

Supplementary Material

Synthesis of (5,6 & 6,6)-oxa-oxa annulated sugars as glycosidase inhibitors from 2-formyl galactal using iodocyclization as a key step

Parasuraman Rajasekaran, Chennaiah Ande, and Yashwant D. Vankar*

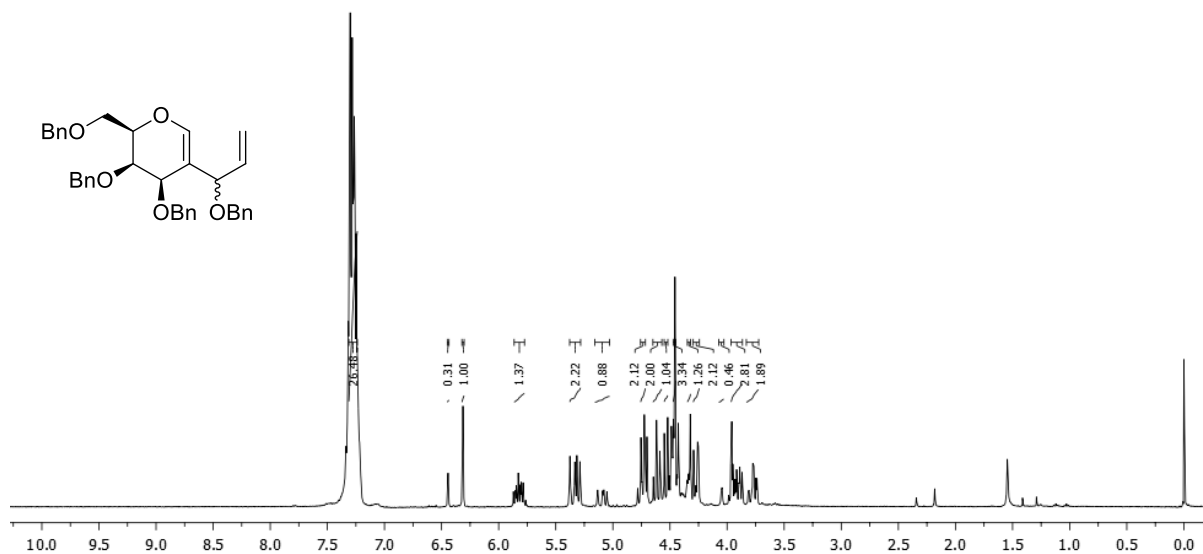
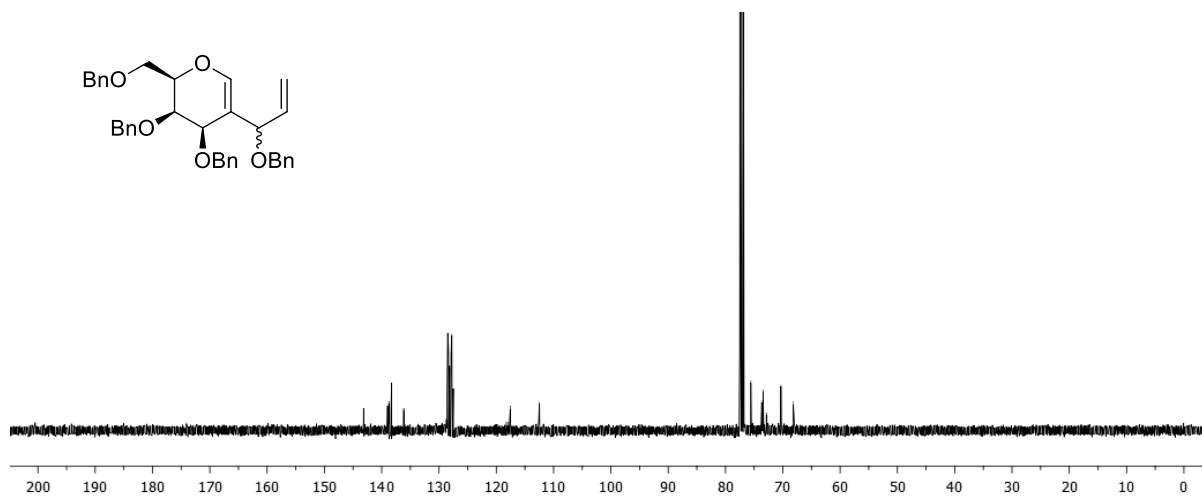
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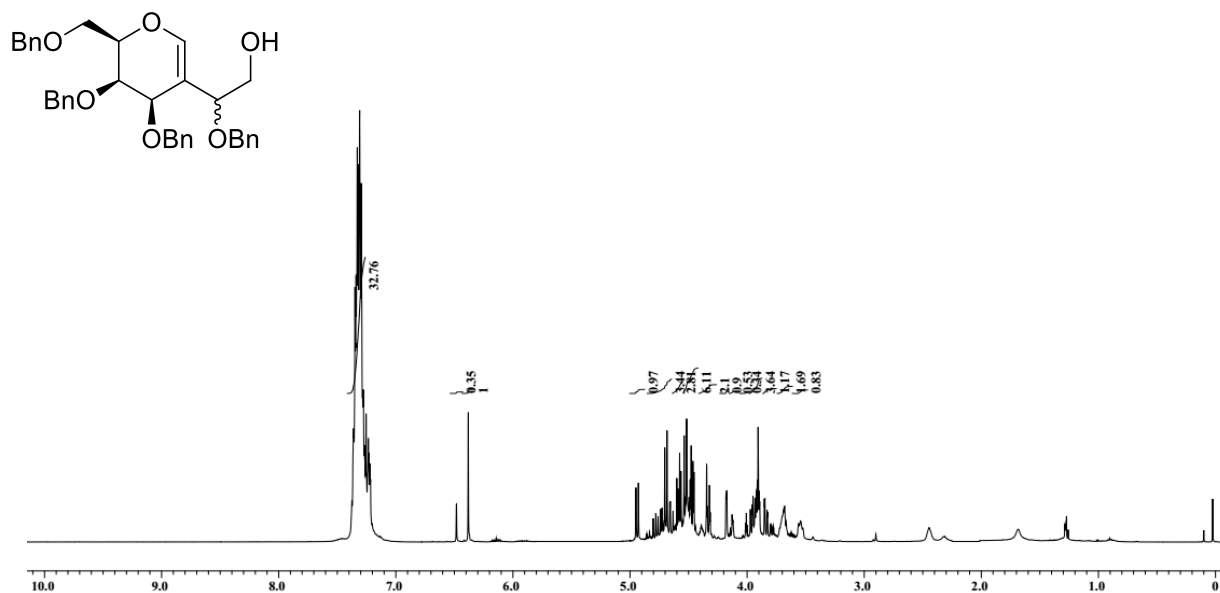
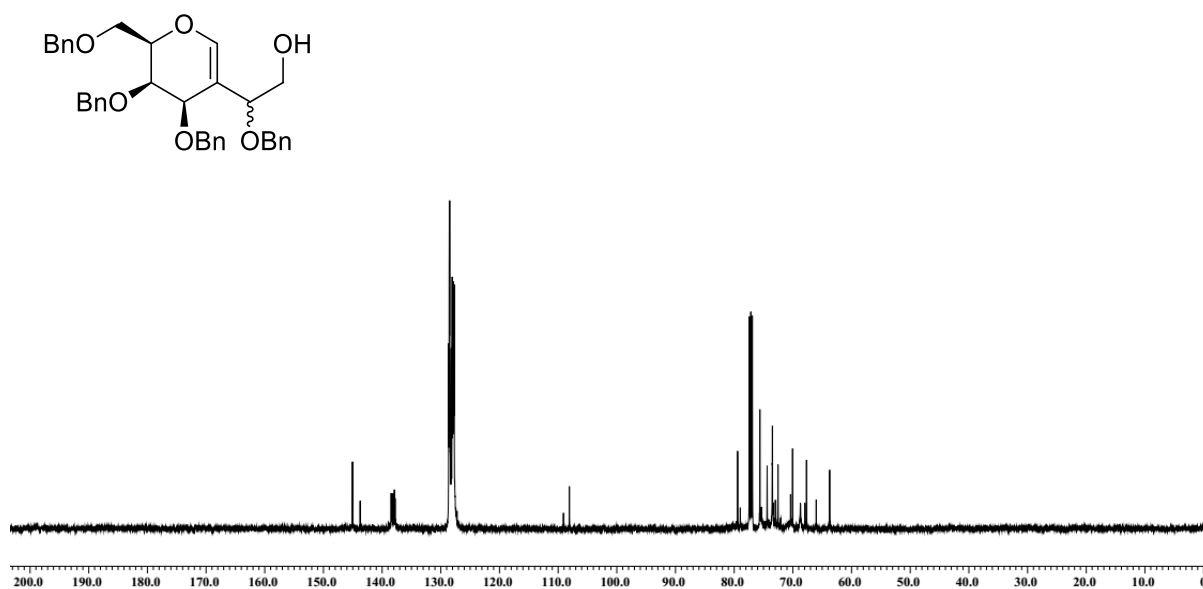
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Figures S 1. ¹H NMR spectrum of compound 17.Figures S 2. ¹³C NMR spectrum of compound 17.

Figures S 3. ¹H NMR spectrum of compound 19.Figures S 4. ¹³C NMR spectrum of compound 19.

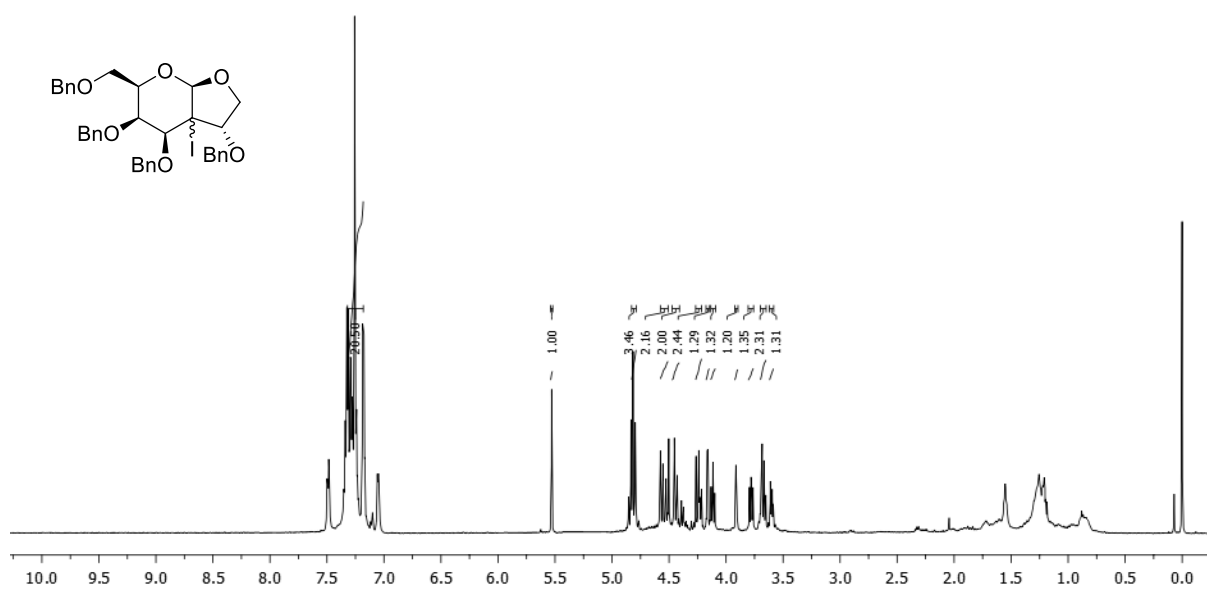


Figure S 5. ¹H NMR spectrum of compound 20a.

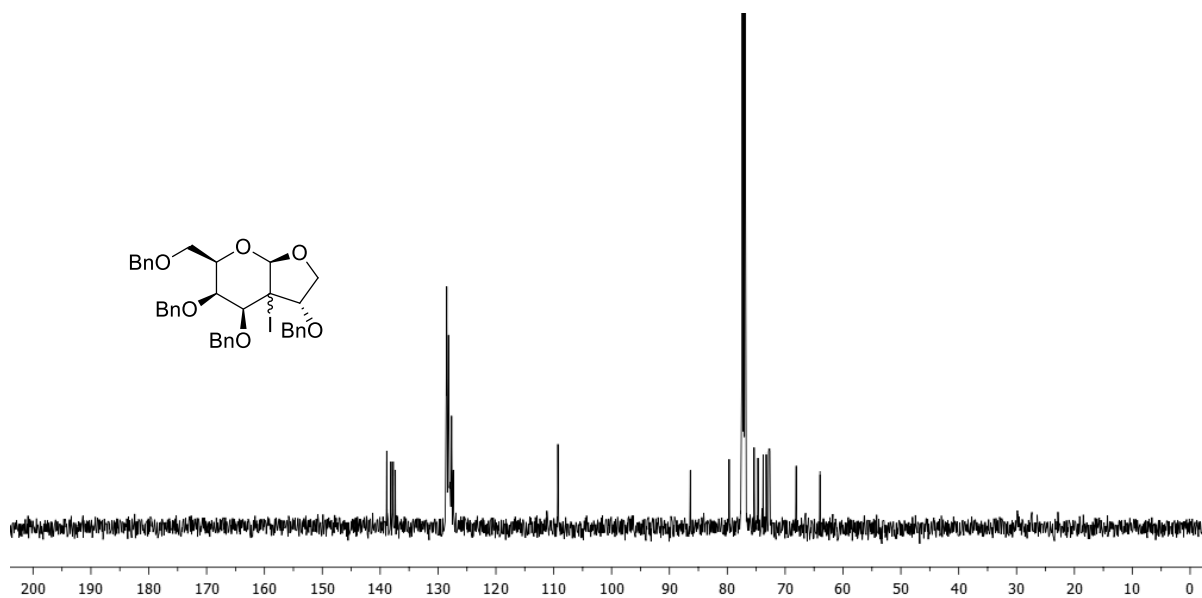


Figure S 6. ¹³C NMR spectrum of compound 20a.

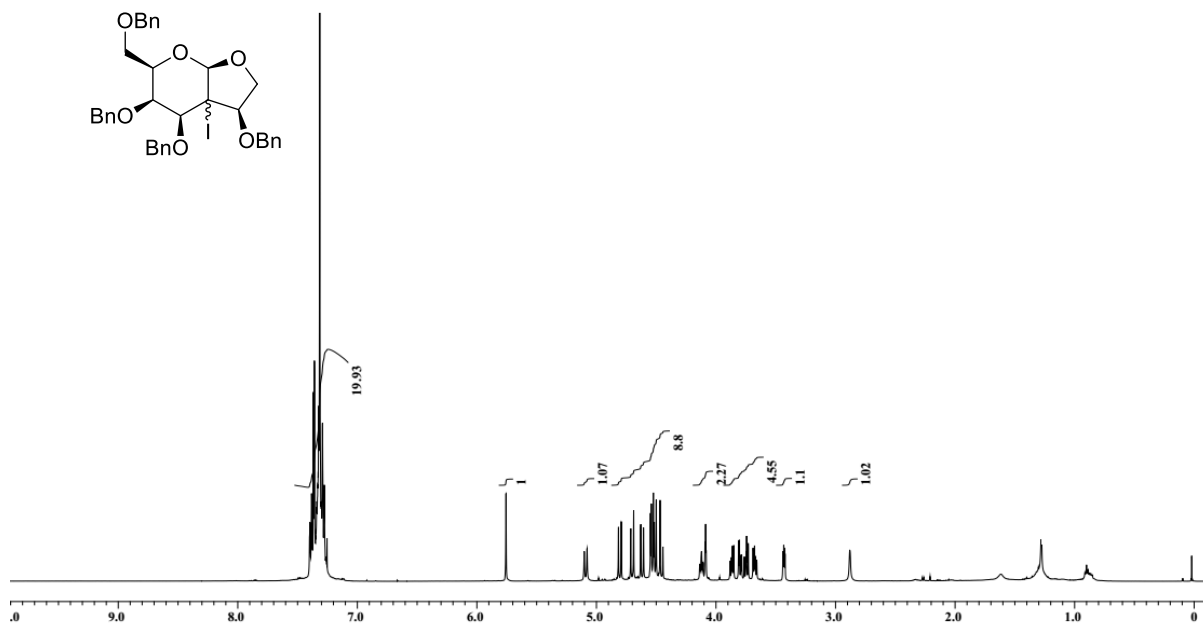


Figure S 7. ¹H NMR spectrum of compound 20b.

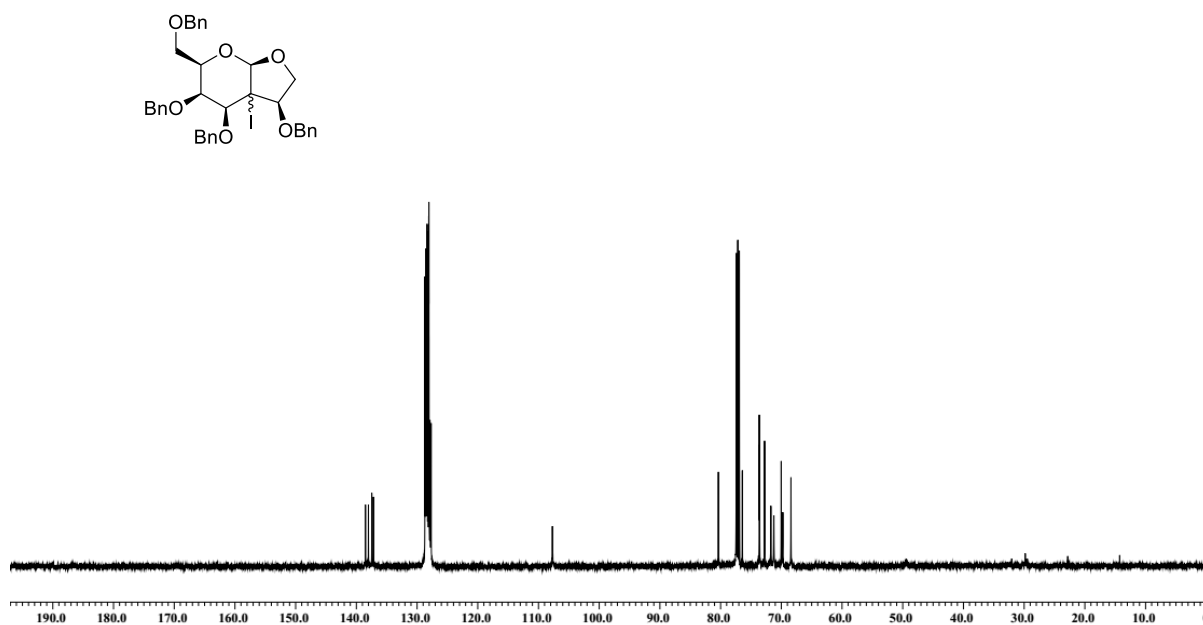
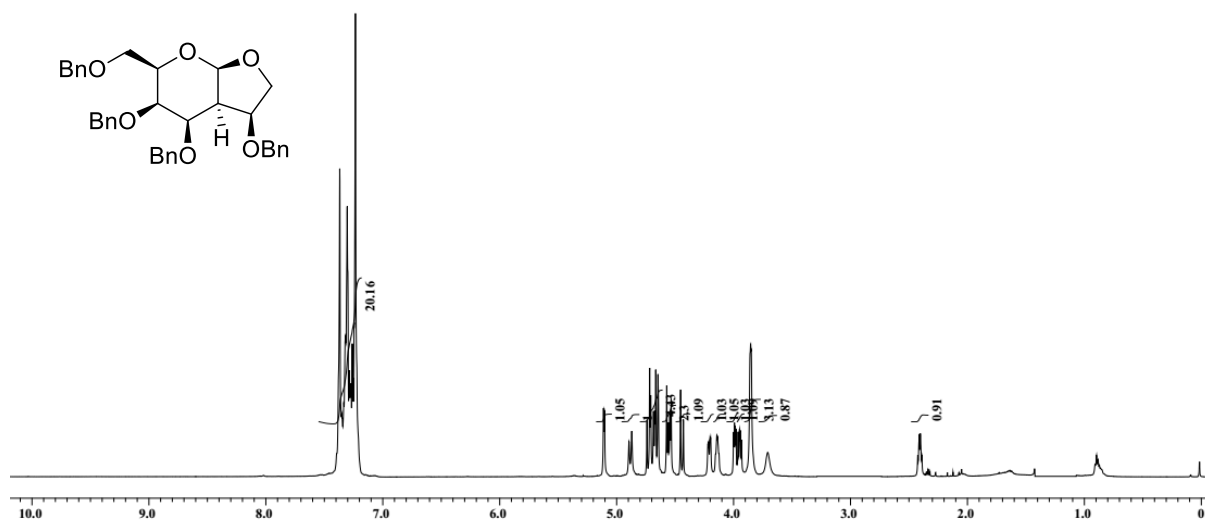
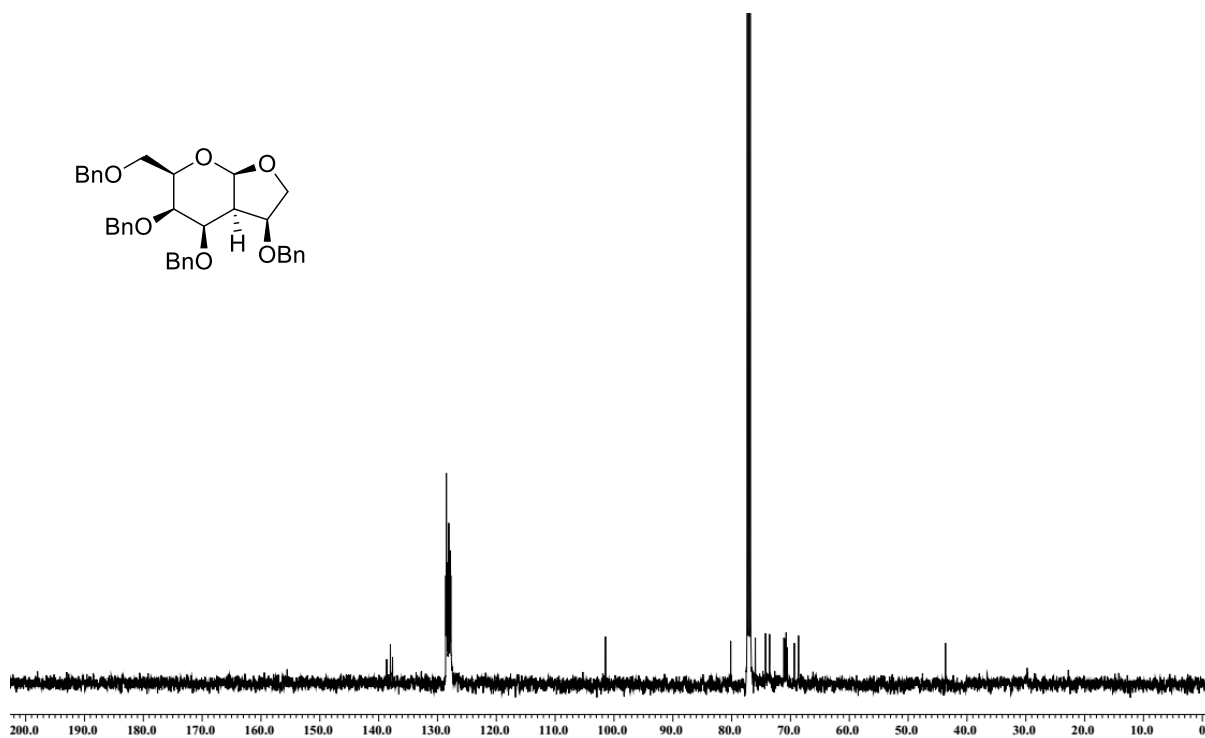


Figure S 8. ¹³C NMR spectrum of compound 20b.

Figure S 9. ¹H NMR spectrum of compound 21.Figure S 10. ¹³C NMR spectrum of compound 21.

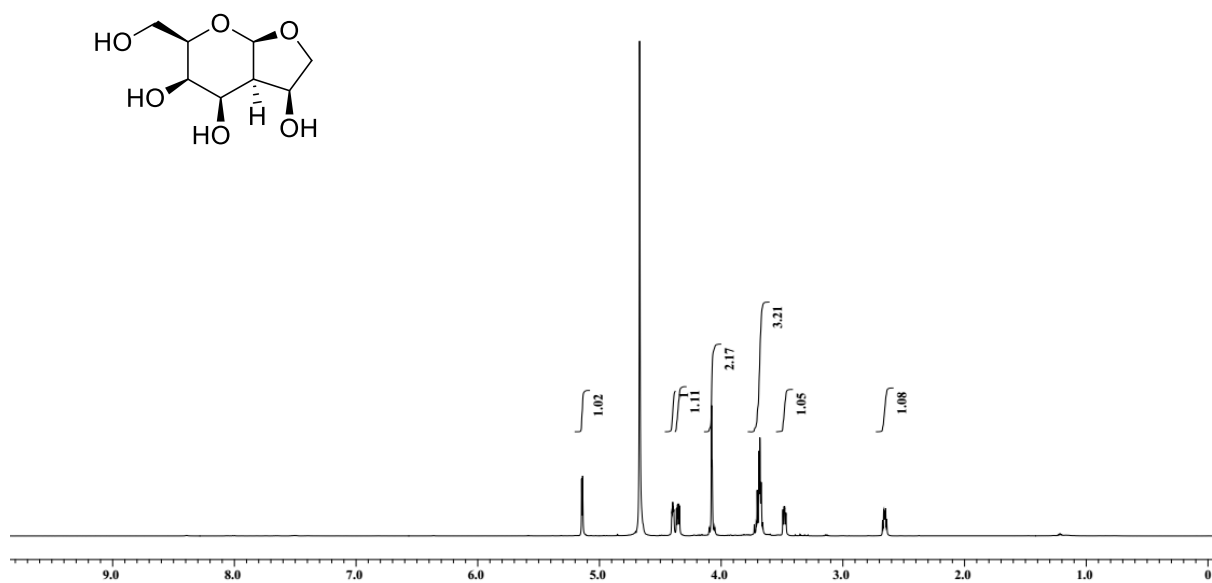


Figure S 11. ¹H NMR spectrum of compound 22.

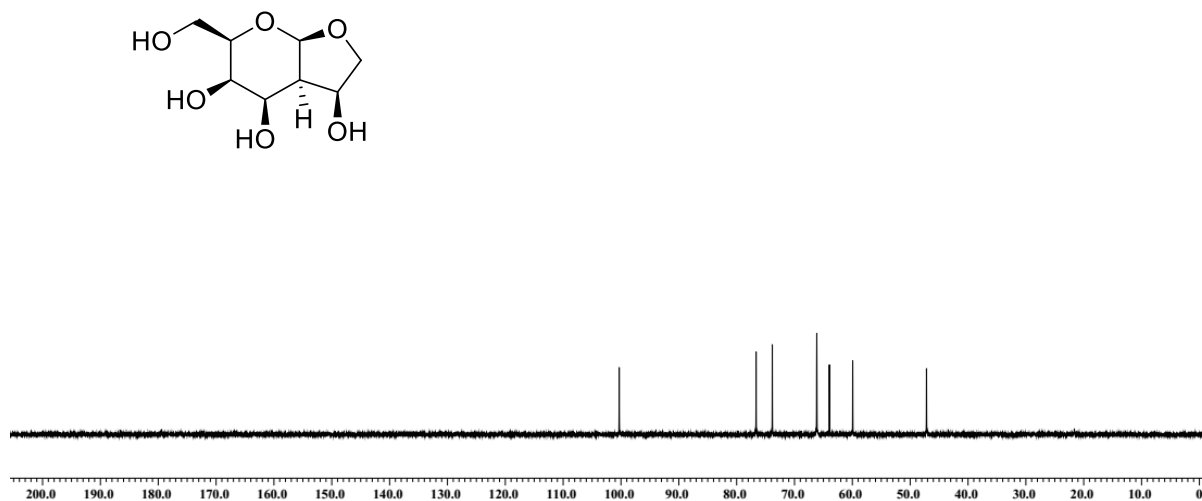


Figure S 12. ¹³C NMR spectrum of compound 22.

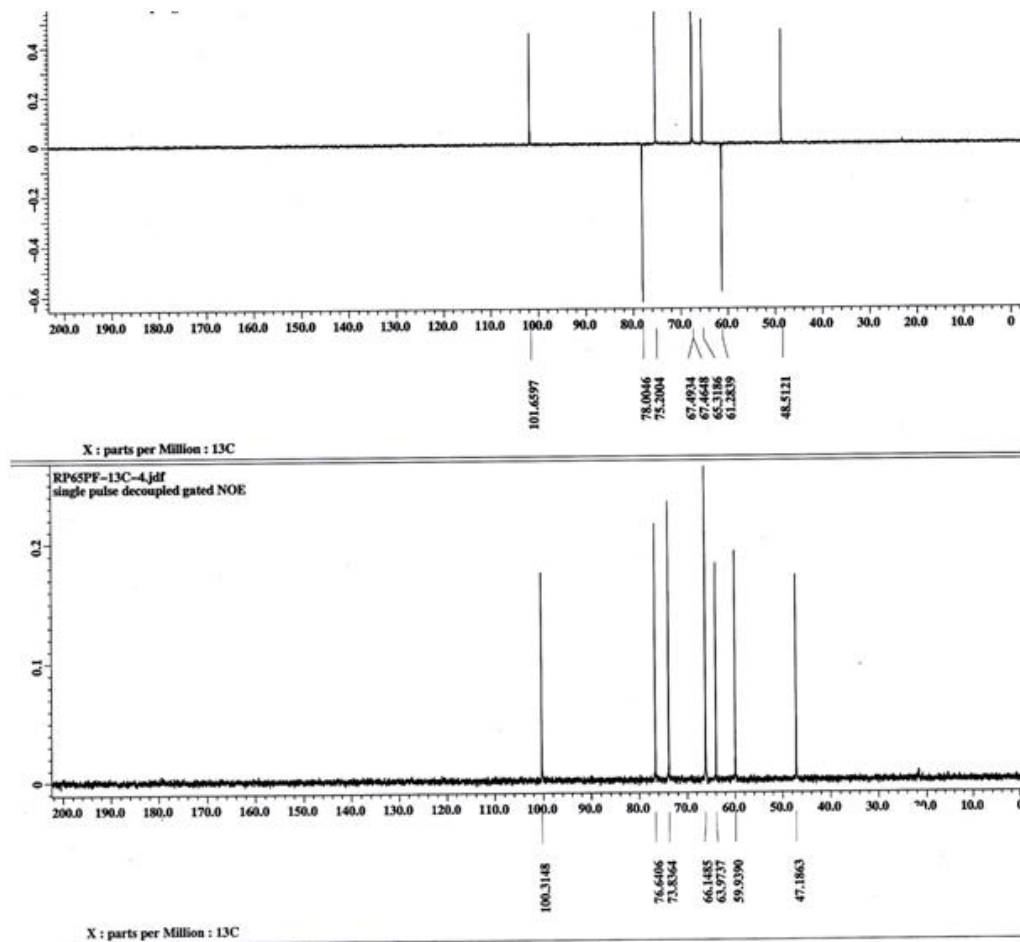
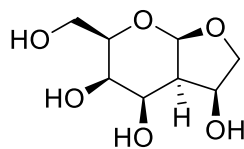
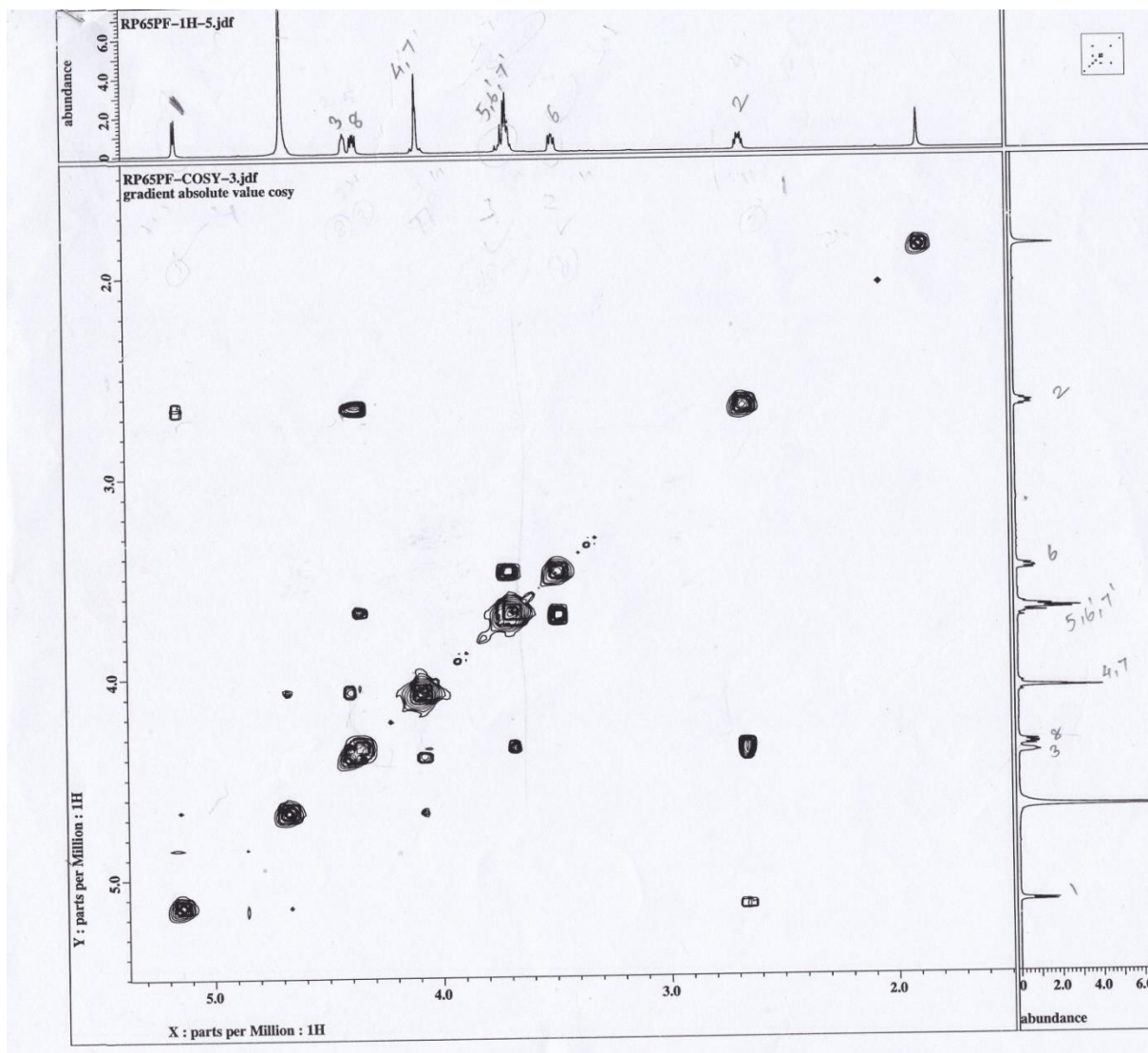


Figure S 13. Dept-135 spectrum of compound 22.



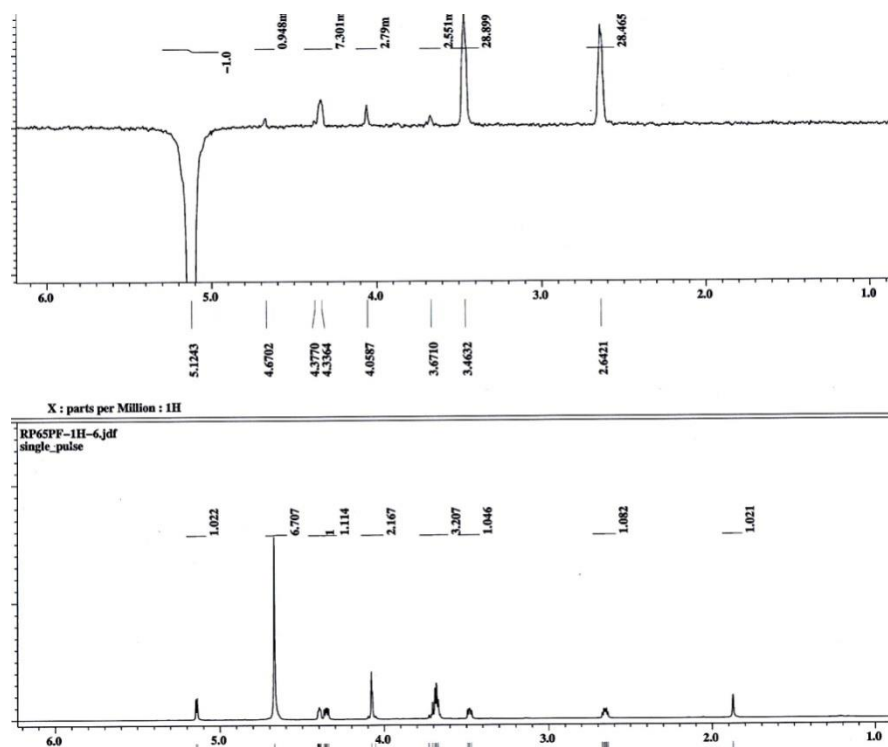


Figure S 15. nOe spectrum of compound 22 for irradiation of H-1.

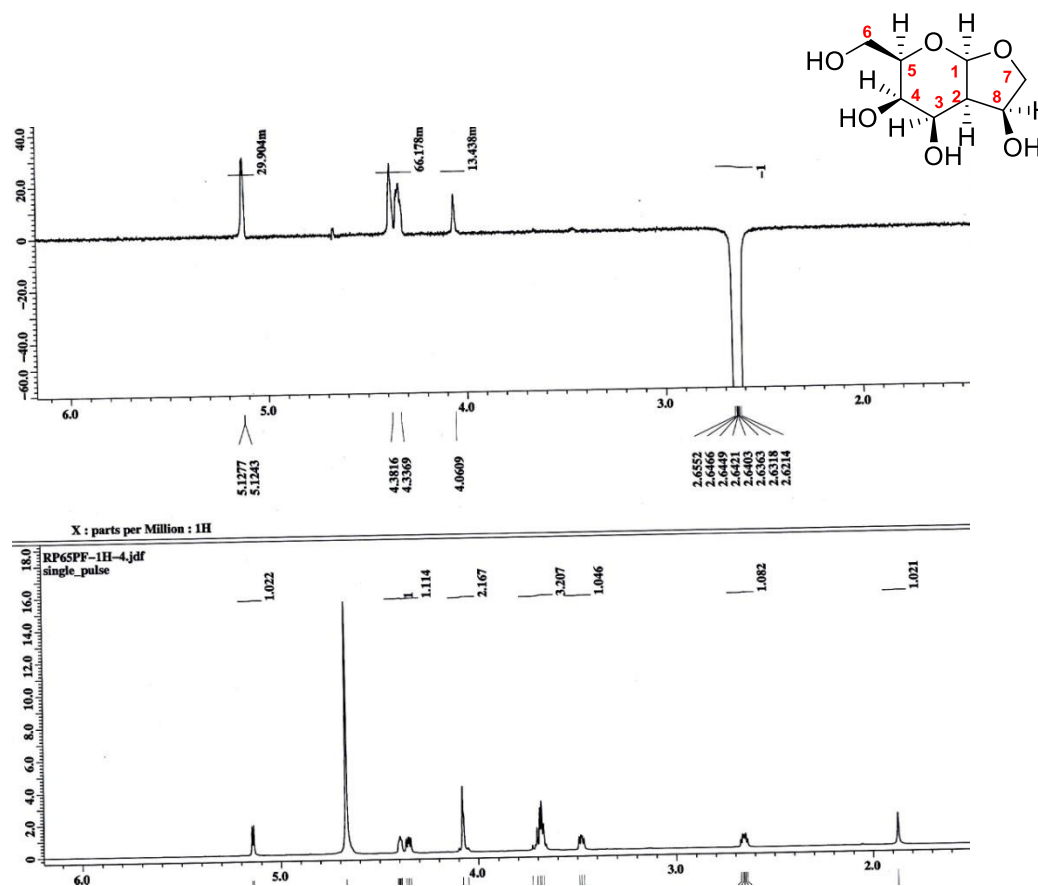
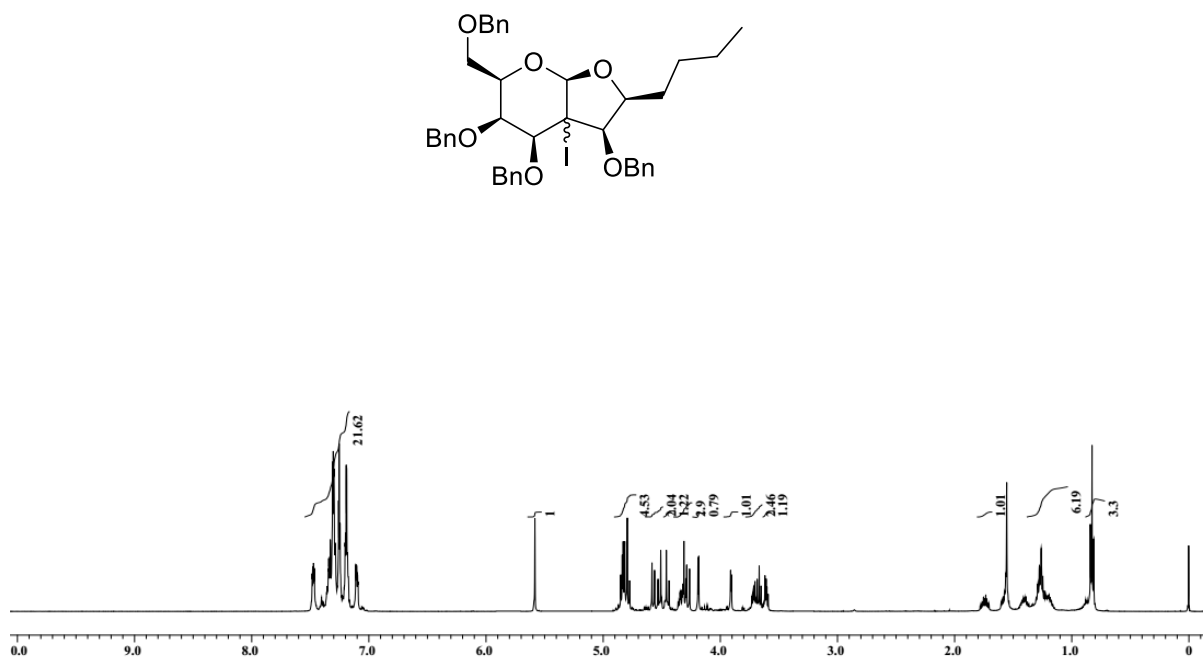
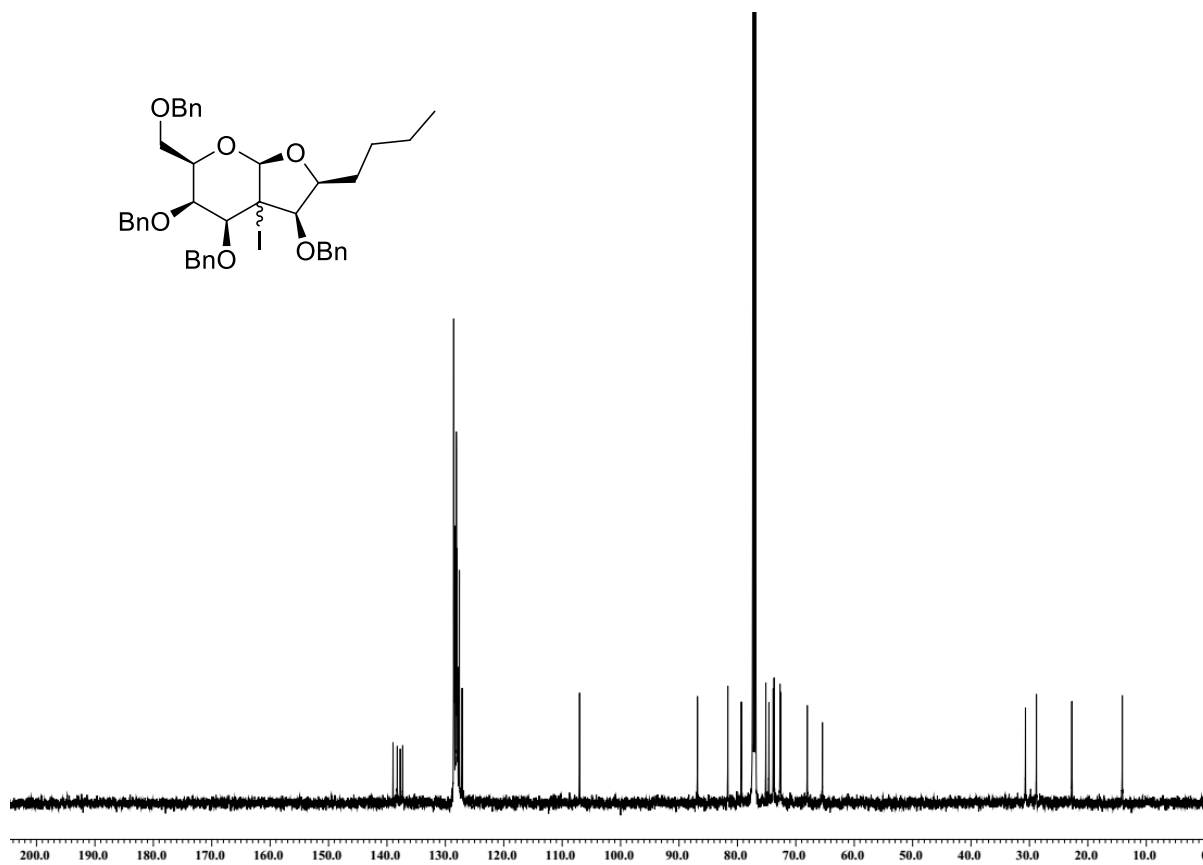
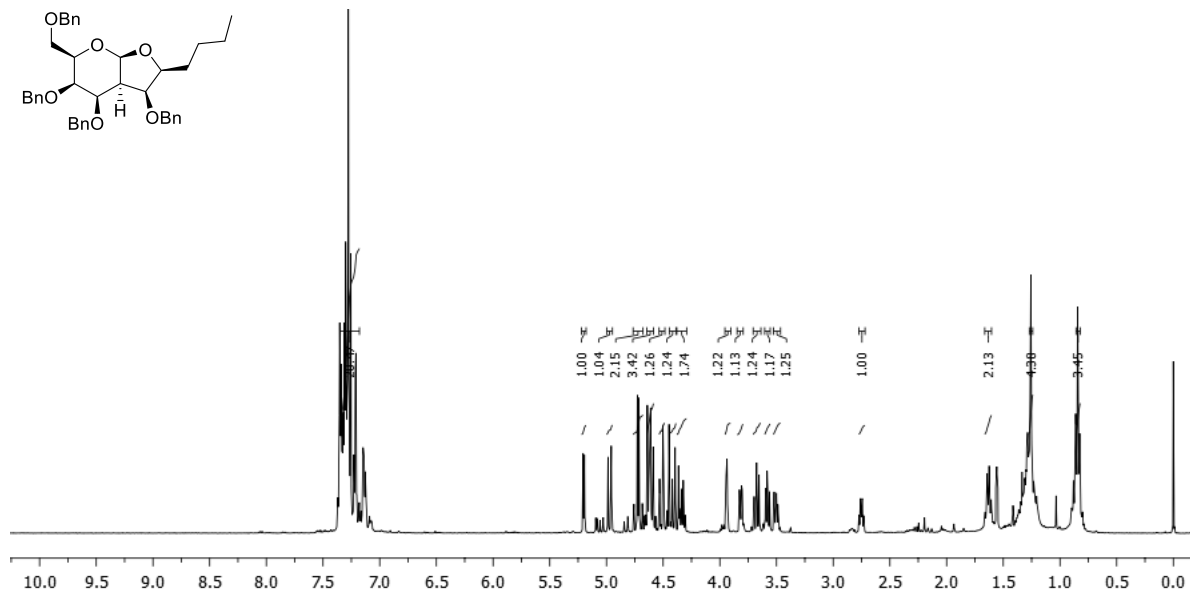
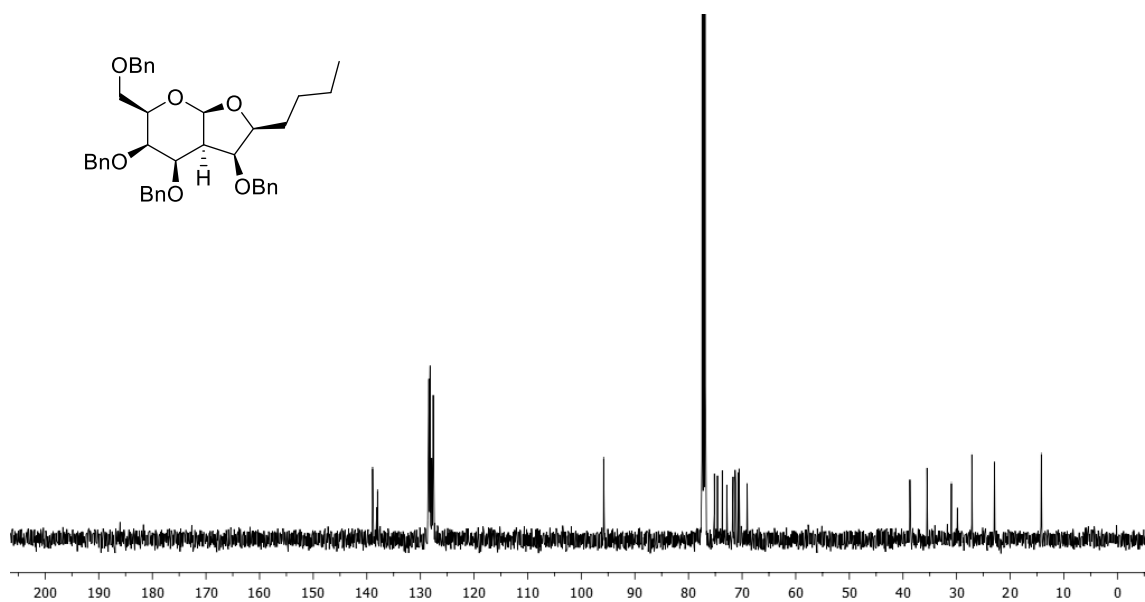
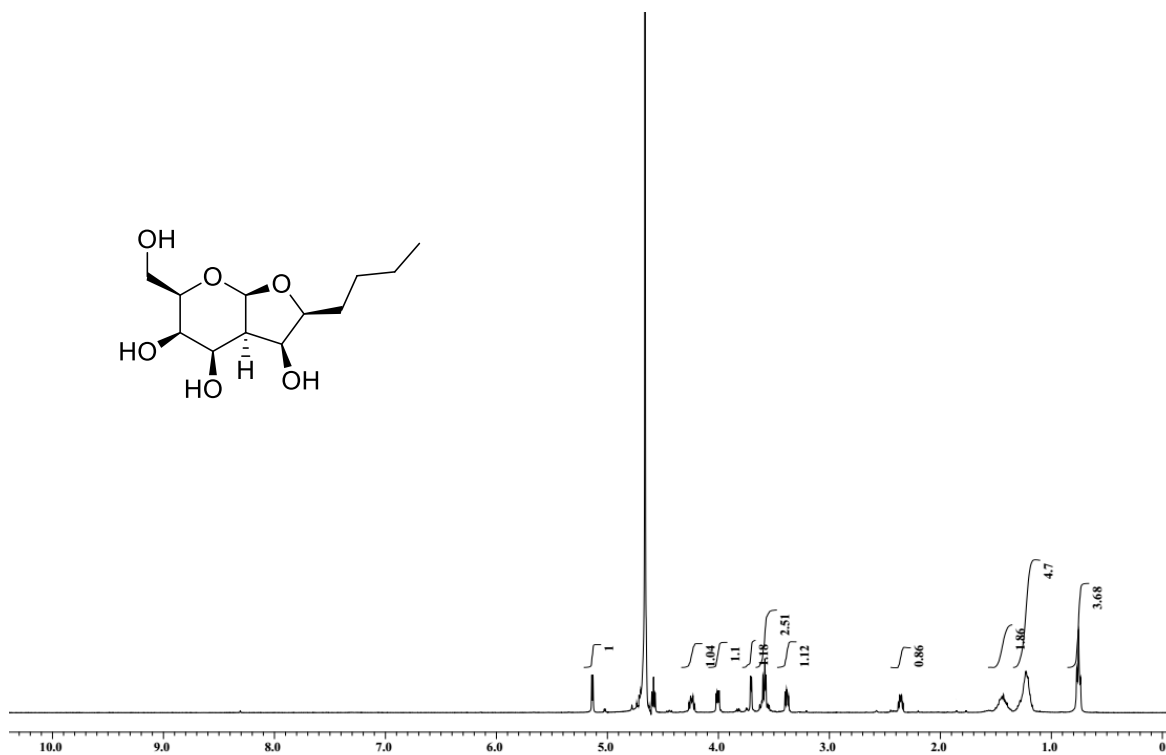
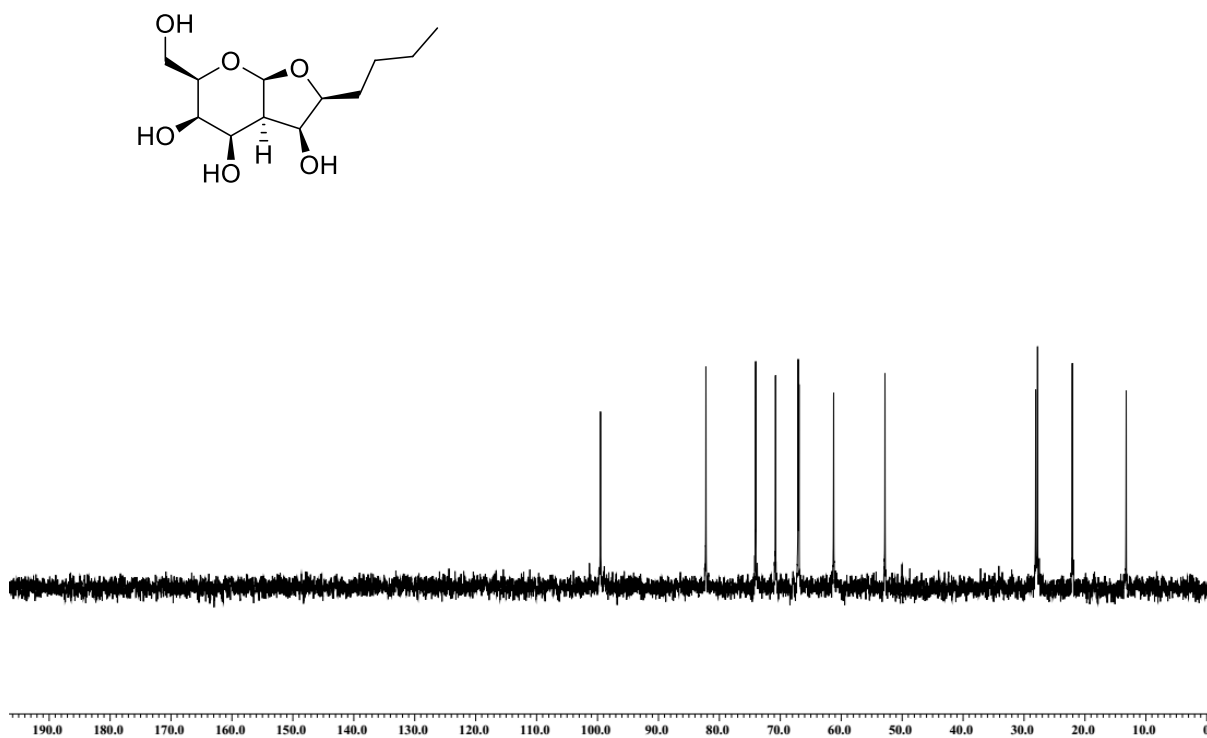
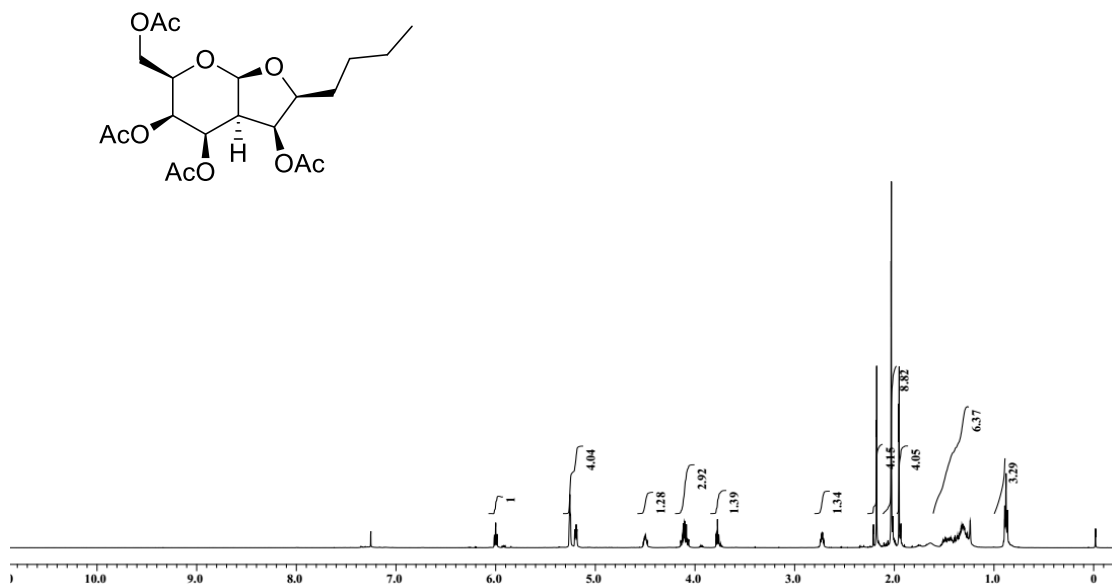
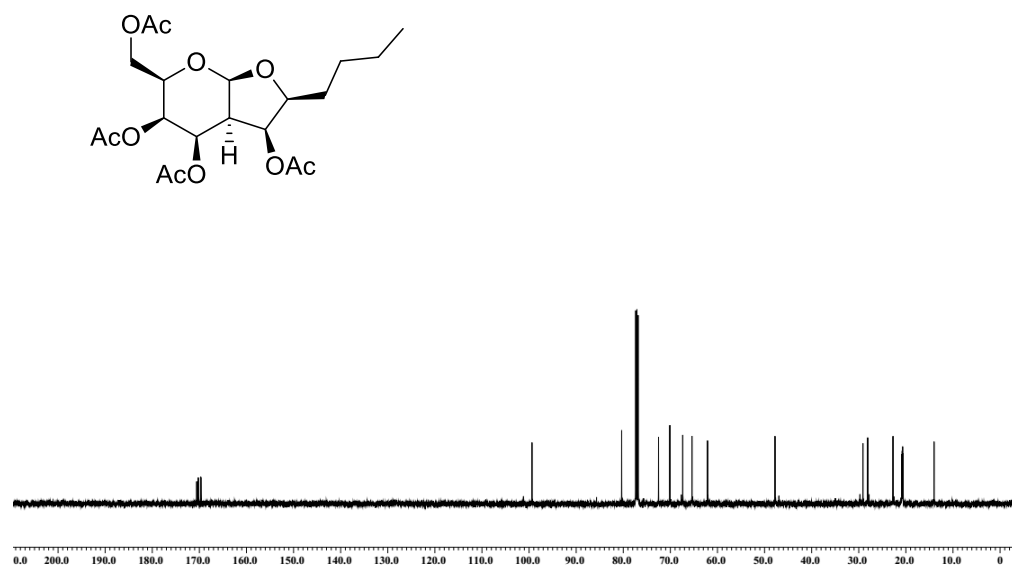


Figure S 16. nOe spectrum of compound 22 for irradiation of H-2.

Figure S 17. ¹H NMR spectrum of compound 23.Figure S 18. ¹³C NMR spectrum of compound 23.

Figure S 19. ¹H NMR spectrum of compound 24.Figure S 20. ¹³C NMR spectrum of compound 24.

Figure S 21. ¹H NMR spectrum of compound 25.Figure S 22. ¹³C NMR spectrum of compound 25.

Figure S 23. ^1H NMR spectrum of compound 26.Figure S 24. ^{13}C NMR spectrum of compound 26.

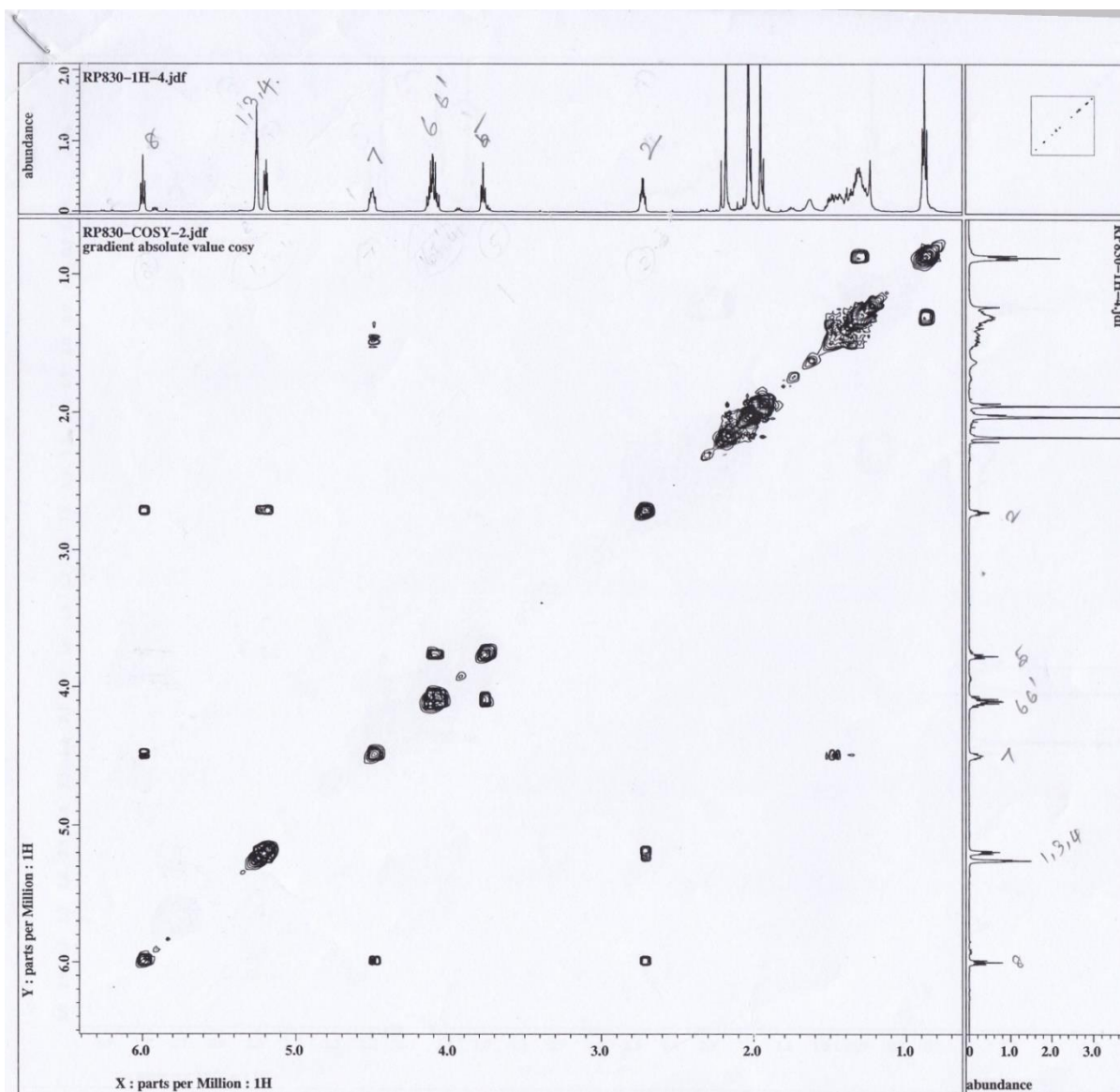
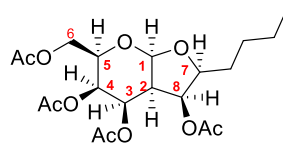


Figure S 25. ^1H - ^1H COSY spectrum of compound 26.

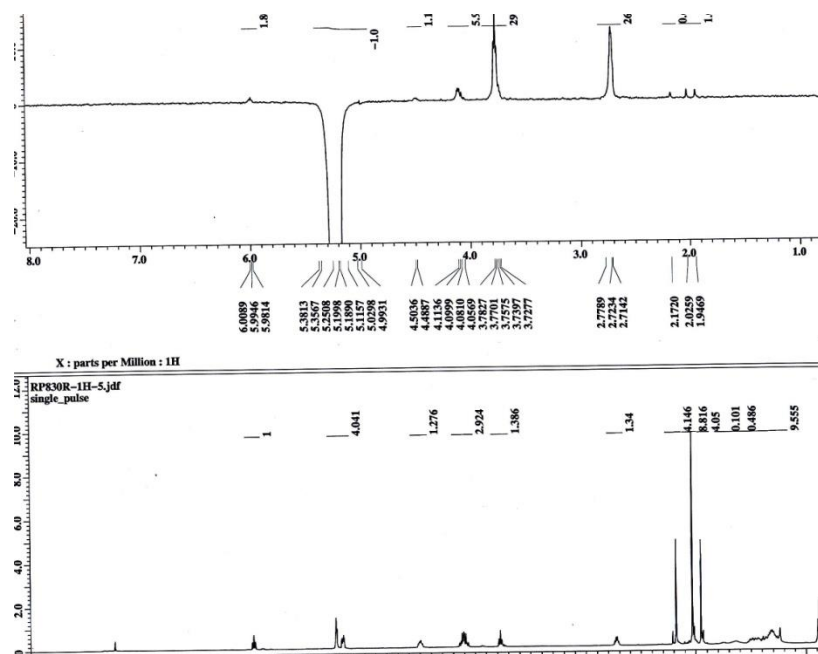


Figure S 26. nOe spectrum of compound 26 for irradiation of H-1.



Figure S 27. nOe spectrum of compound 26 for irradiation of H-2.

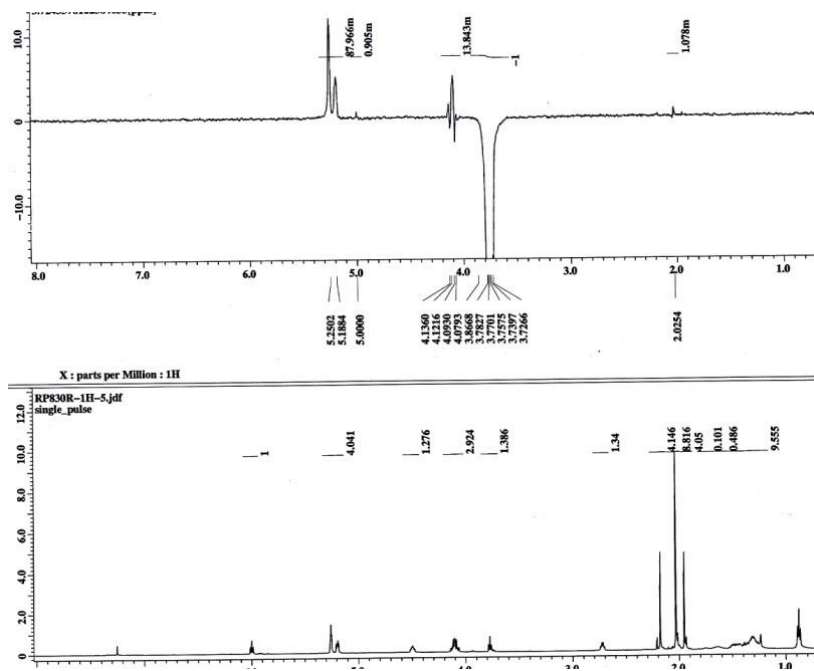


Figure S 28. nOe spectrum of compound 26 for irradiation of H-5.

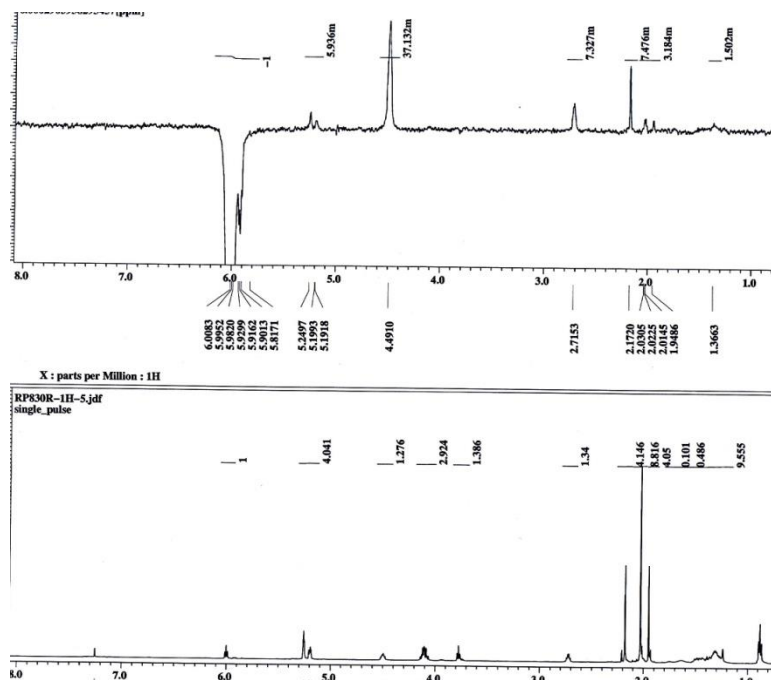
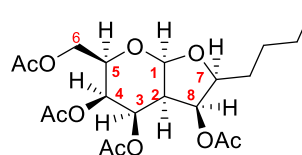
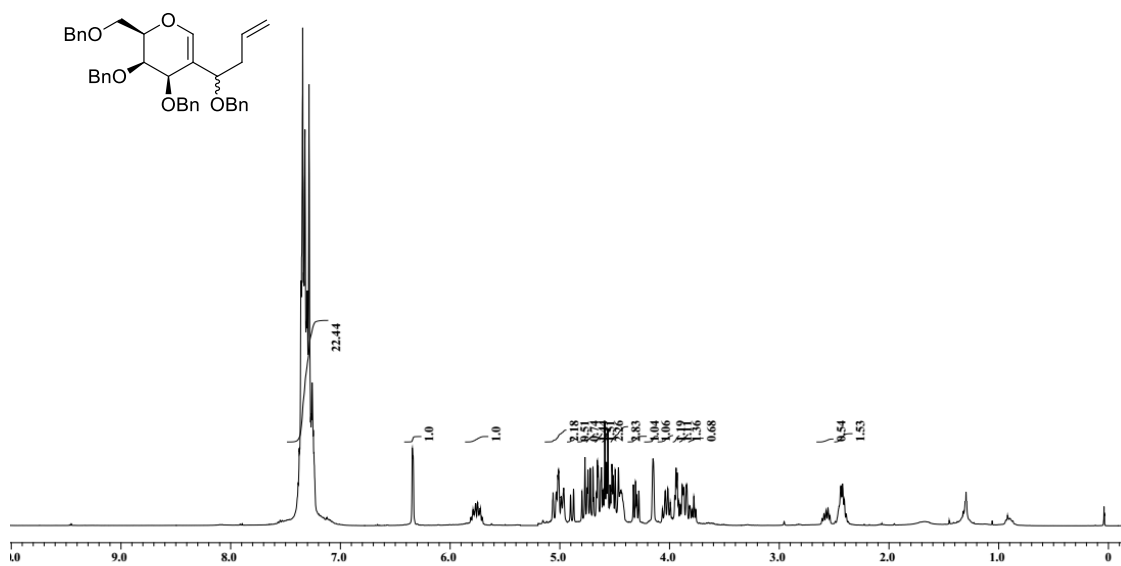
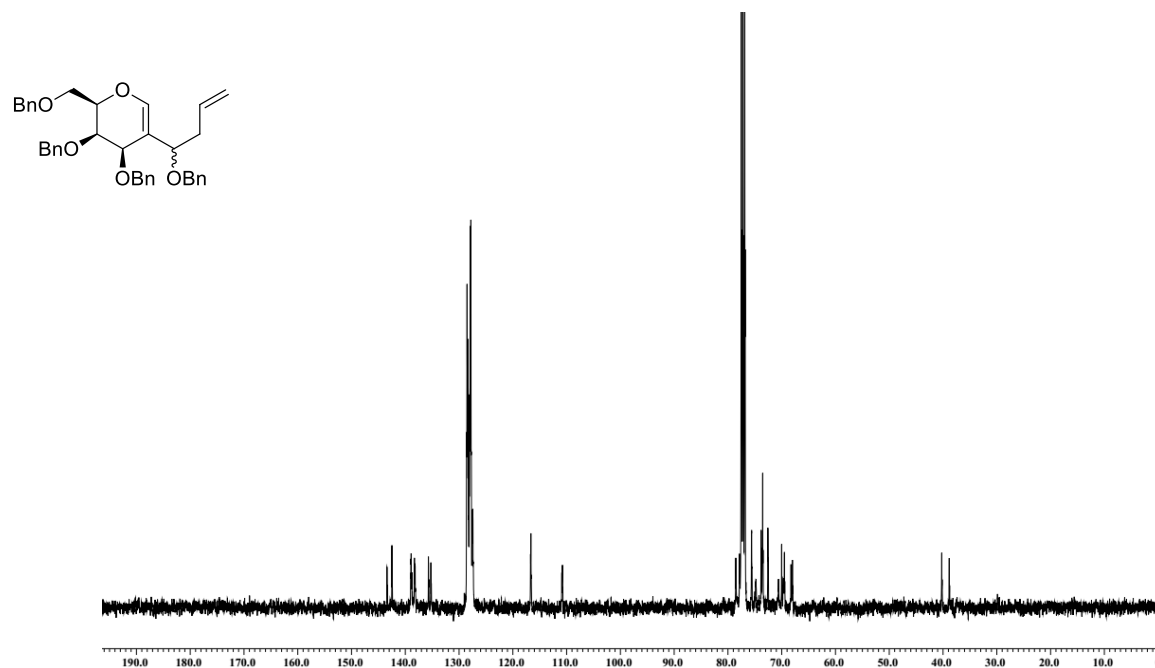
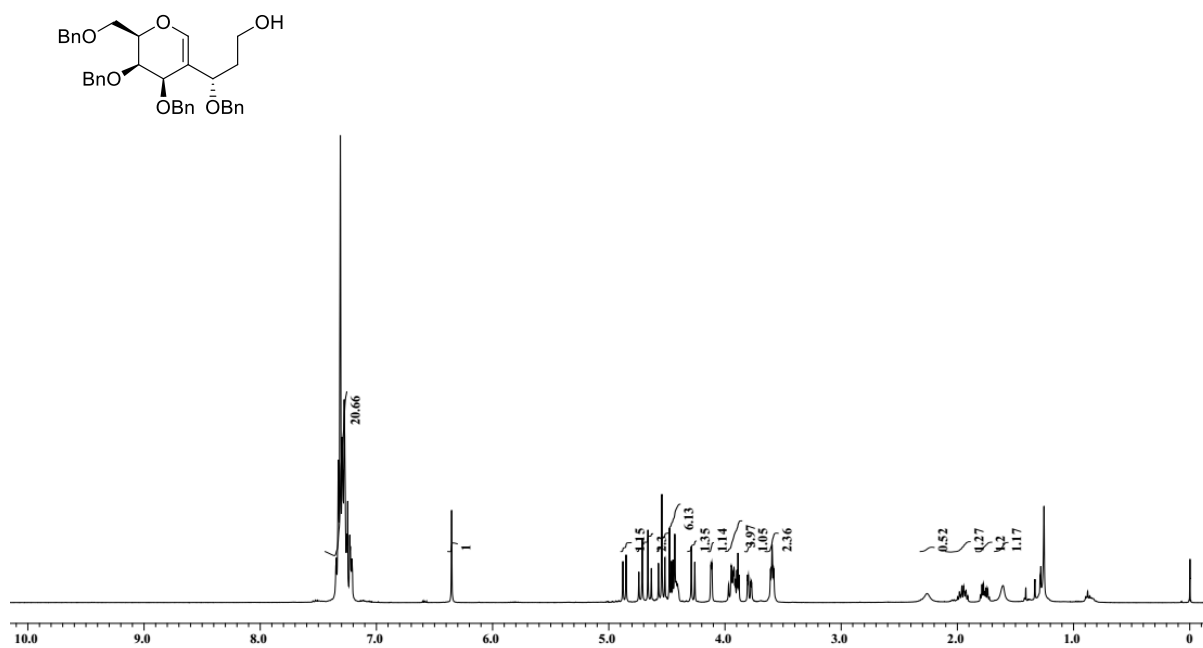
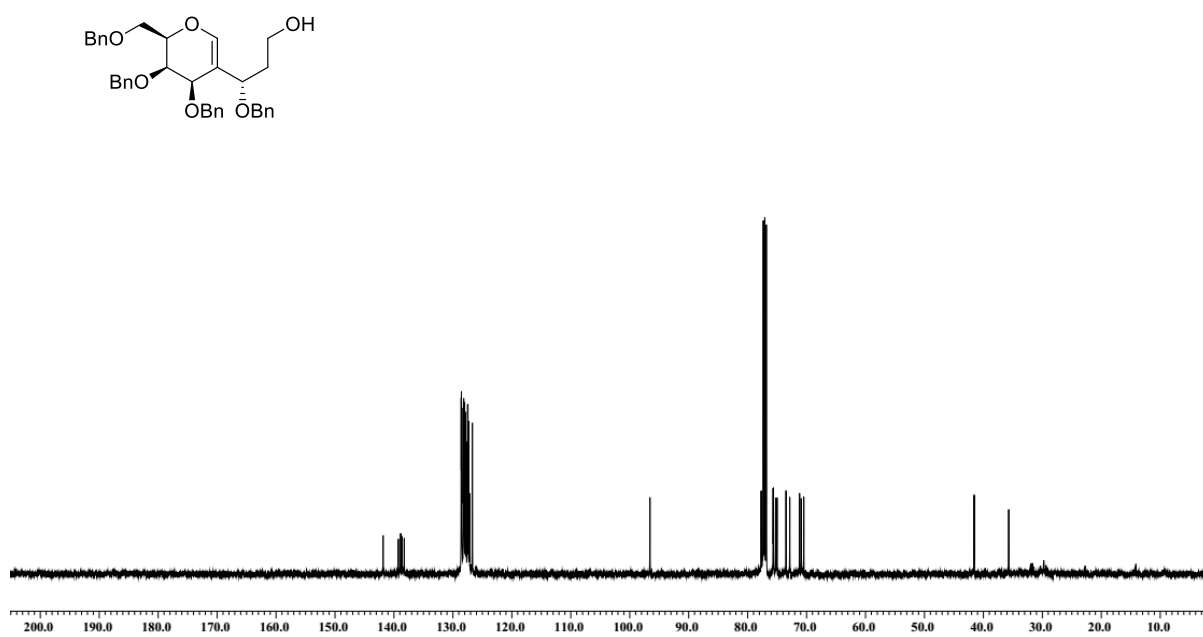


Figure S 29. nOe spectrum of compound 26 for irradiation of H-8.

Figure S 30. ¹H NMR spectrum of compound 27.Figure S 31. ¹³C NMR spectrum of compound 27.

Figure S 32. ¹H NMR spectrum of compound 28a.Figure S 33. ¹³C NMR spectrum of compound 28a.

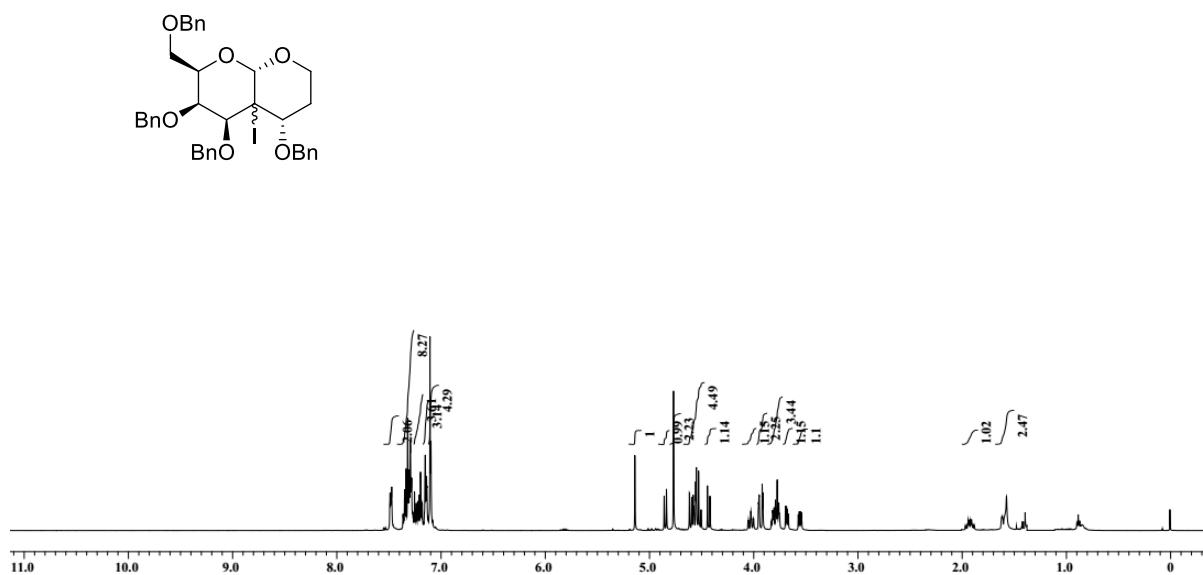


Figure S 34. ¹H NMR spectrum of compound 29.

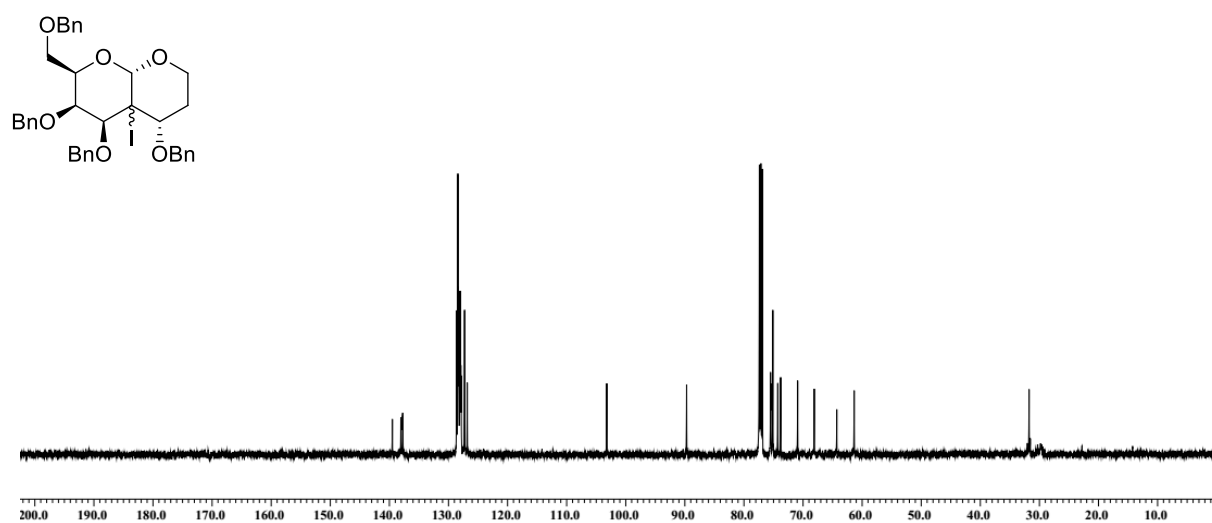
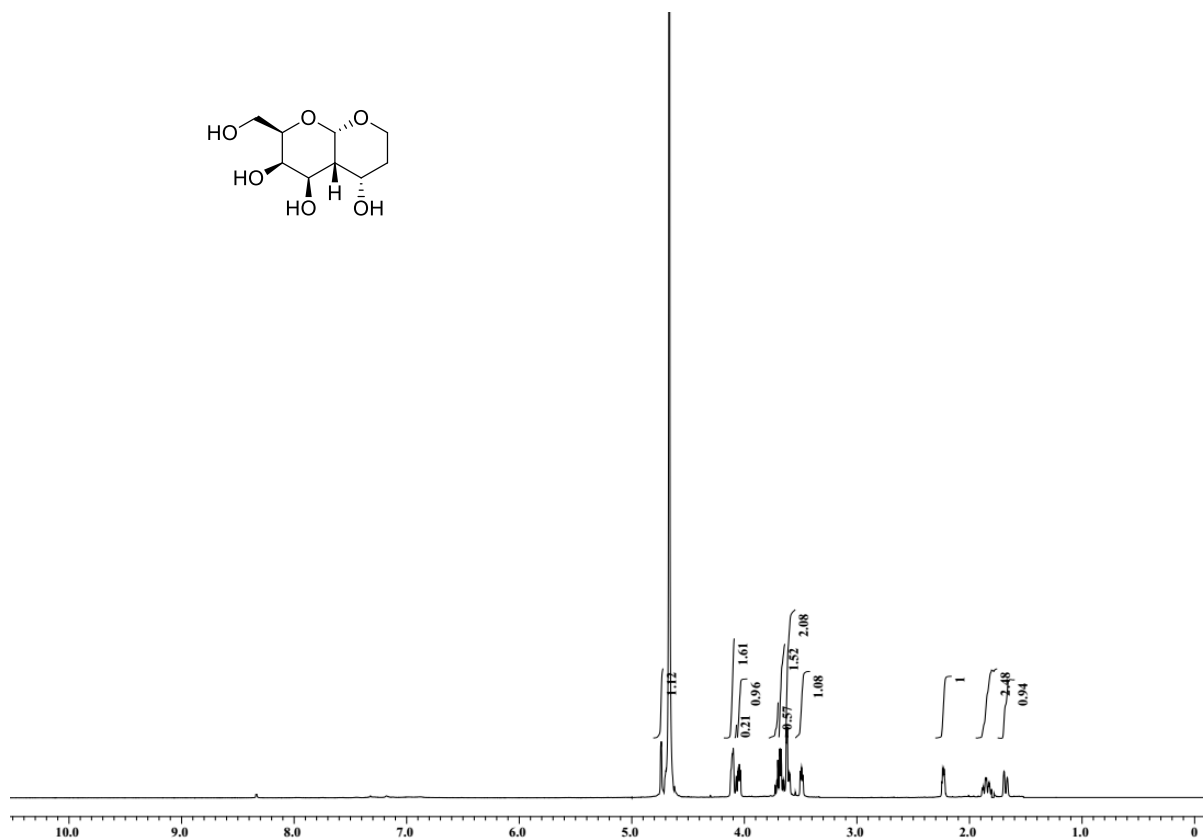
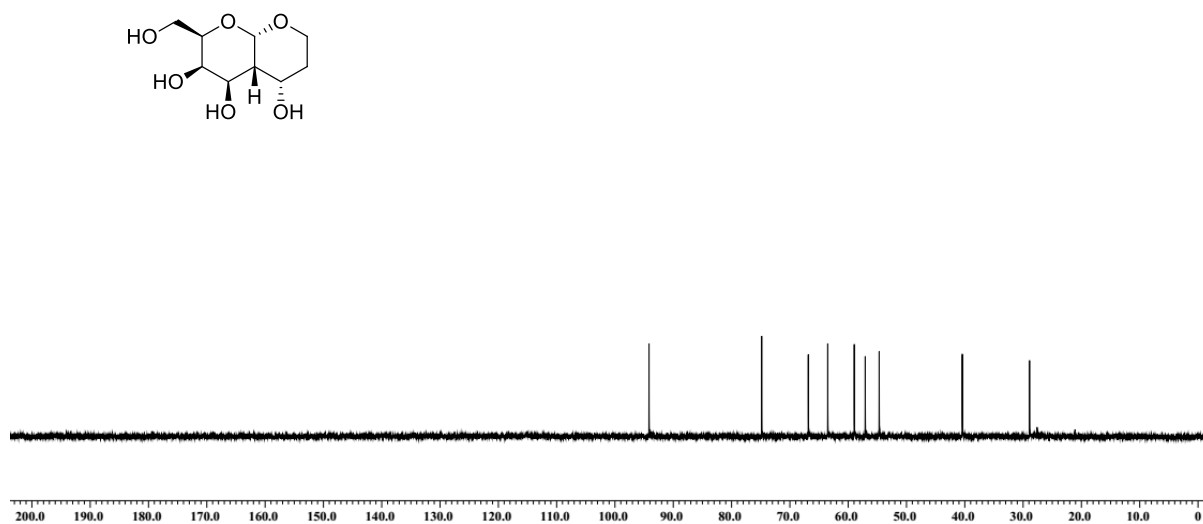
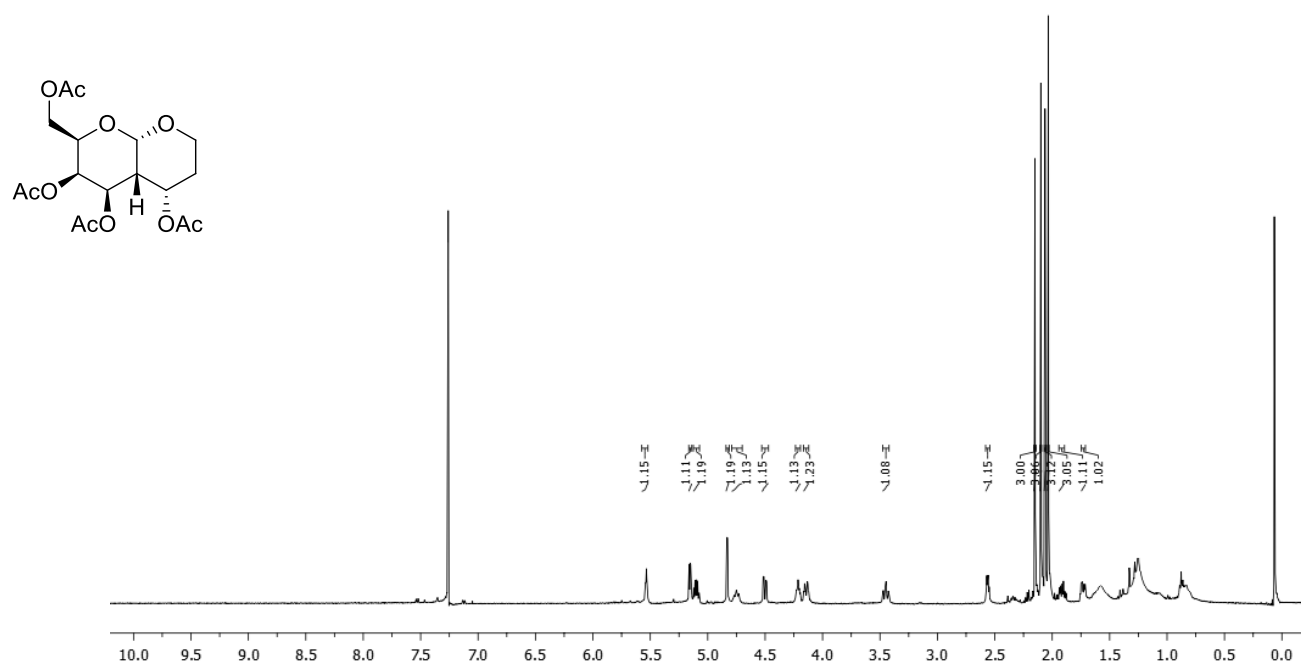
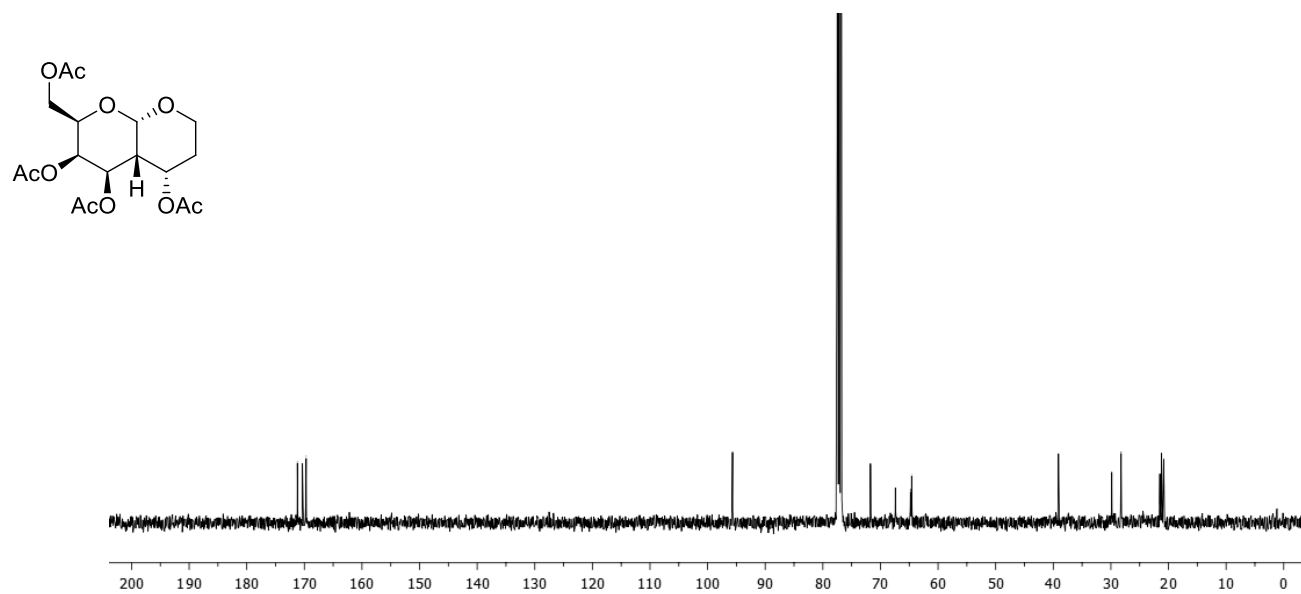


Figure S 35. ¹³C NMR spectrum of compound 29.

Figure S 36. ¹H NMR spectrum of compound 31.Figure S 37. ¹³C NMR spectrum of compound 31.

Figure S 38. ¹H NMR spectrum of compound 32.Figure S 39. ¹³C NMR spectrum of compound 32.

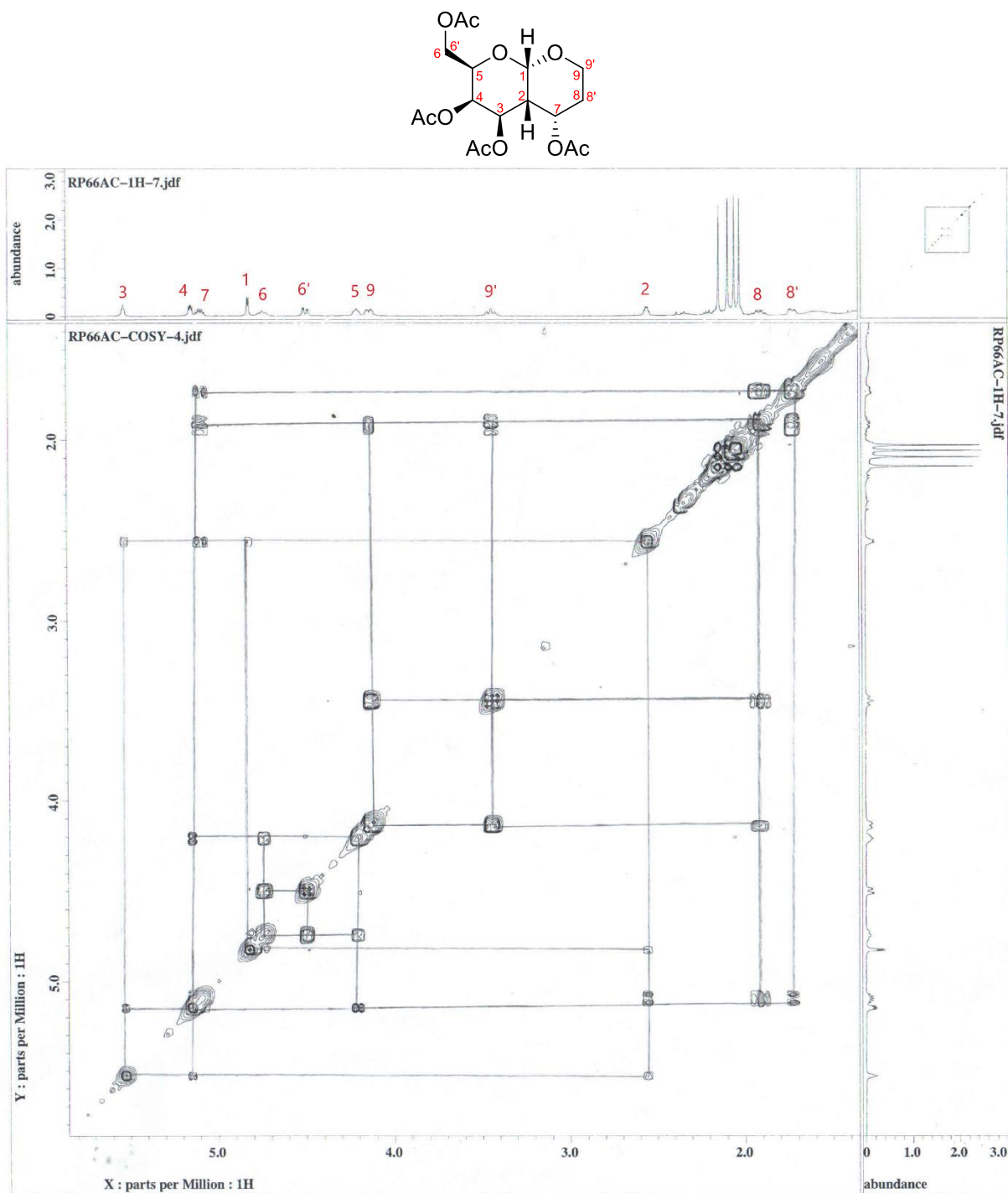


Figure S 40. ^1H - ^1H COSY spectrum of compound 32.

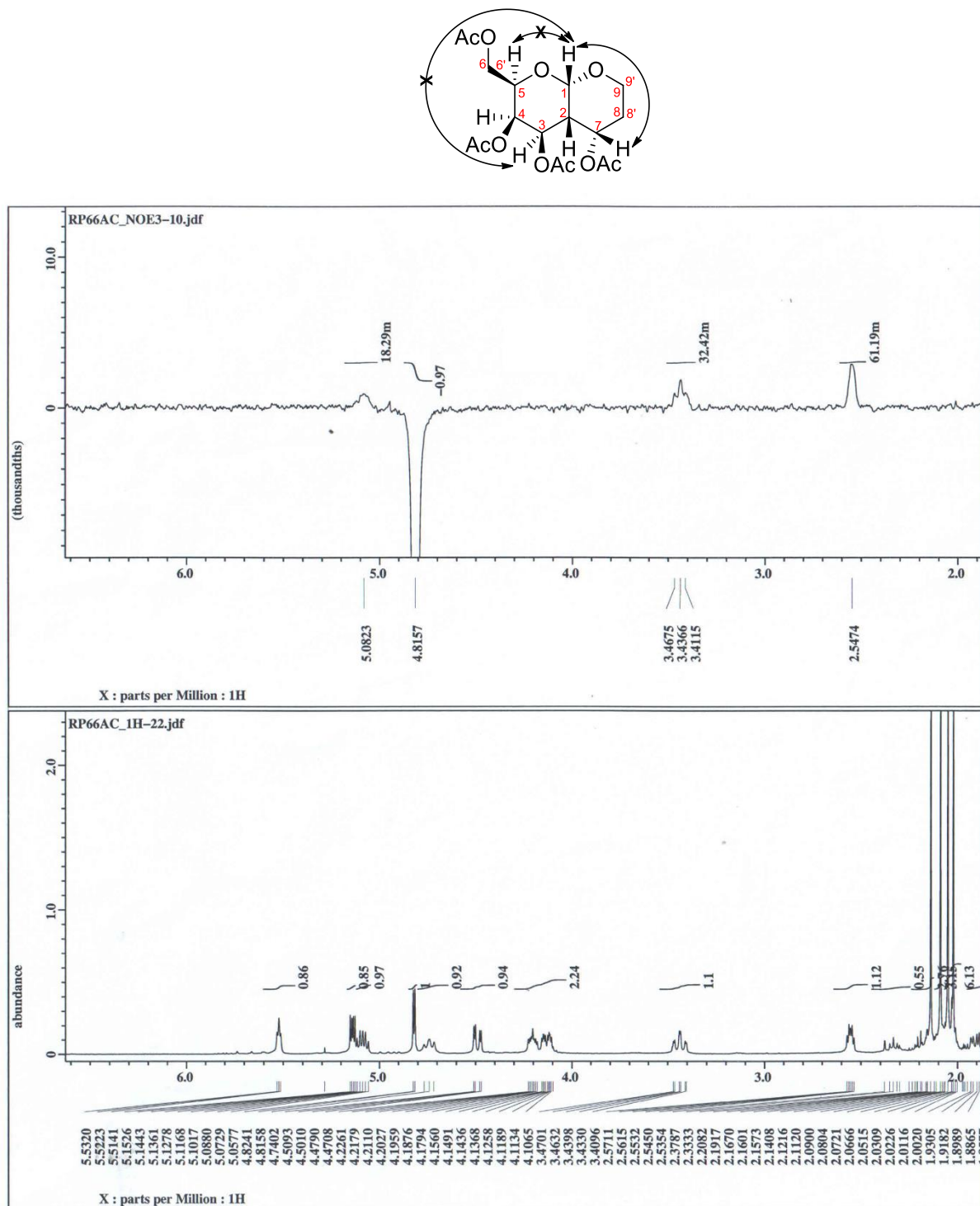


Figure S 41. nOe spectrum of compound 32 for irradiation of H-1.

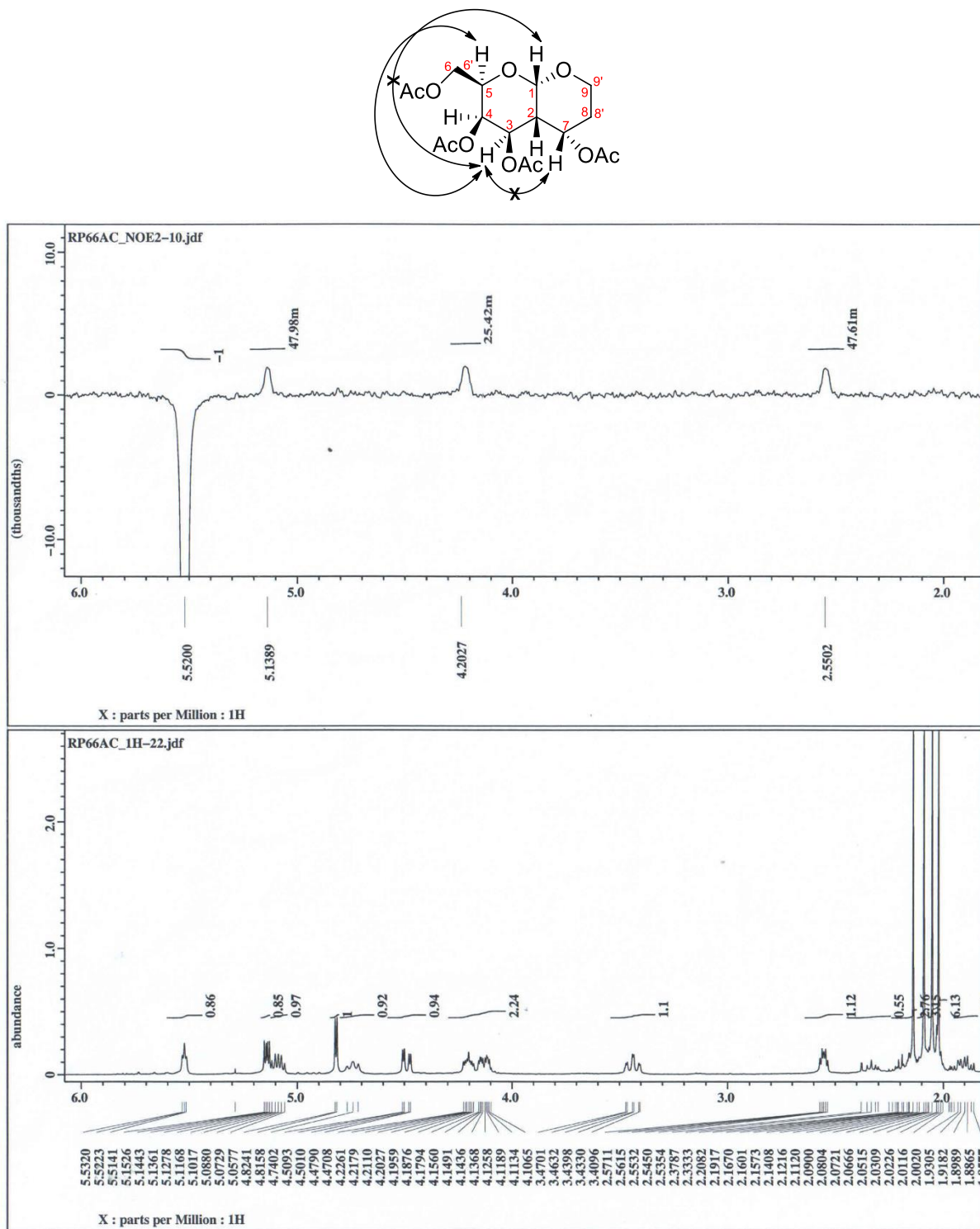


Figure S 42. nOe spectrum of compound 32 for irradiation of H-3.

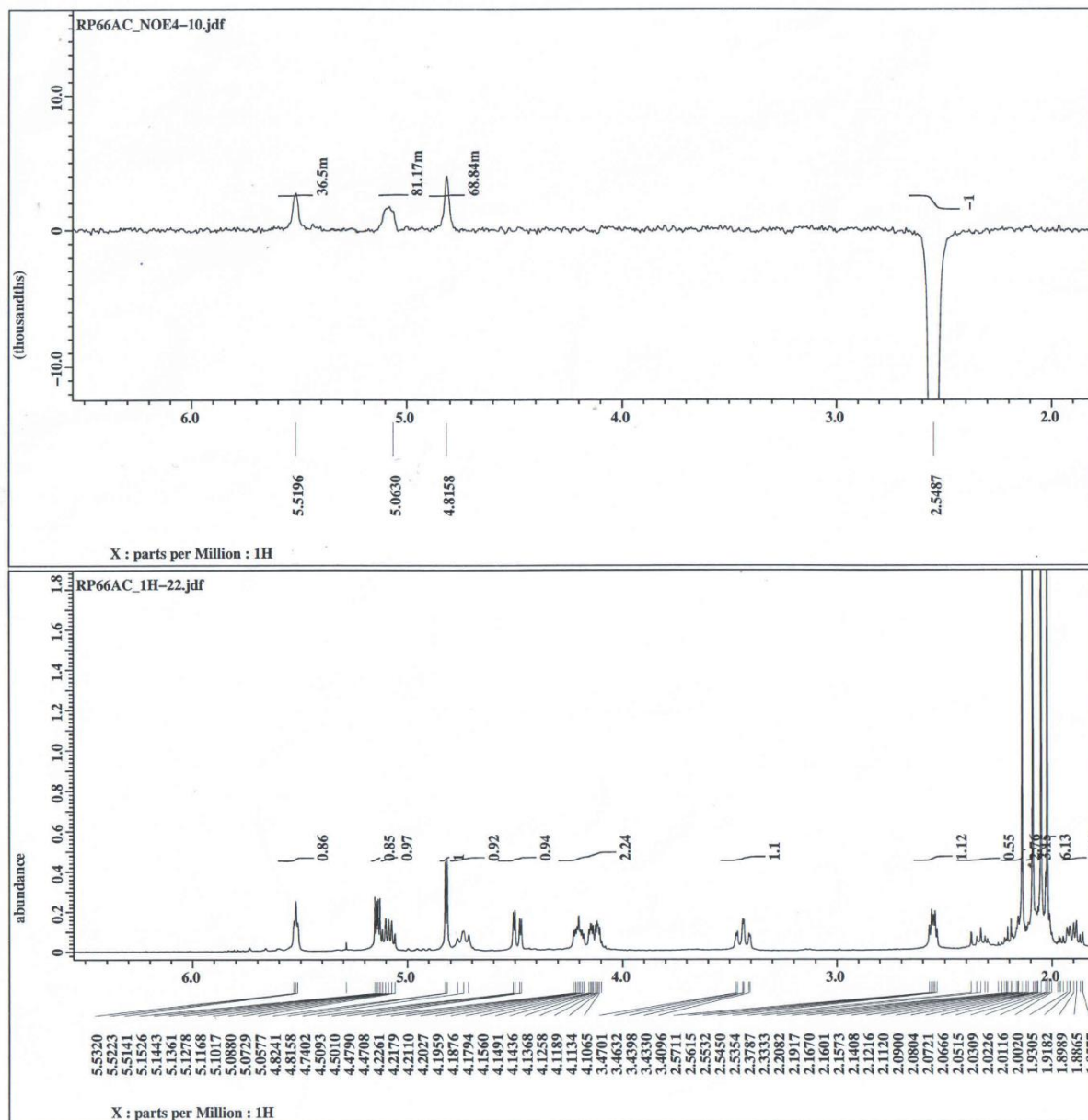
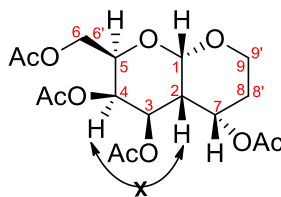


Figure S 43. nOe spectrum of compound 32 for irradiation of H-2.