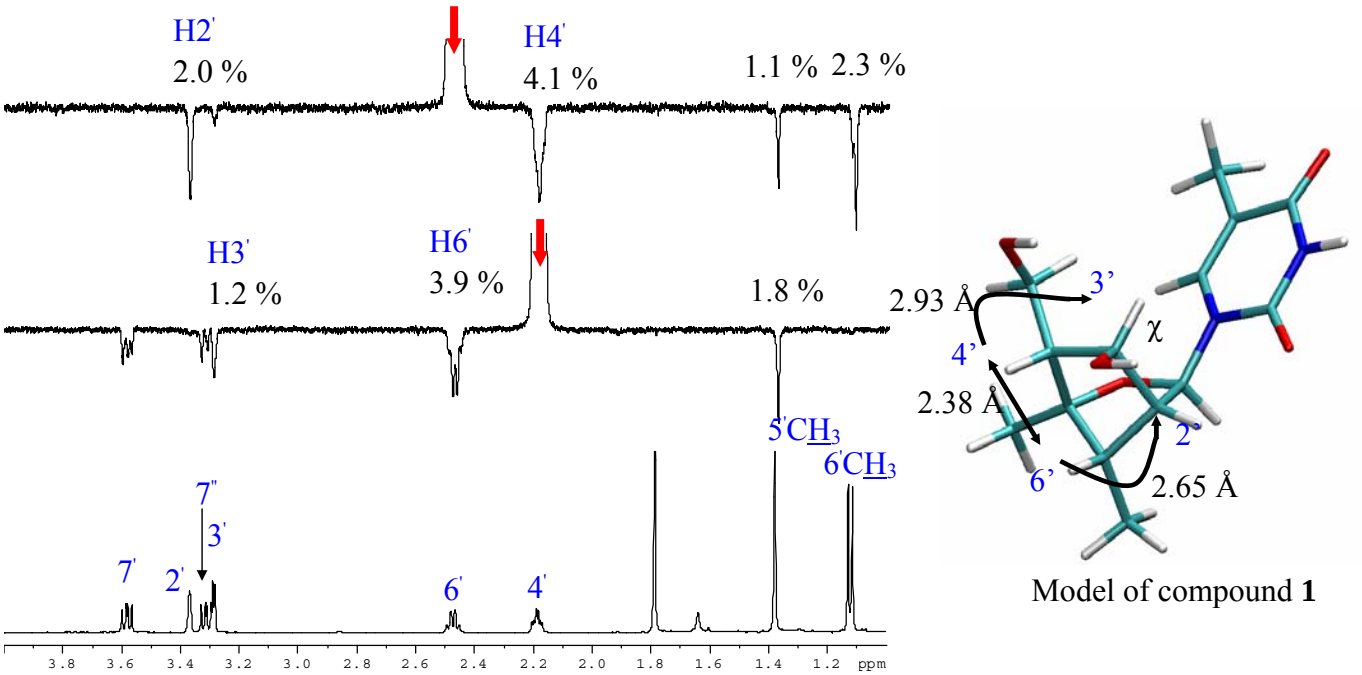
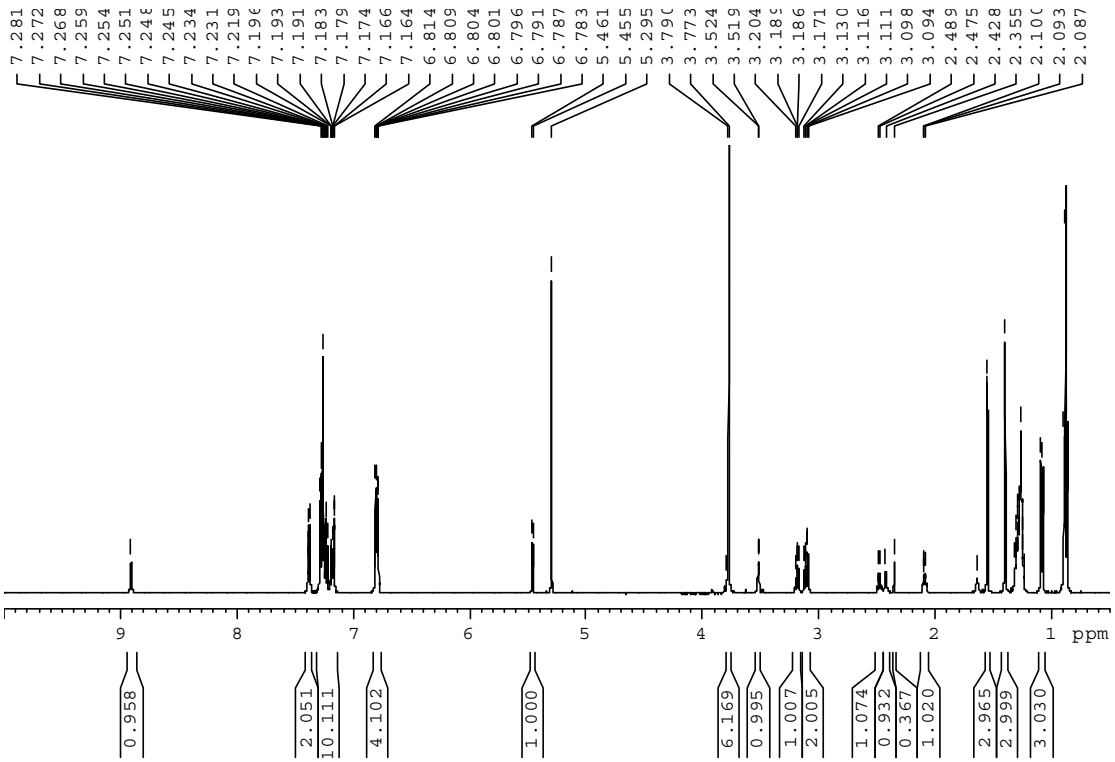


Figure 10. 1D nOe spectra of rearrangement compound 1.

The model of product **5** shown on the right was obtained by ab initio geometry optimization.



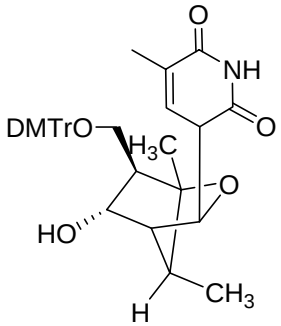


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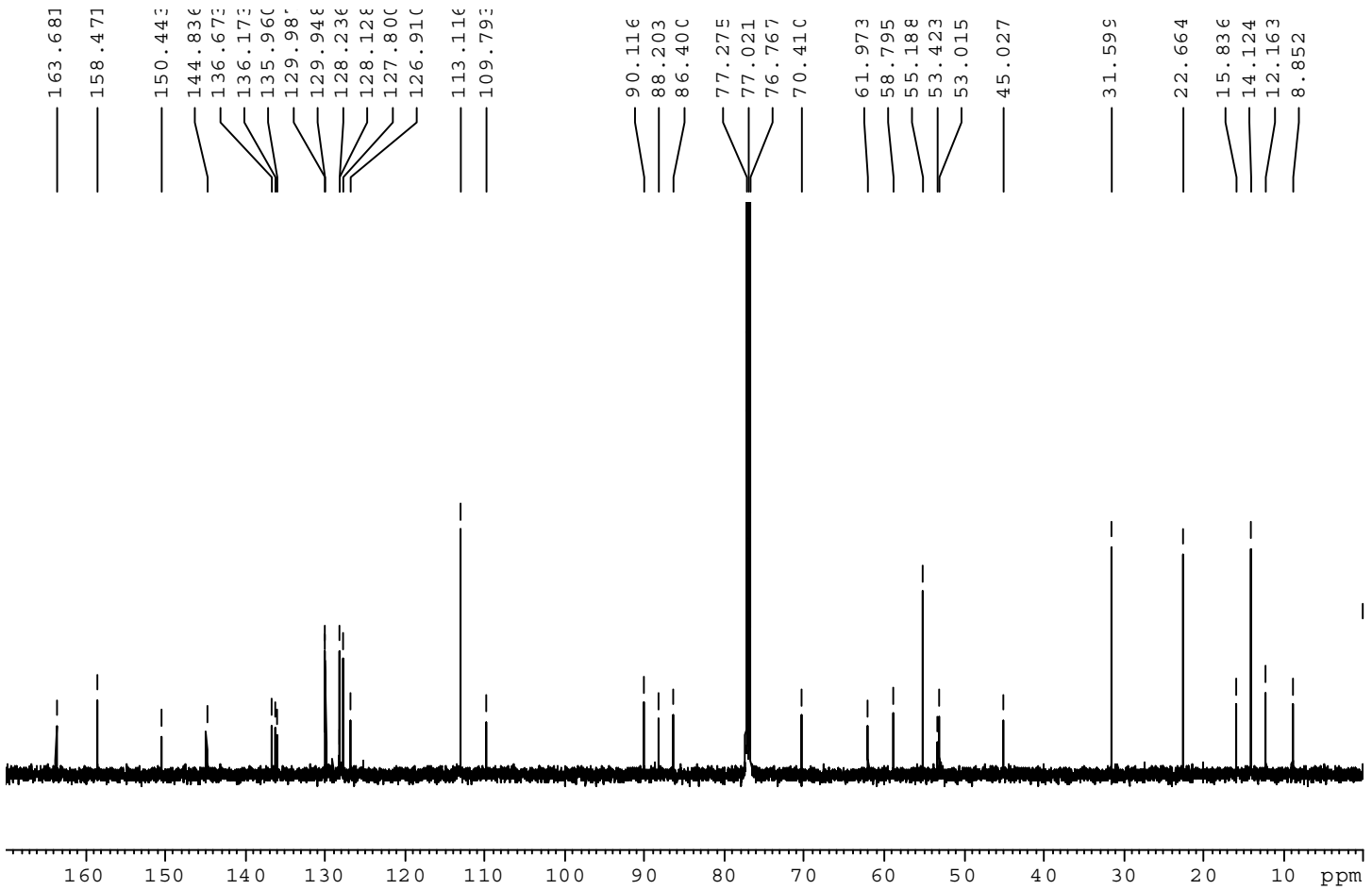
Figure S11. ^{1}H NMR spectrum of compound 2.



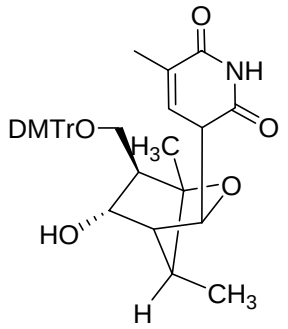


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Figure S12. ^{13}C NMR spectrum of compound 2.

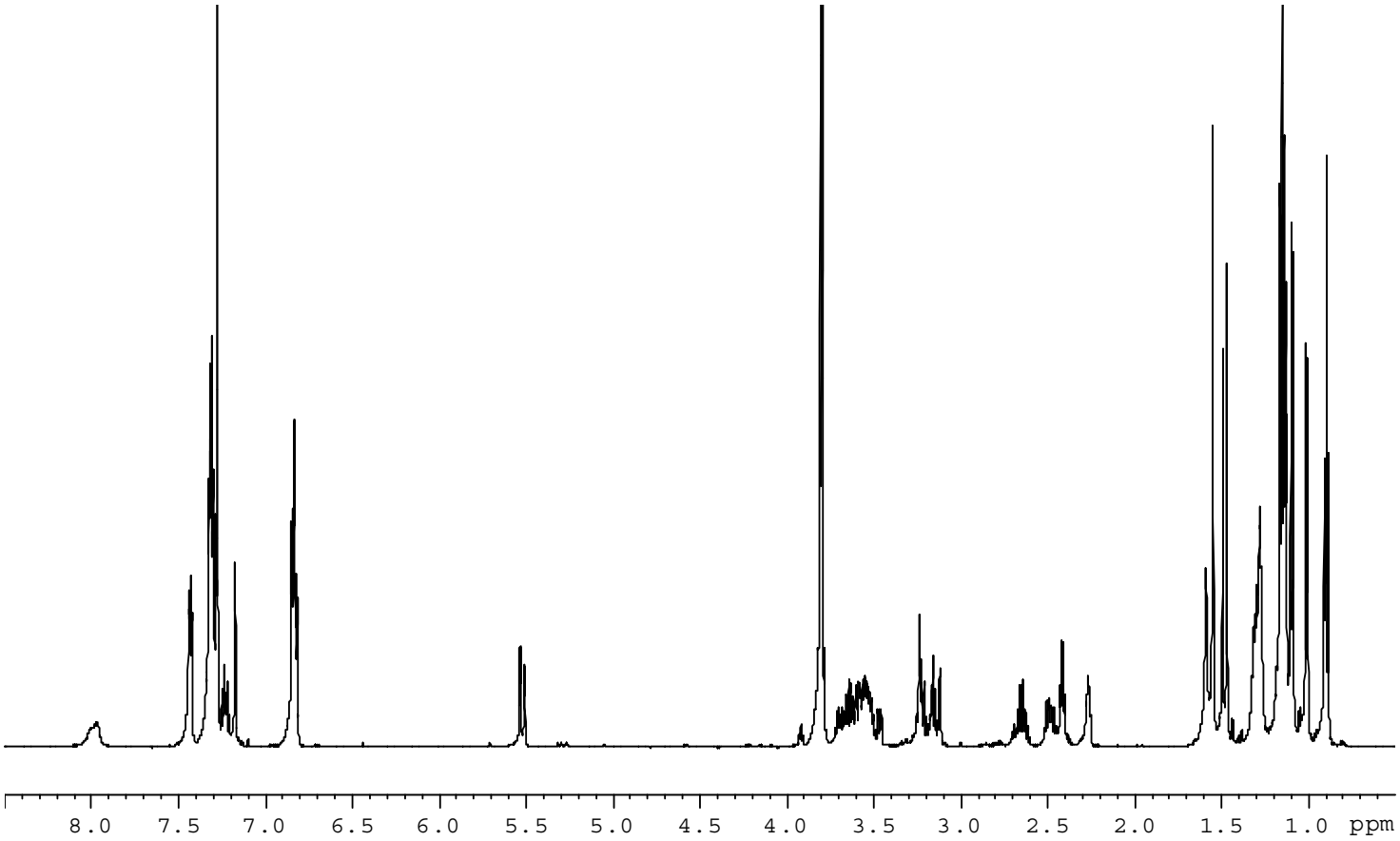

Figure S13. ^{1}H NMR spectrum of compound 3.