Supplementary Materials

A practical, laboratory-scale synthesis of all the isomeric forms of the terpene linalool oxide

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1. Study of the benzoylation of the crude mixture of the linalool oxide isomers obtained from linalool.

A sample of a mixture of linalool oxide isomers (1.7 g, 10 mMol, furanoid/pyranoid ratio = 81:19) was dissolved in dry CH_2Cl_2 (4 mL) and was treated under stirring with 1 mL of pyridine followed by the addition of BzCl, according to the experimental conditions indicated in Table 1. Hence, the reaction was poured into a mixture of crushed ice (50 g) and a saturated solution of $NaHCO_3$ aq. (50 mL). The resulting mixture was extracted with CH_2Cl_2 (2 x 50 mL) and the combined organic phases were dried (Na_2SO_4) and concentrated under reduced pressure. The residue was then analysed by GC-MS.

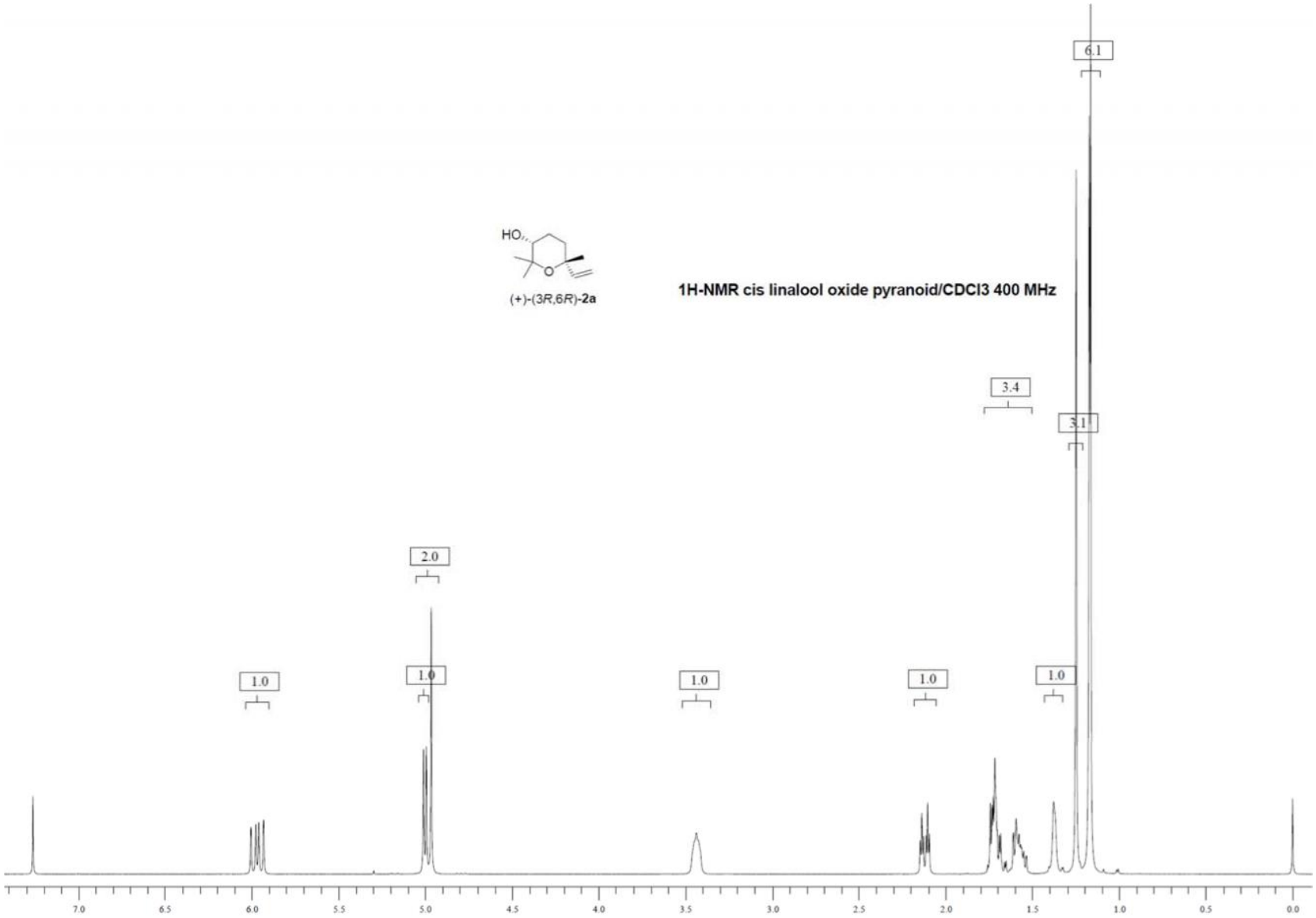

Figure S1. [1]H-NMR of the *cis* linalool oxide (pyranoid).

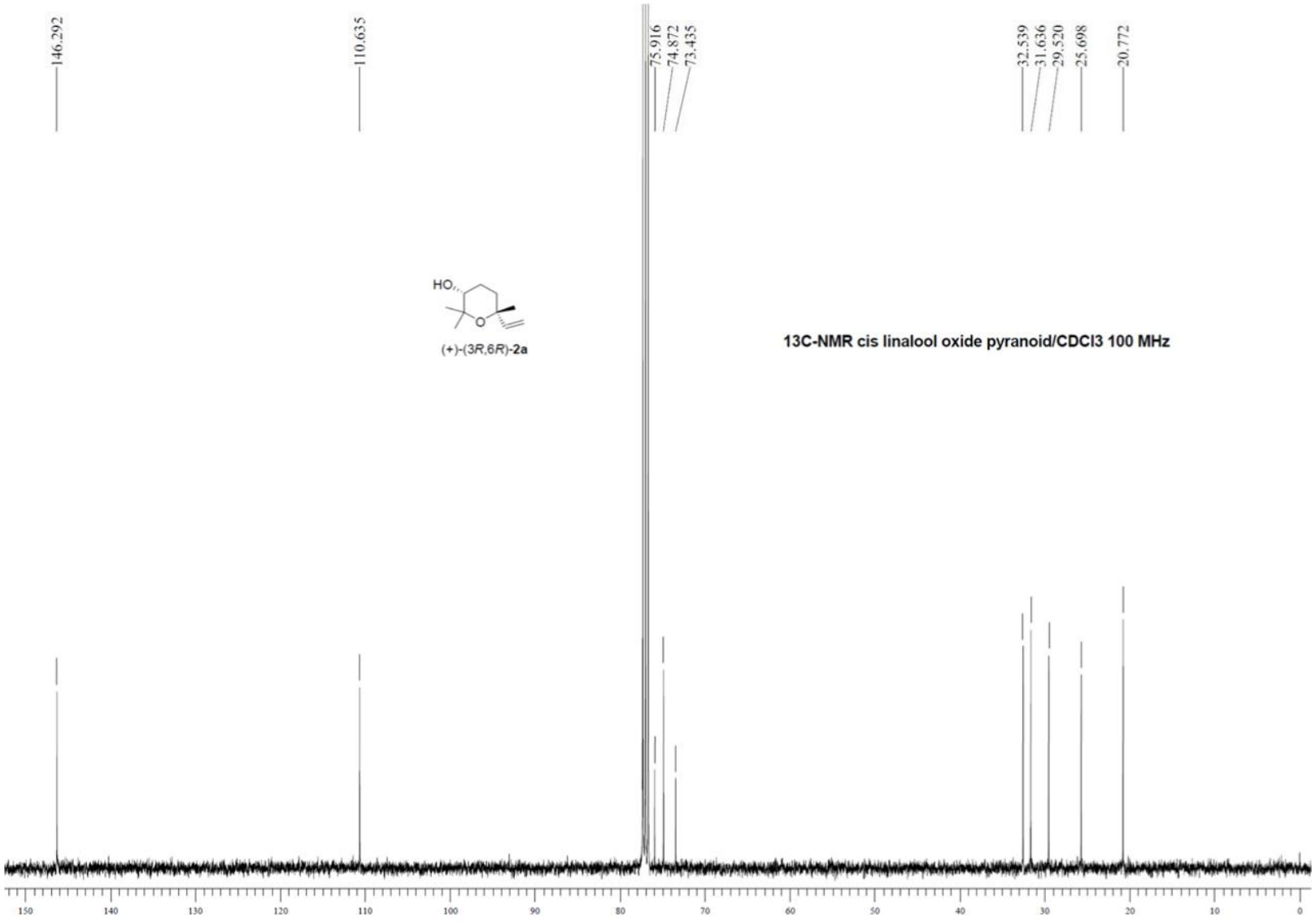

Figure S2. ^{13}C-NMR of the *cis* linalool oxide (pyranoid).

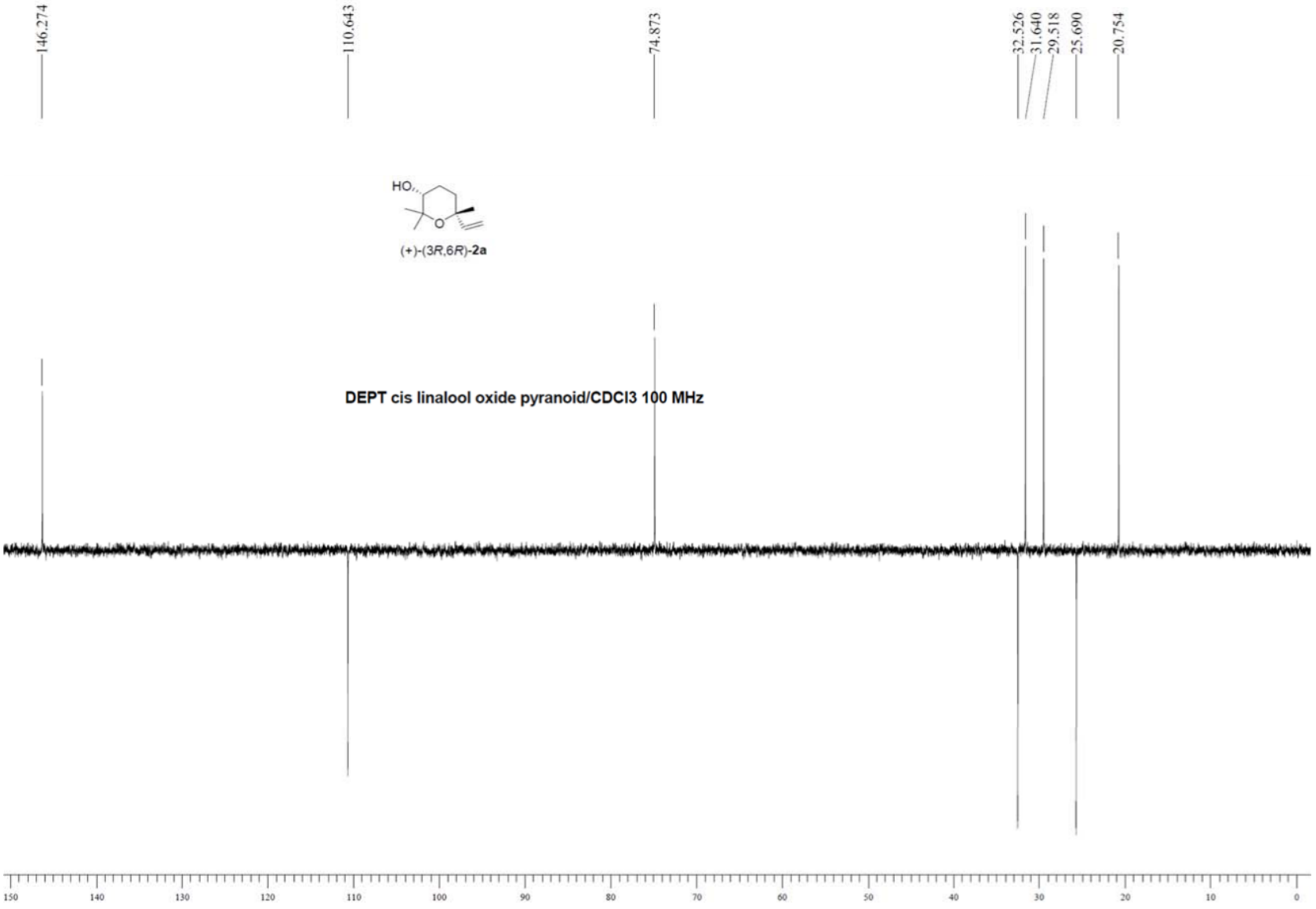

Figure S3. DEPT experiment of the *cis* linalool oxide (pyranoid).

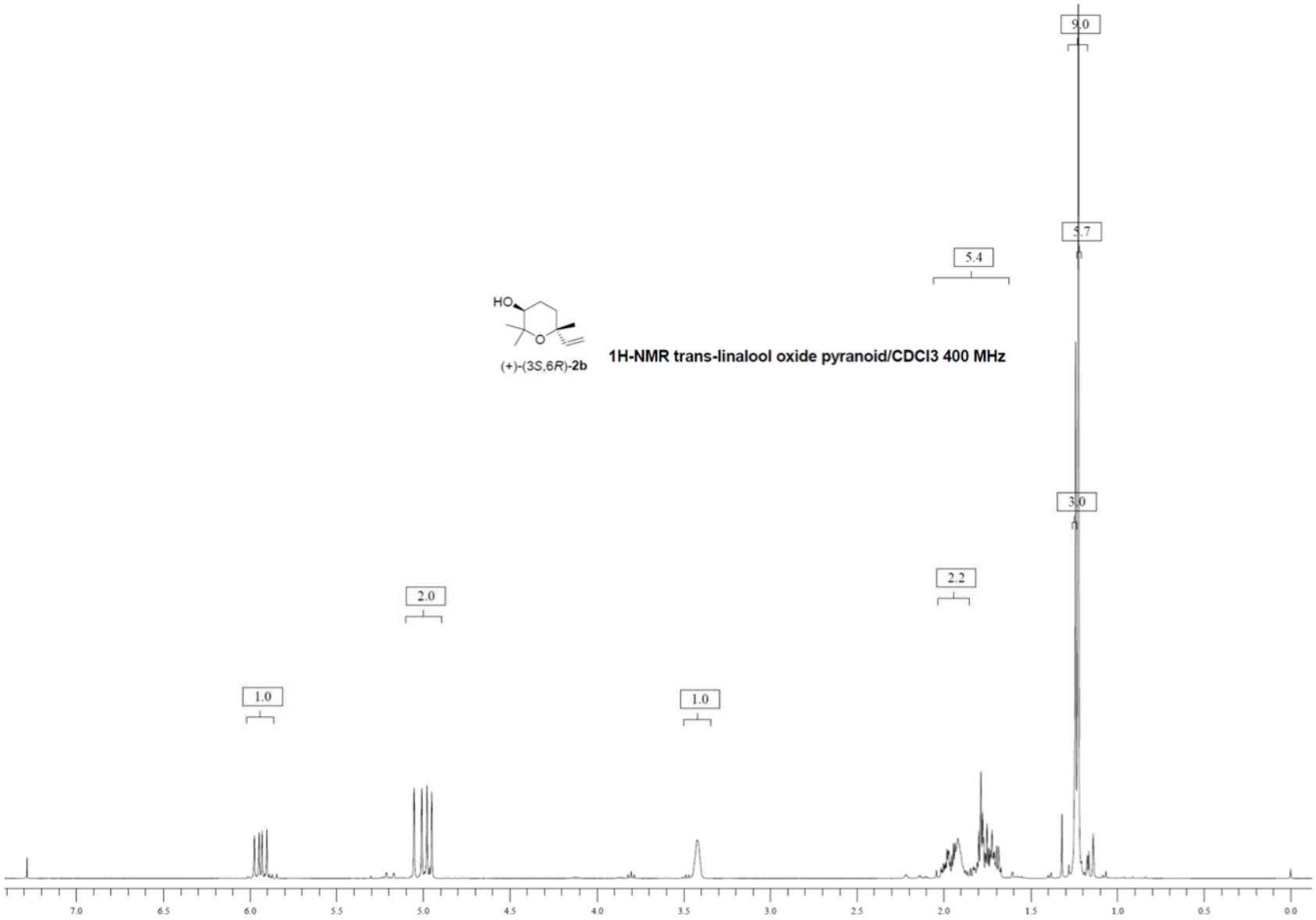

Figure S4. [1]H-NMR of the *trans* linalool oxide (pyranoid).

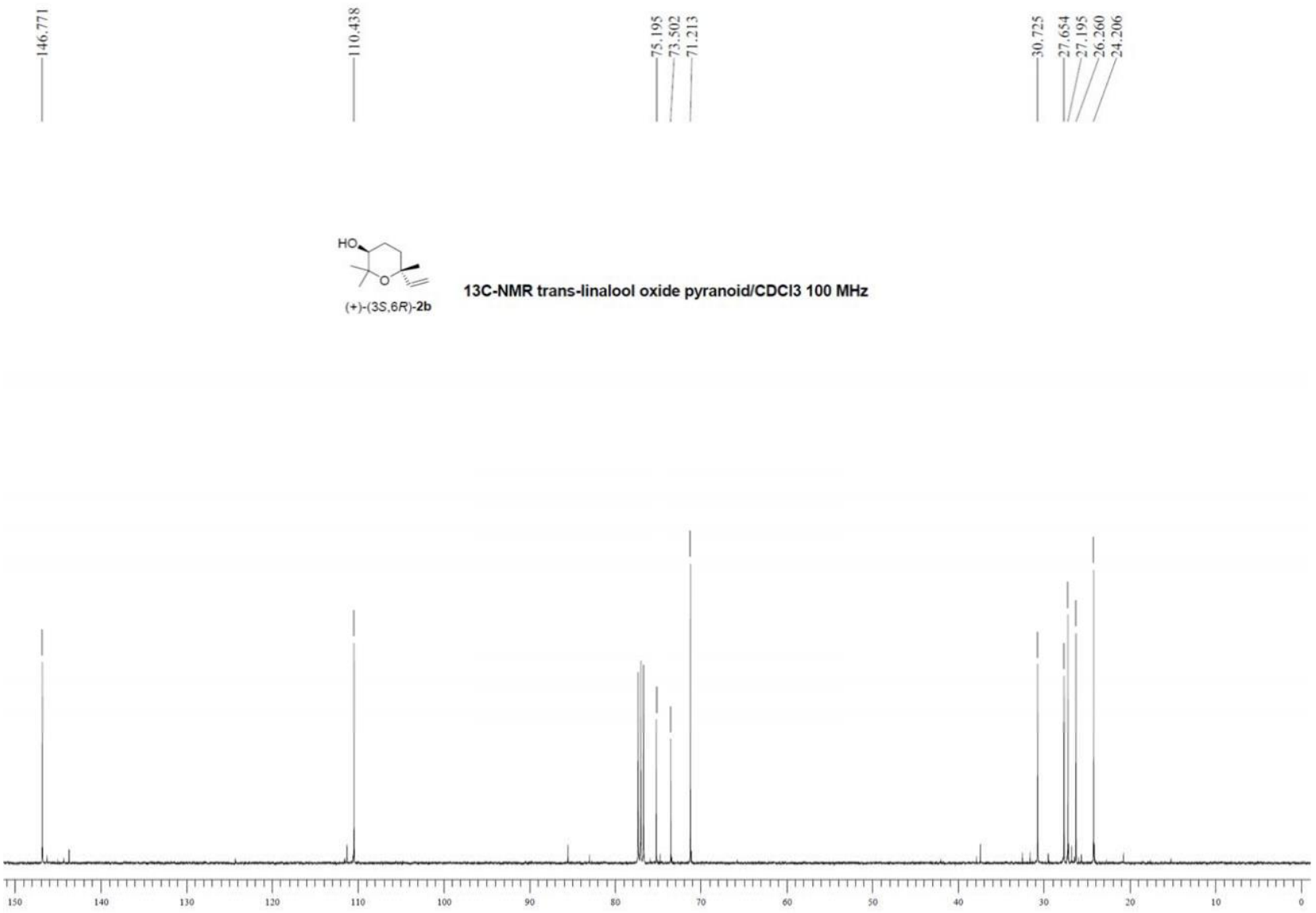

Figure S5. ^{13}C-NMR of the *trans* linalool oxide (pyranoid).

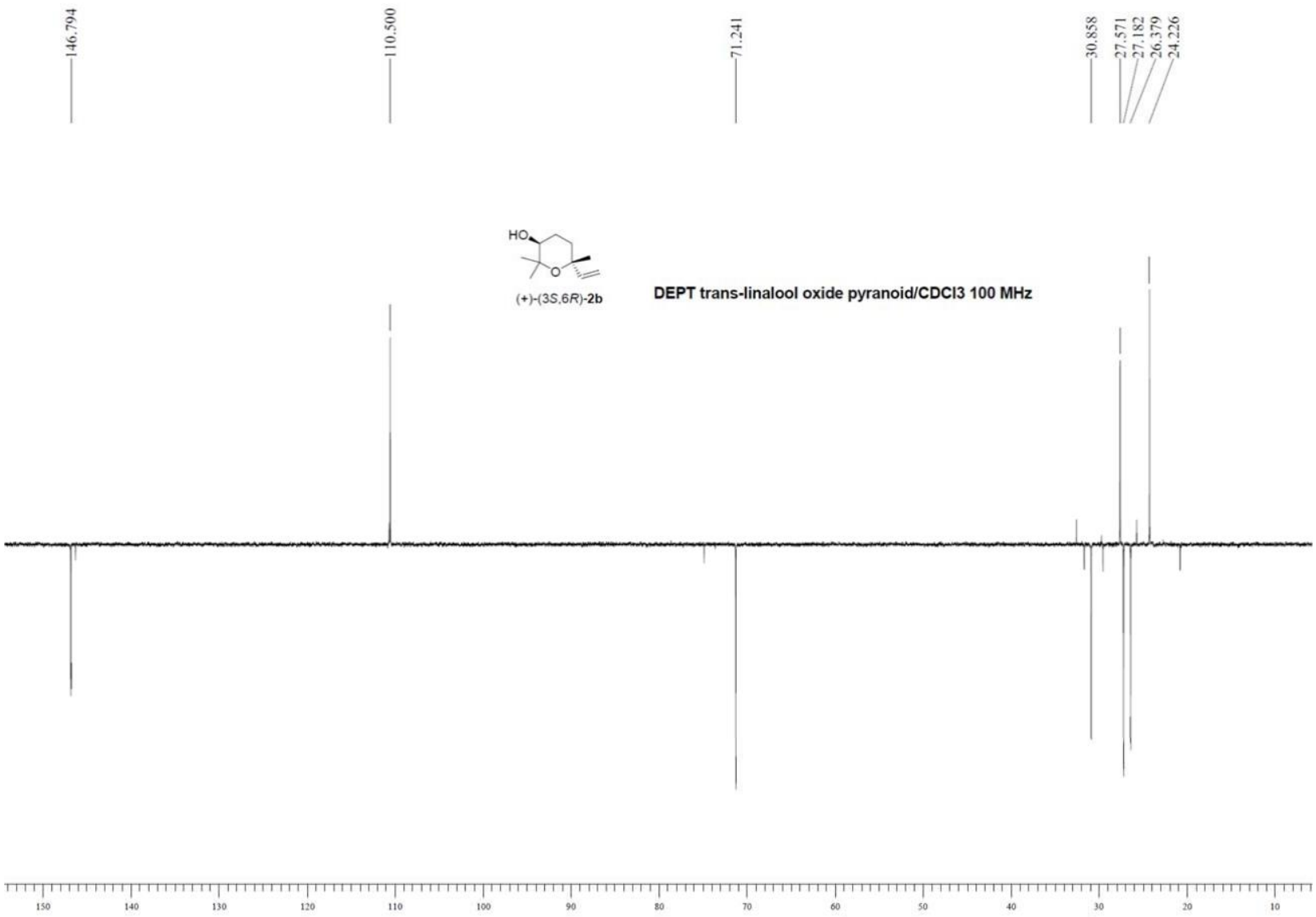

Figure S6. DEPT experiment of the *trans* linalool oxide (pyranoid).

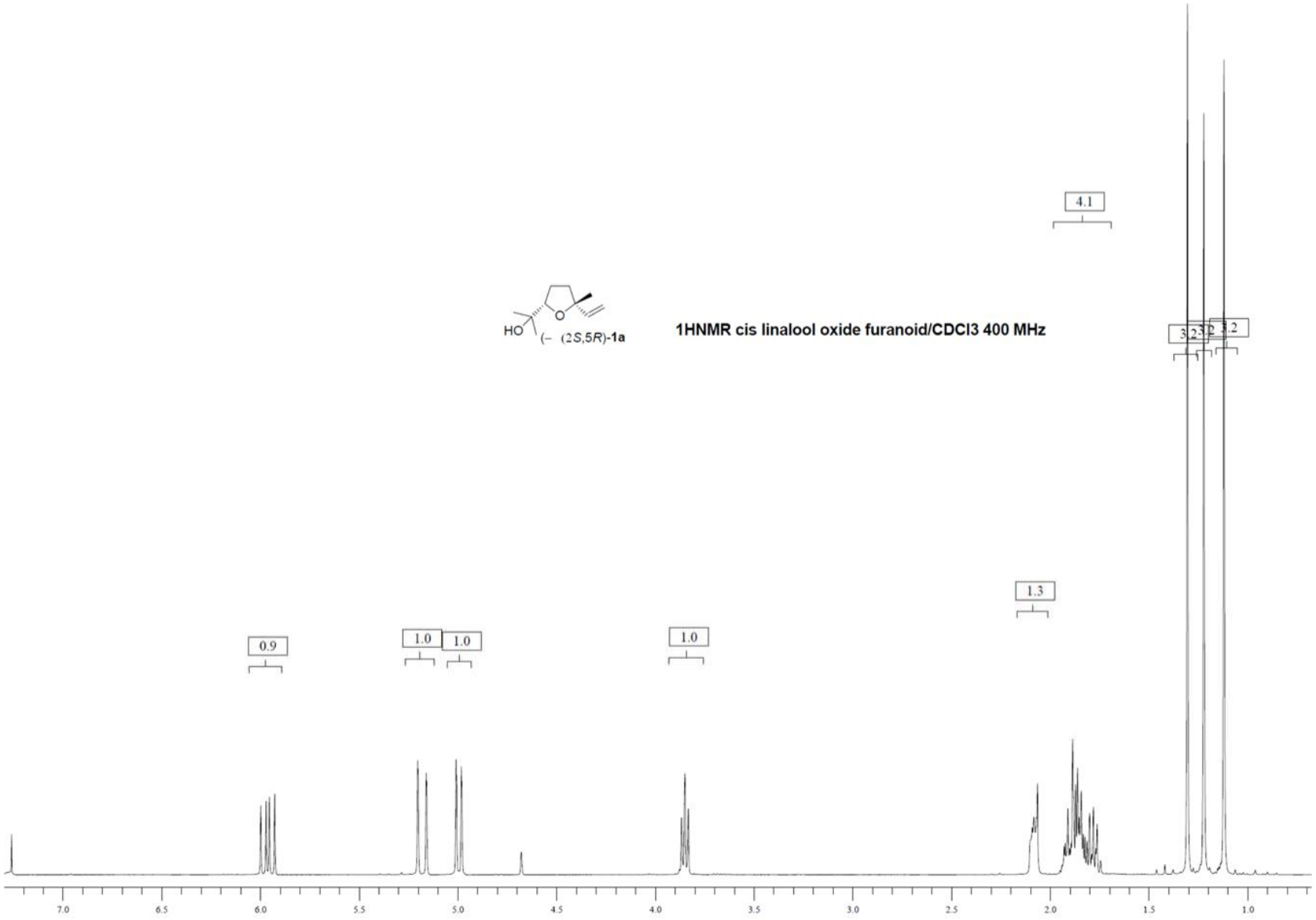

Figure S7. [1]H-NMR of the *cis* linalool oxide (furanoid).

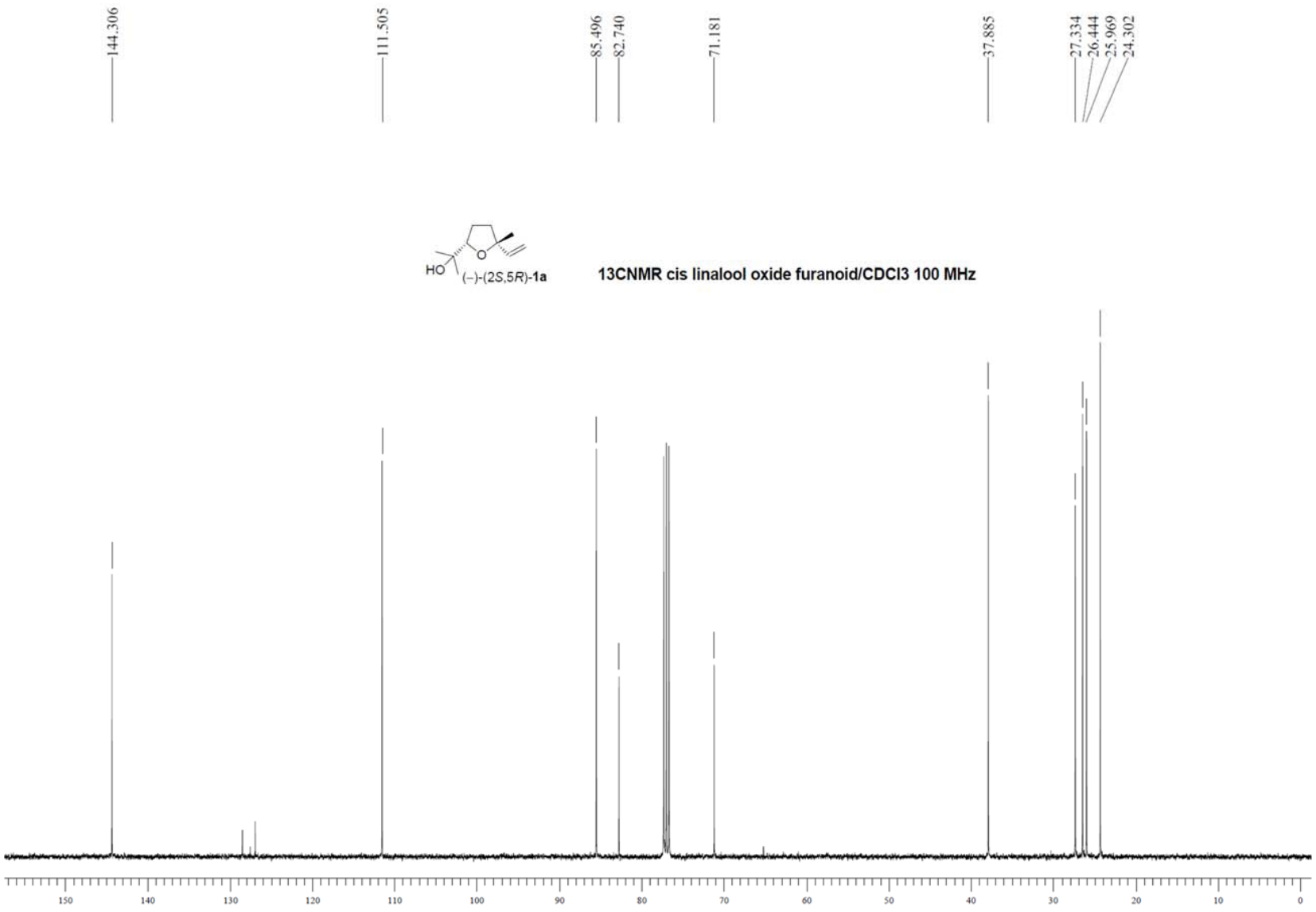

Figure S8. ^{13}C-NMR of the *cis* linalool oxide (furanoid).

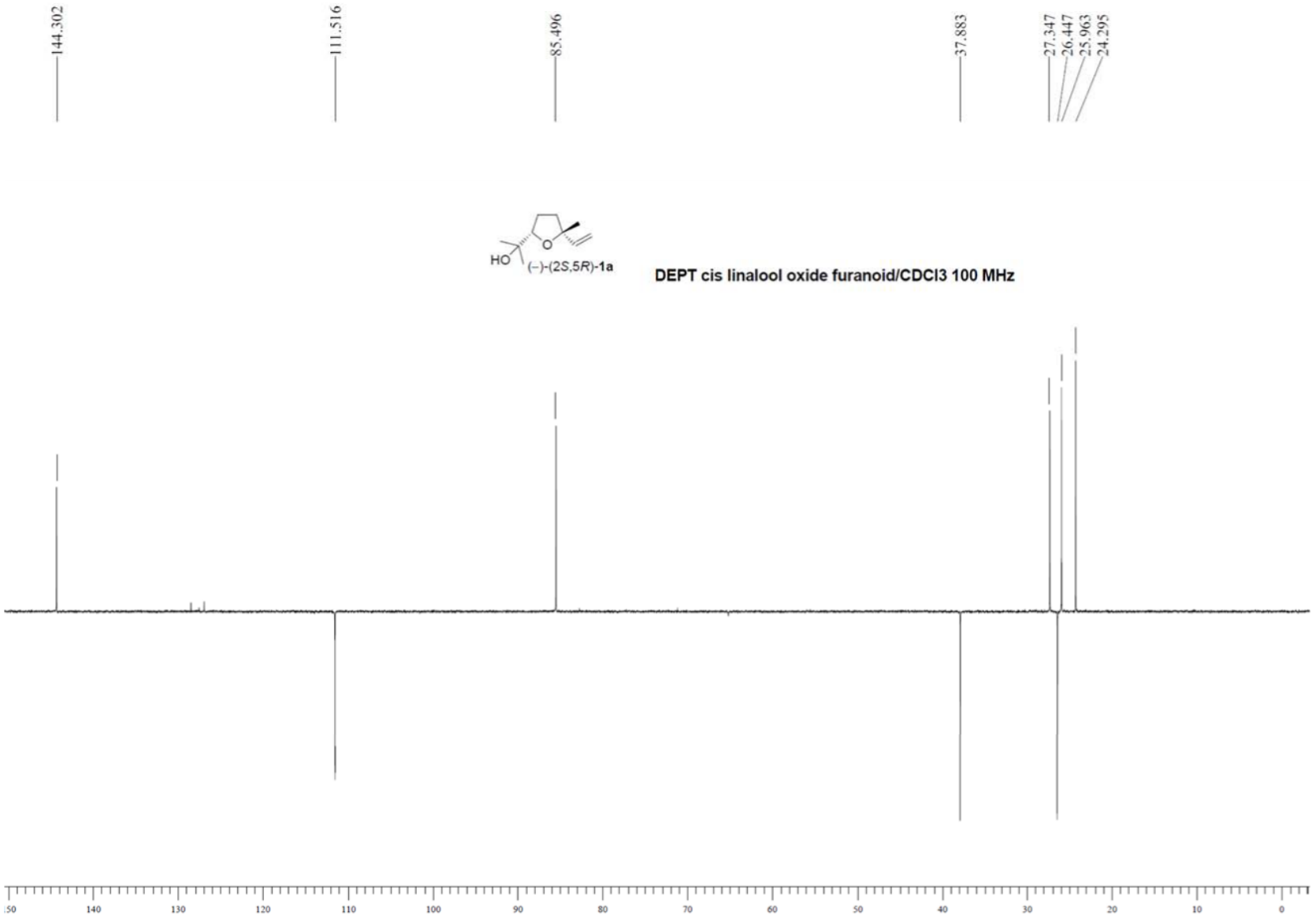

Figure S9. DEPT experiment of the *cis* linalool oxide (furanoid)Figure S10: ^{1}H-NMR of the *trans* linalool oxide (furanoid).

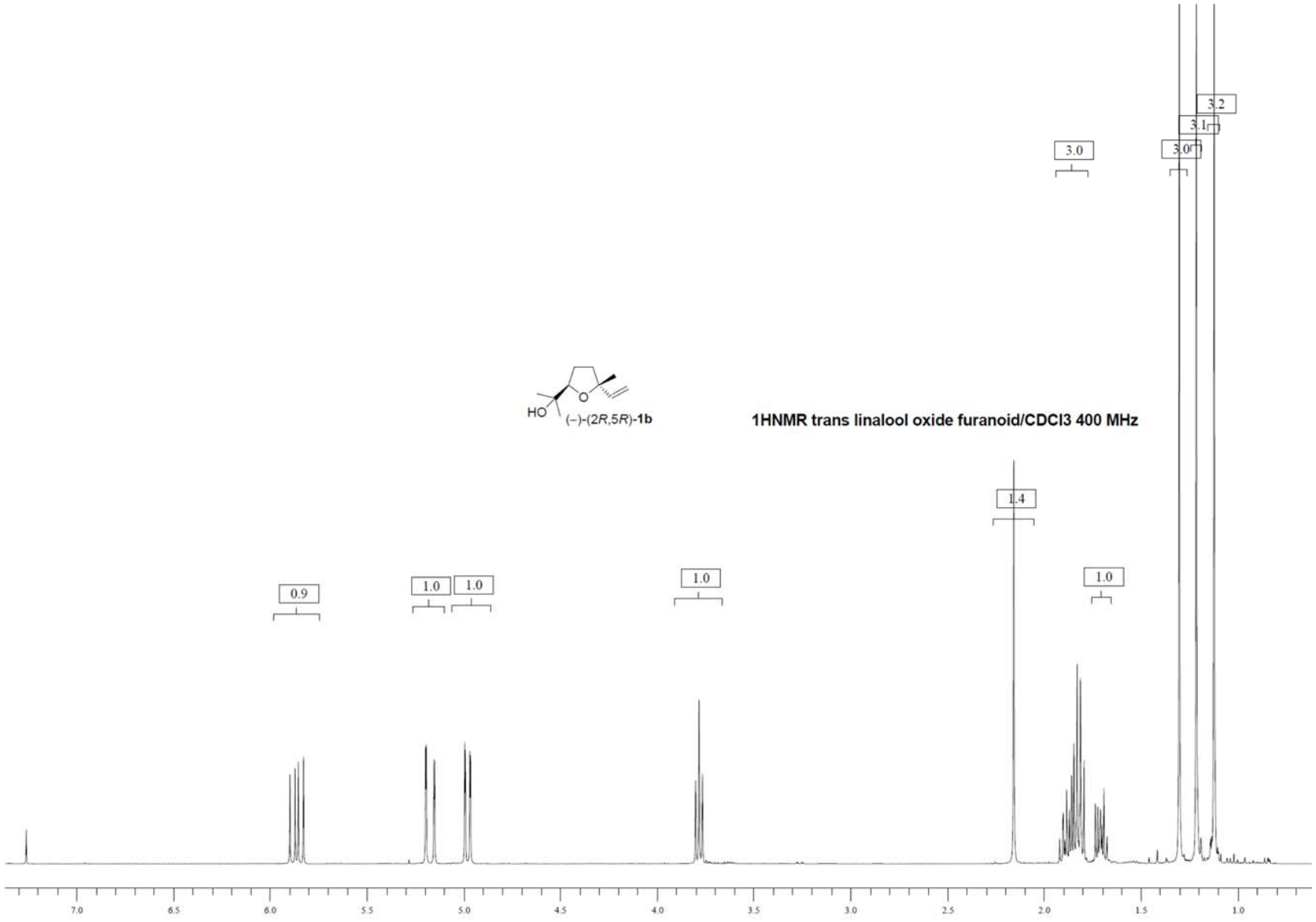

Figure S10. [1]H-NMR of the trans linalool oxide (furanoid)

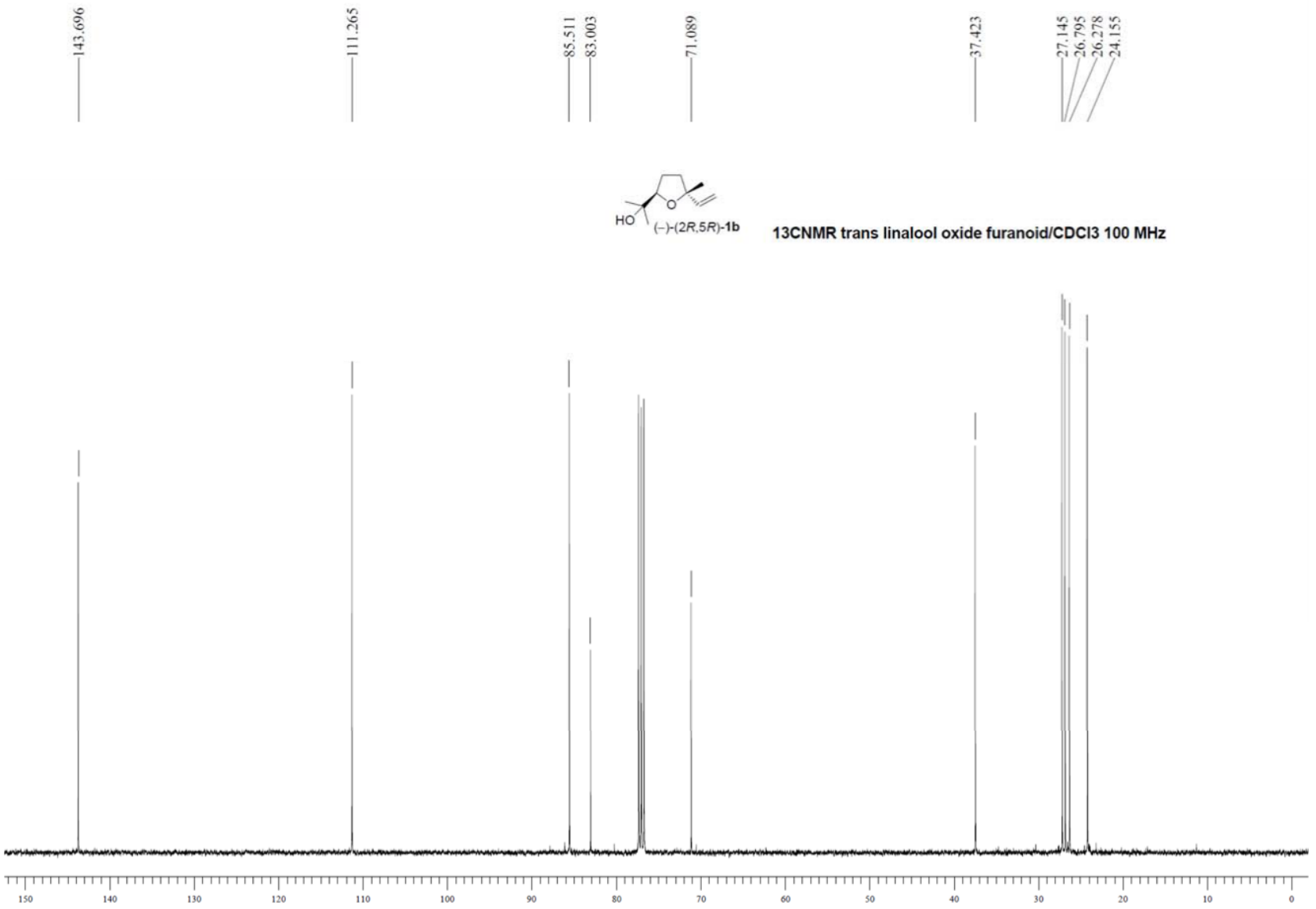

Figure S11. ^{13}C-NMR of the *trans* linalool oxide (furanoid).

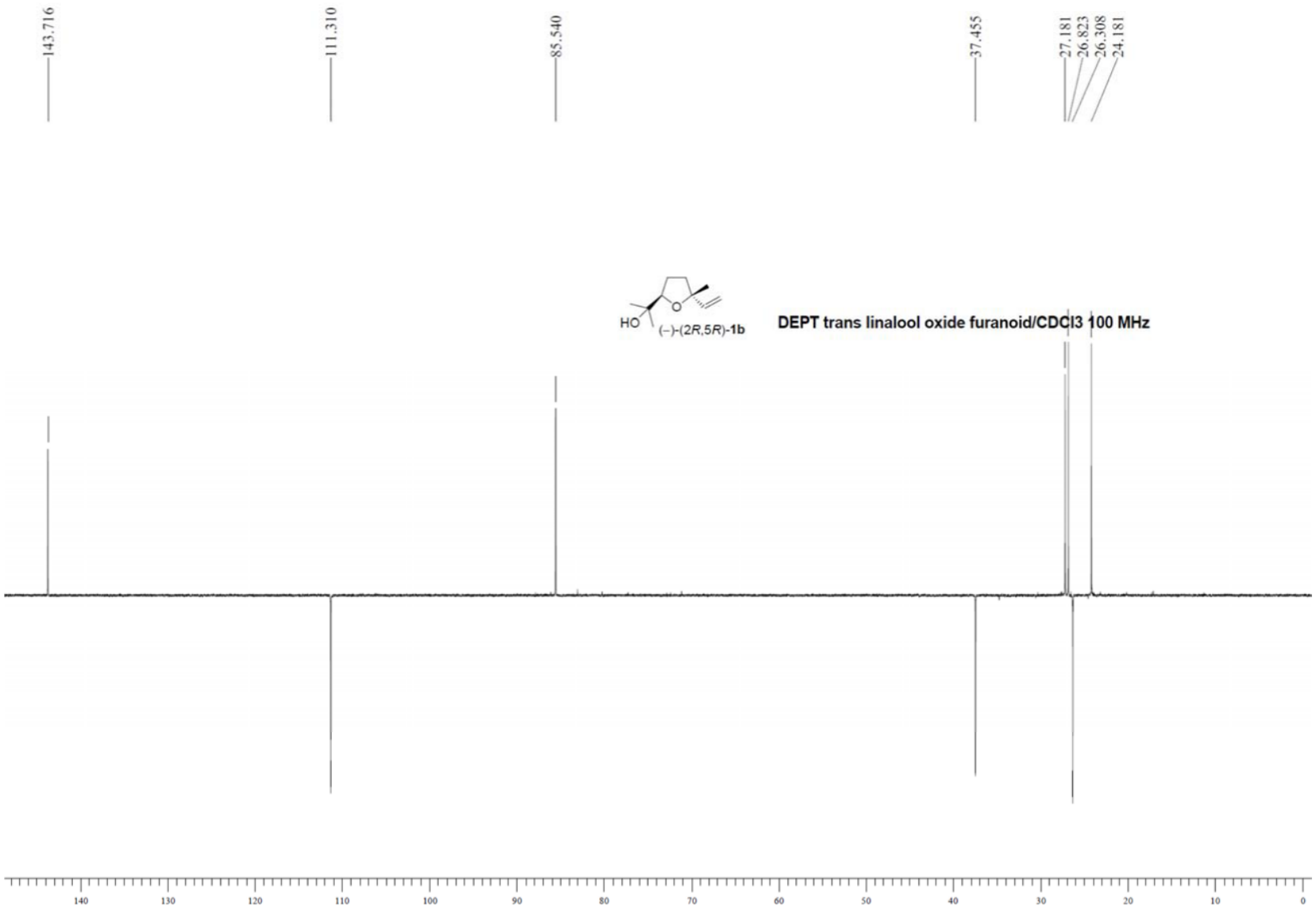

Figure S12. DEPT experiment of the *trans* linalool oxide (furanoid).

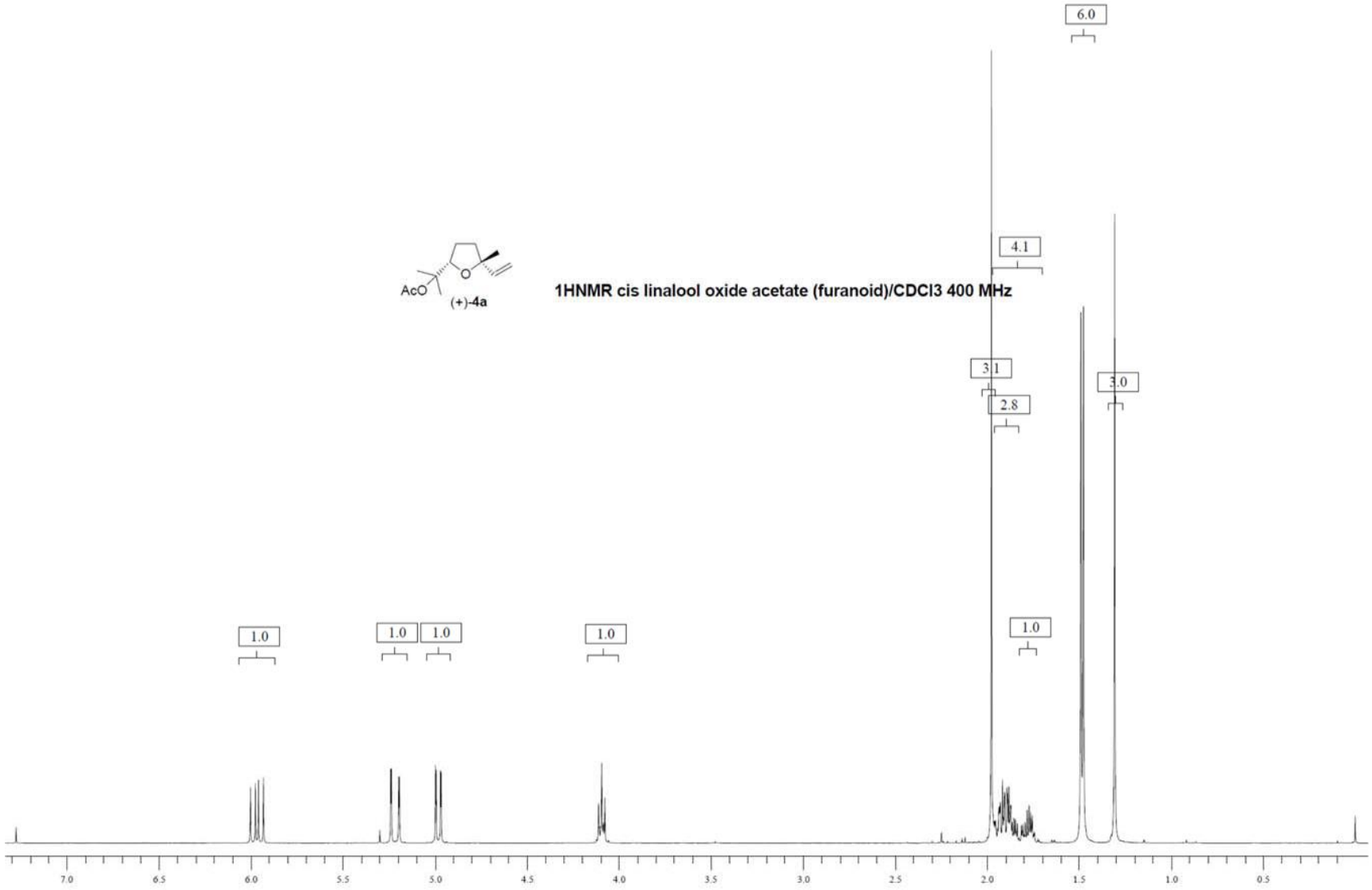

Figure S13. [1]H-NMR of the *cis* linalool oxide acetate (furanoid).

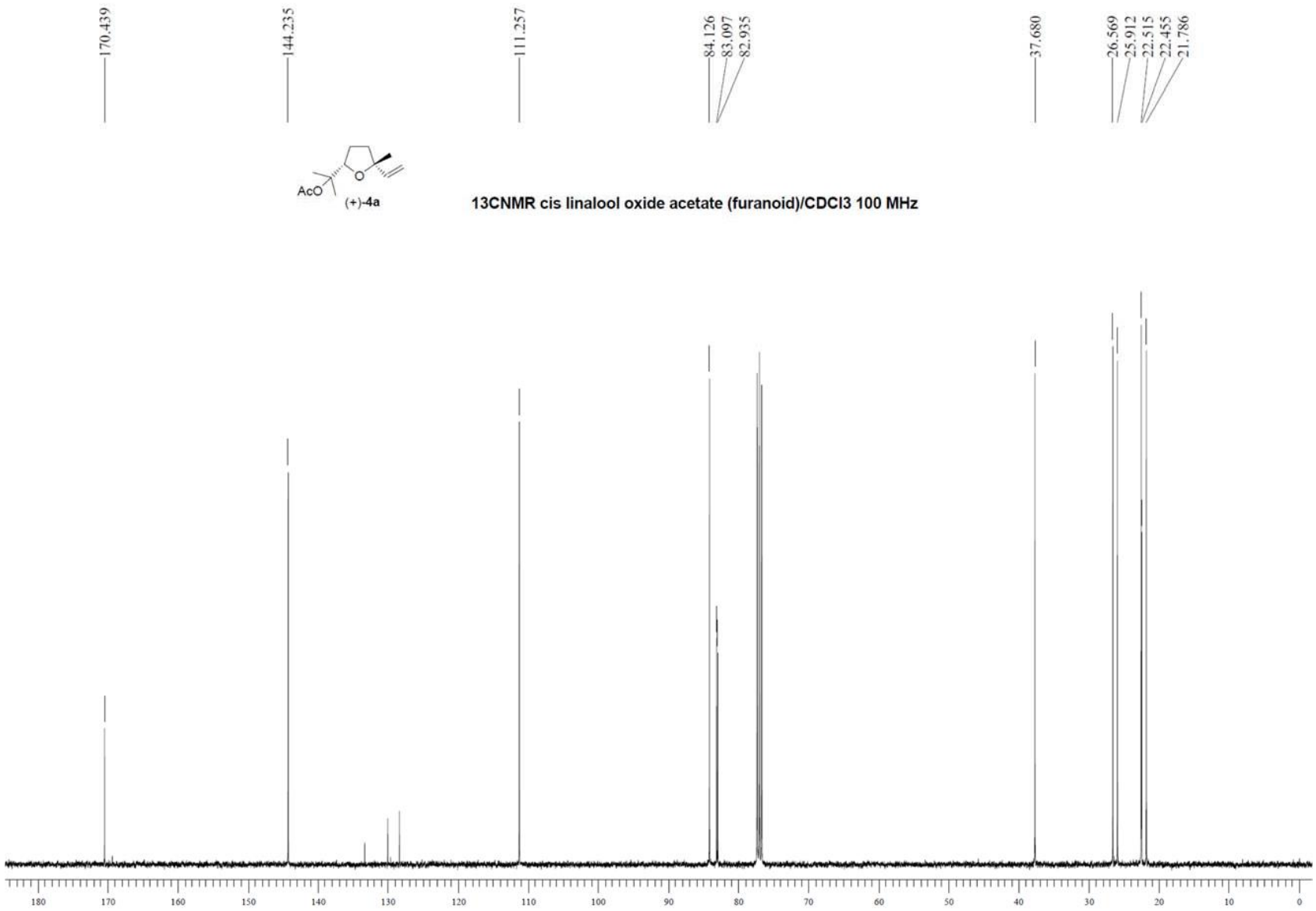

Figure S14. ^{13}C-NMR of the *cis* linalool oxide acetate (furanoid).

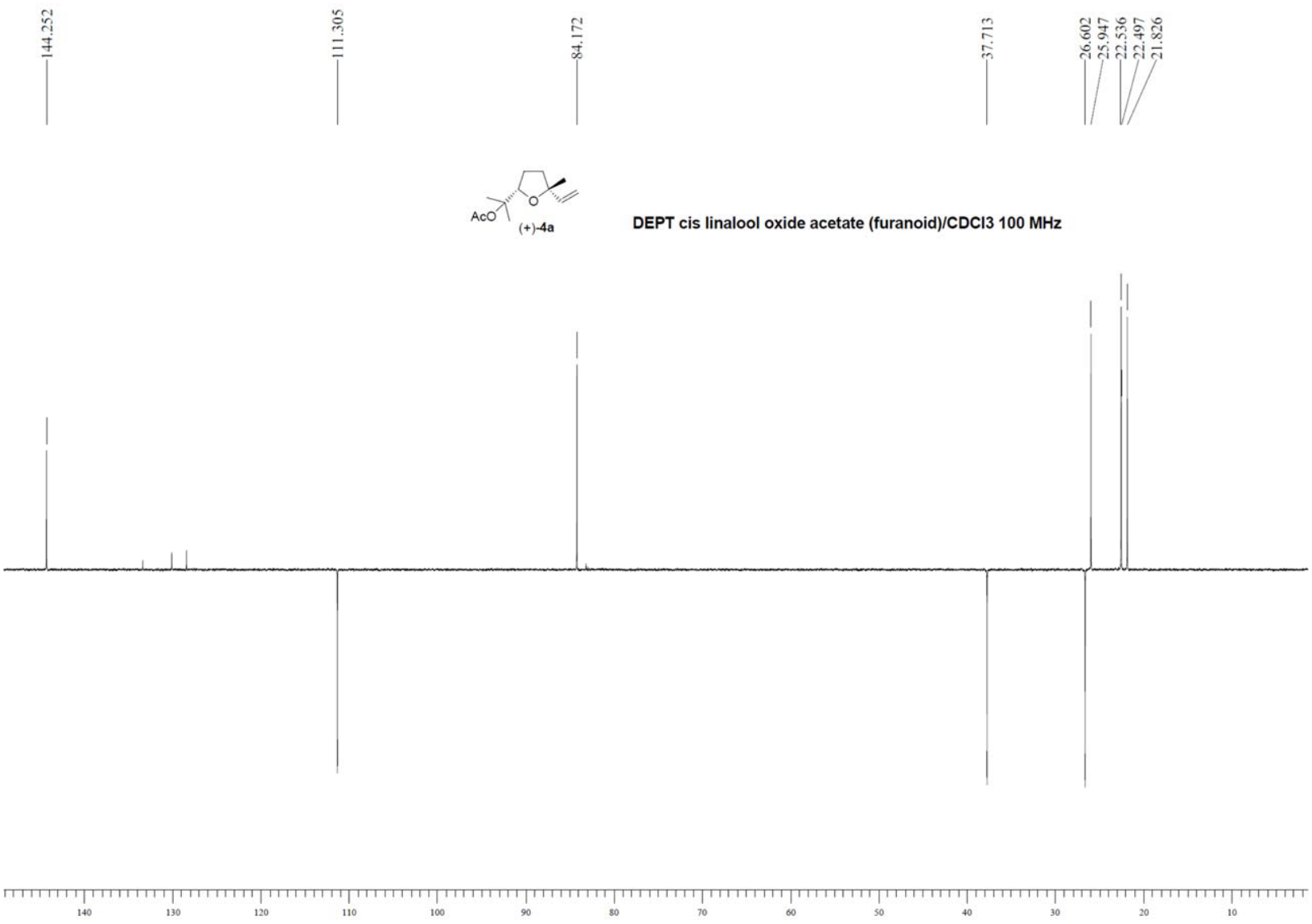

Figure S15. DEPT experiment of the *cis* linalool oxide acetate (furanoid).

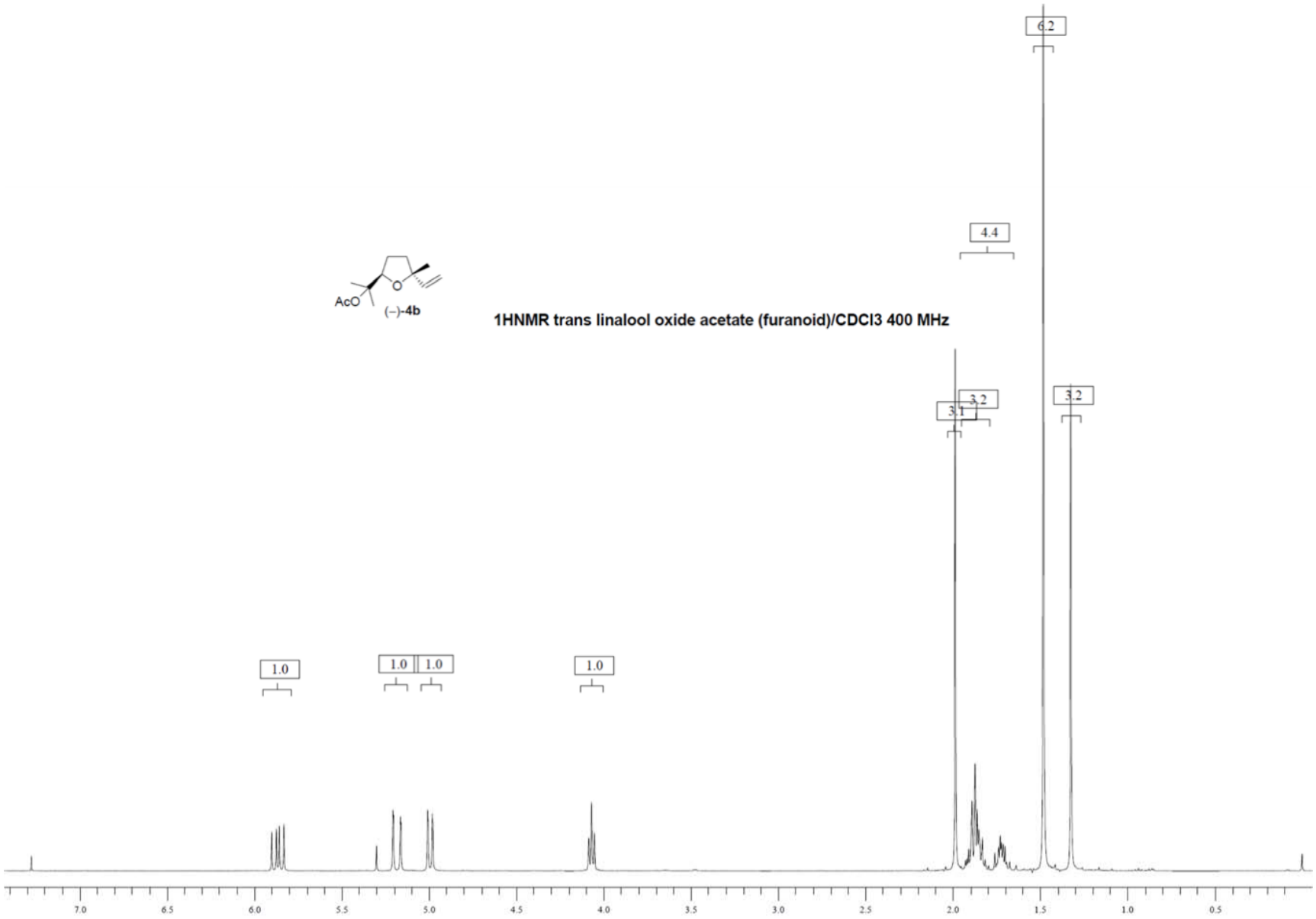

Figure S16. [1]H-NMR of the *trans* linalool oxide acetate (furanoid).

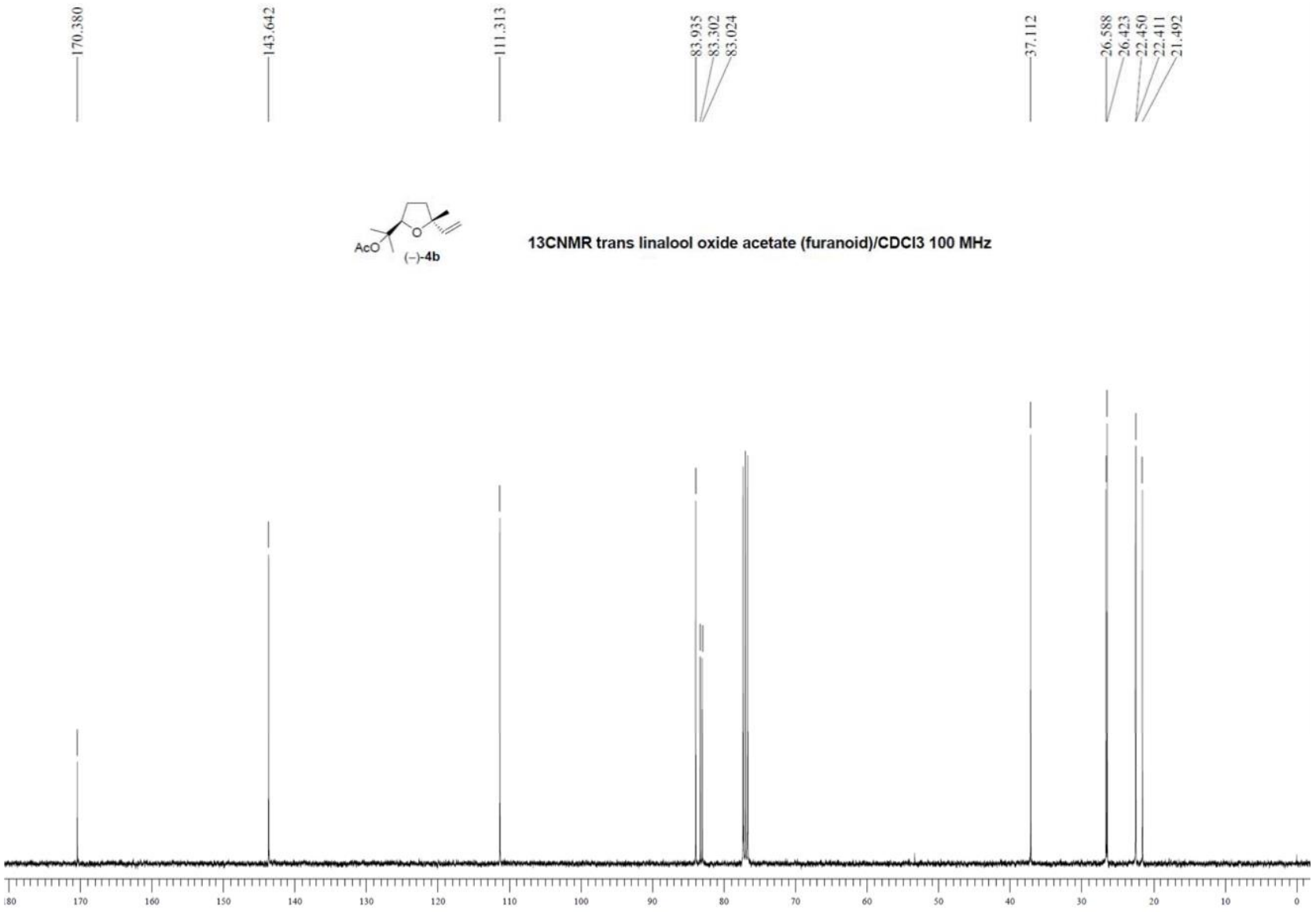

Figure S17. ^{13}C-NMR of the *trans* linalool oxide acetate (furanoid).

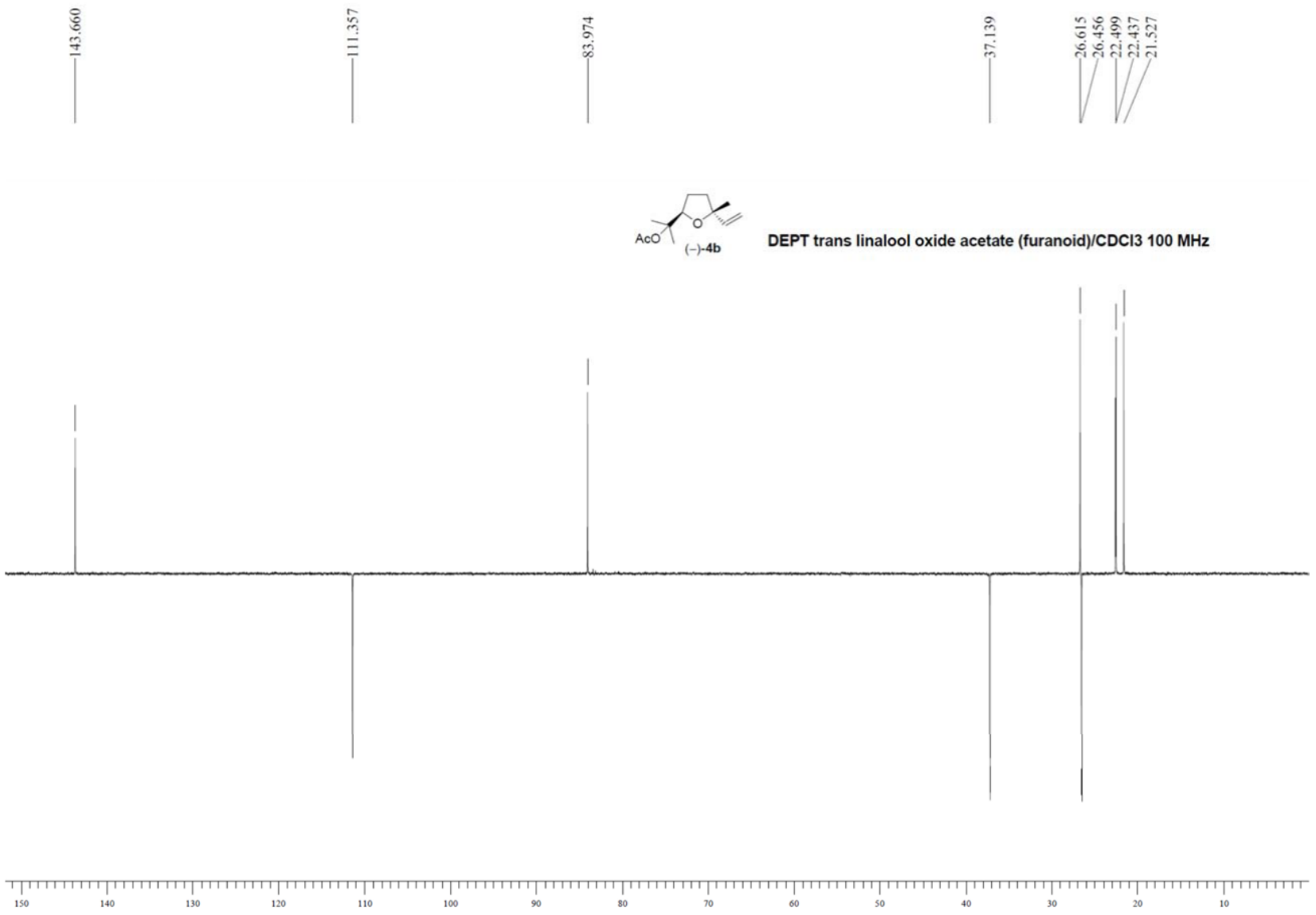

Figure S18. DEPT experiment of the *trans* linalool oxide acetate (furanoid).