

New Antiproliferative Polyunsaturated Epoxy-Heneicosane Derivatives Isolated from the Brown Alga *Lobophora variegata*

Fábio N. Ávila,^a Francisco C. L. Pinto,^a Pedro B. M. Carneiro, ^b Kayanny Q. Ferreira,^c Diego V. Wilke,^c Nádia A. P. Nogueira,^d Edilberto R. Silveira ^a and Otília Deusdênia L. Pessoa^{*a}

^aDepartamento de Química Orgânica e Inorgânica, Universidade Federal do Ceará, 60021-970, Fortaleza-CE, Brazil

^bCampus Ministro Reis Velloso, Universidade Federal do Piauí, 64202-020 Parnaíba-PI, Brazil

^cDepartamento de Fisiologia e Farmacologia, Universidade Federal do Ceará, 60430-275 Fortaleza-CE, Brazil

^dDepartamento de Análises Clínicas e Toxicológicas, Universidade Federal do Ceará, 60430-370, Fortaleza-CE, Brazil

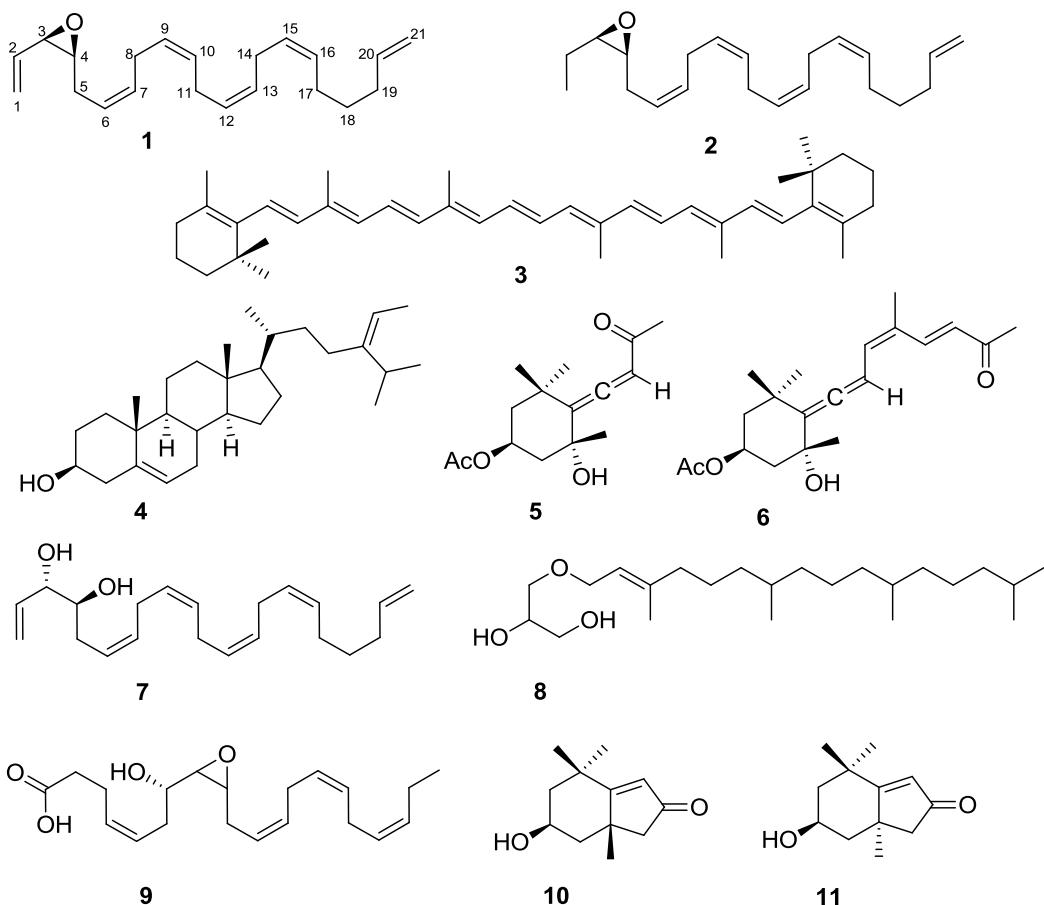


Figure S1. Structure of all compounds isolated from *L. variegata*.

*e-mail: otiliailoiola@gmail.com

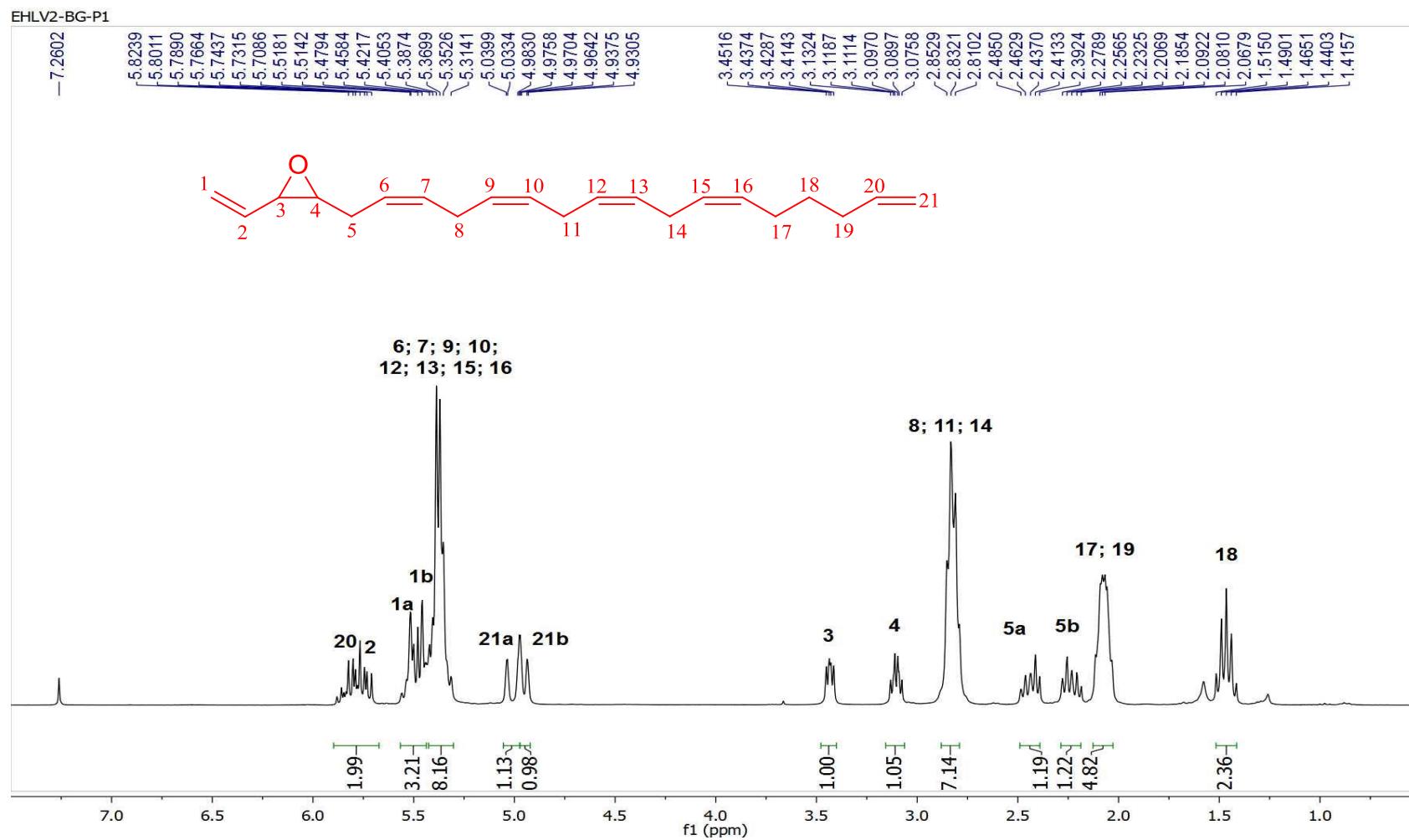


Figure S2. ^1H NMR (500 MHz, CDCl_3) spectrum of 3,4-epoxy-lobophorene A.

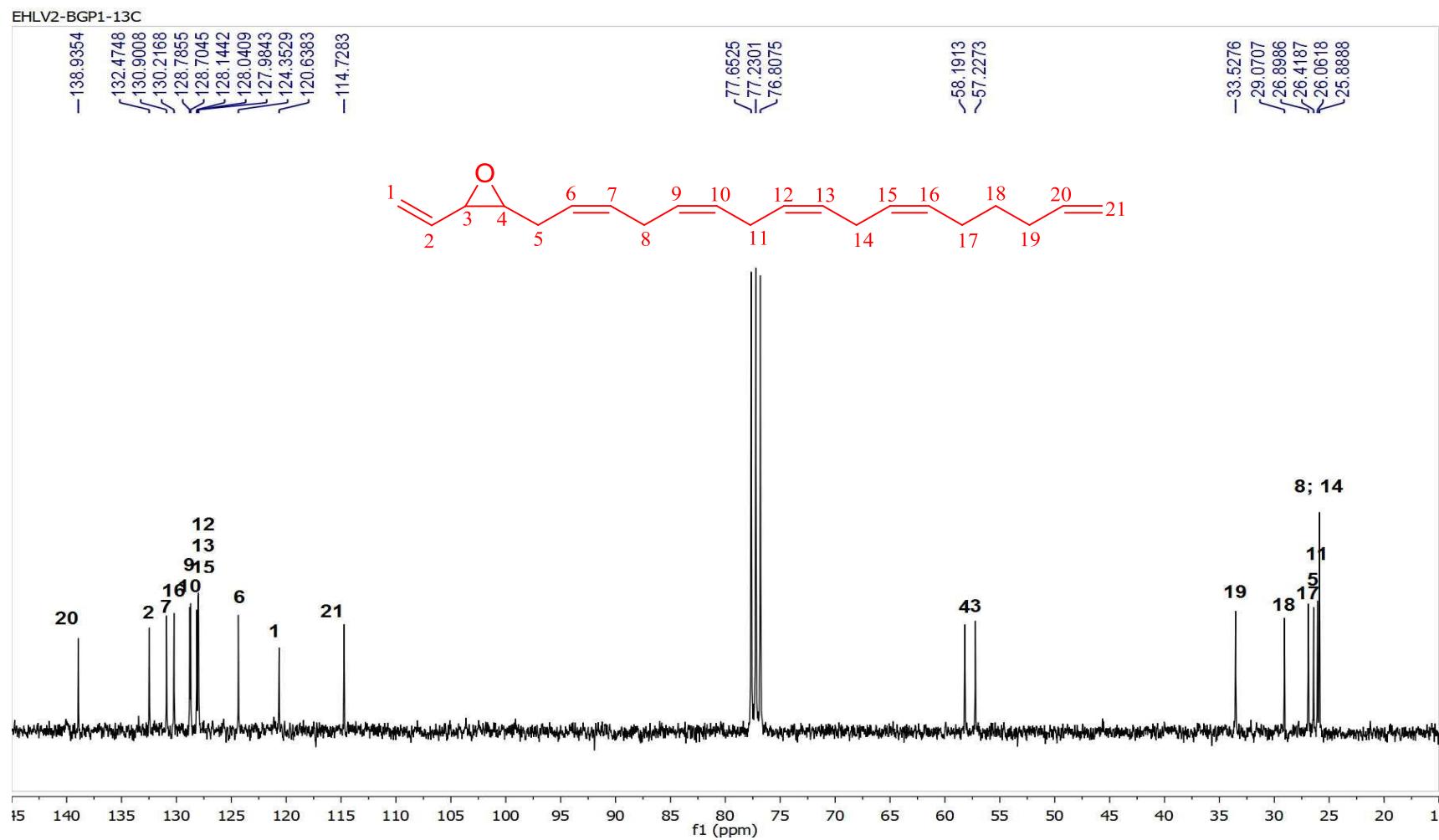


Figure S3. ^{13}C NMR (125 MHz, CDCl_3) spectrum of 3,4-epoxy-lobophorene A.

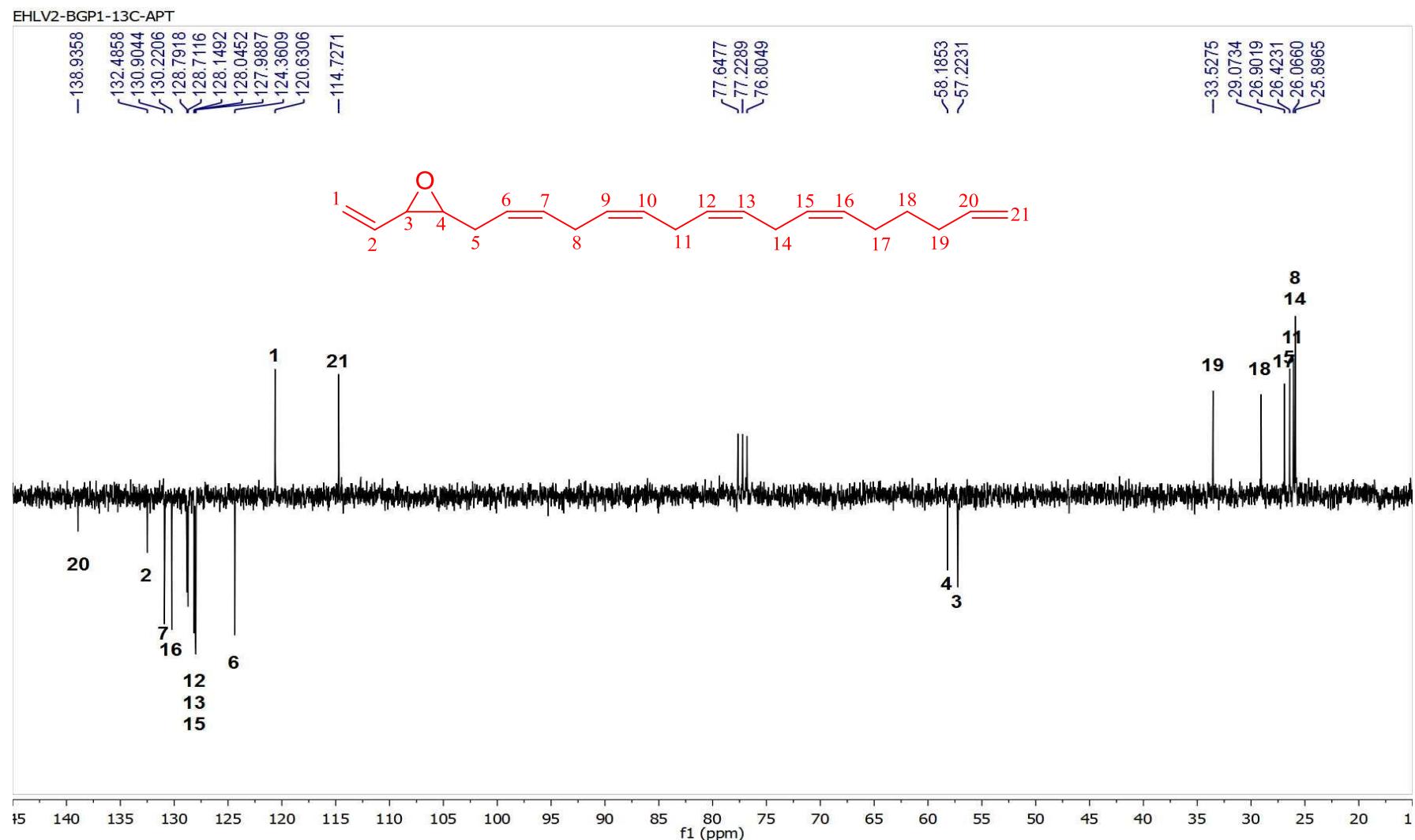


Figure S4. APT NMR (125 MHz, CDCl_3) spectrum of 3,4-epoxy-lobophorene A.

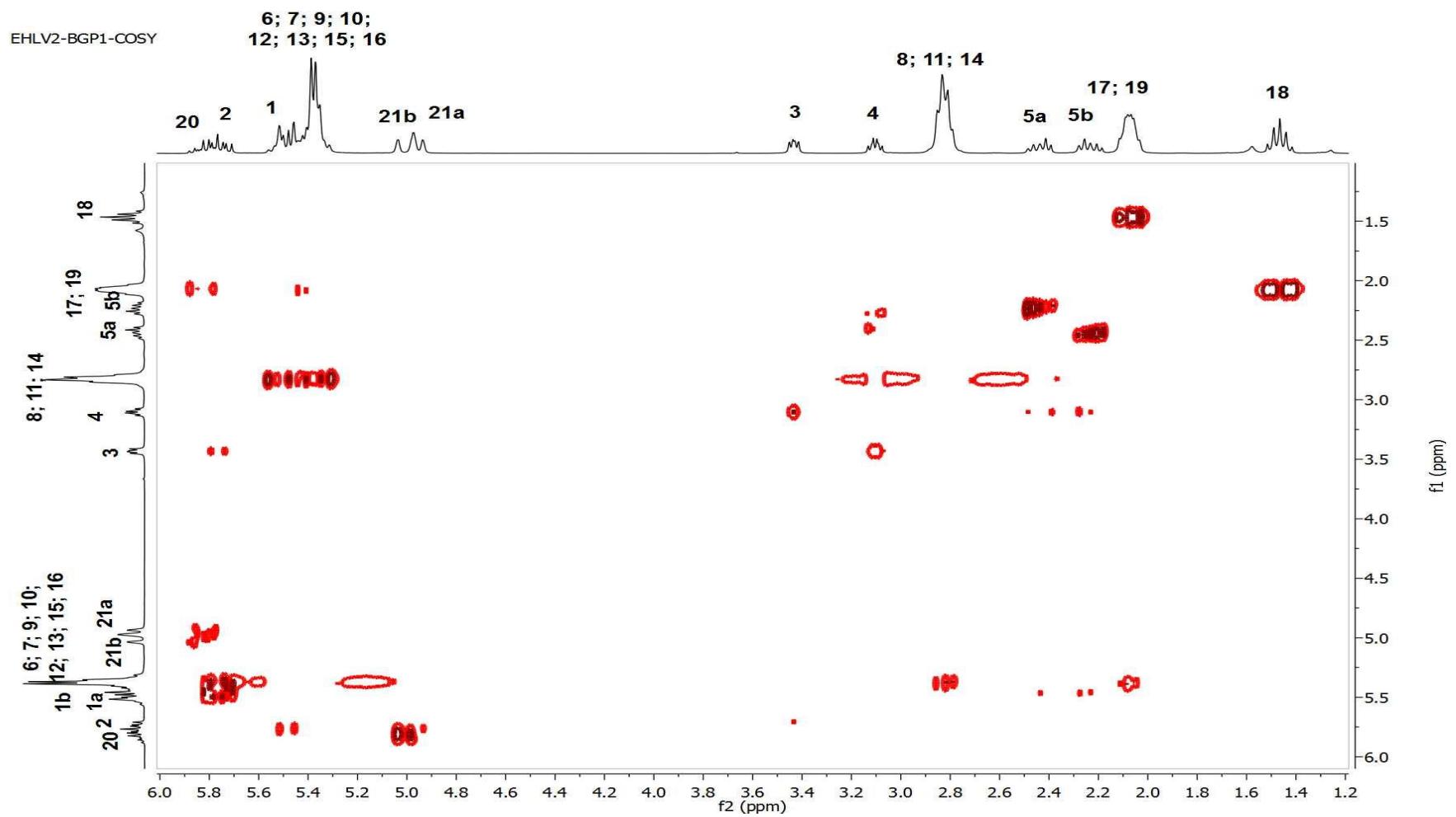


Figure S5. ^1H , ^1H -COSY NMR (500 MHz, CDCl_3) spectrum of 3,4-epoxy-lobophorene A.

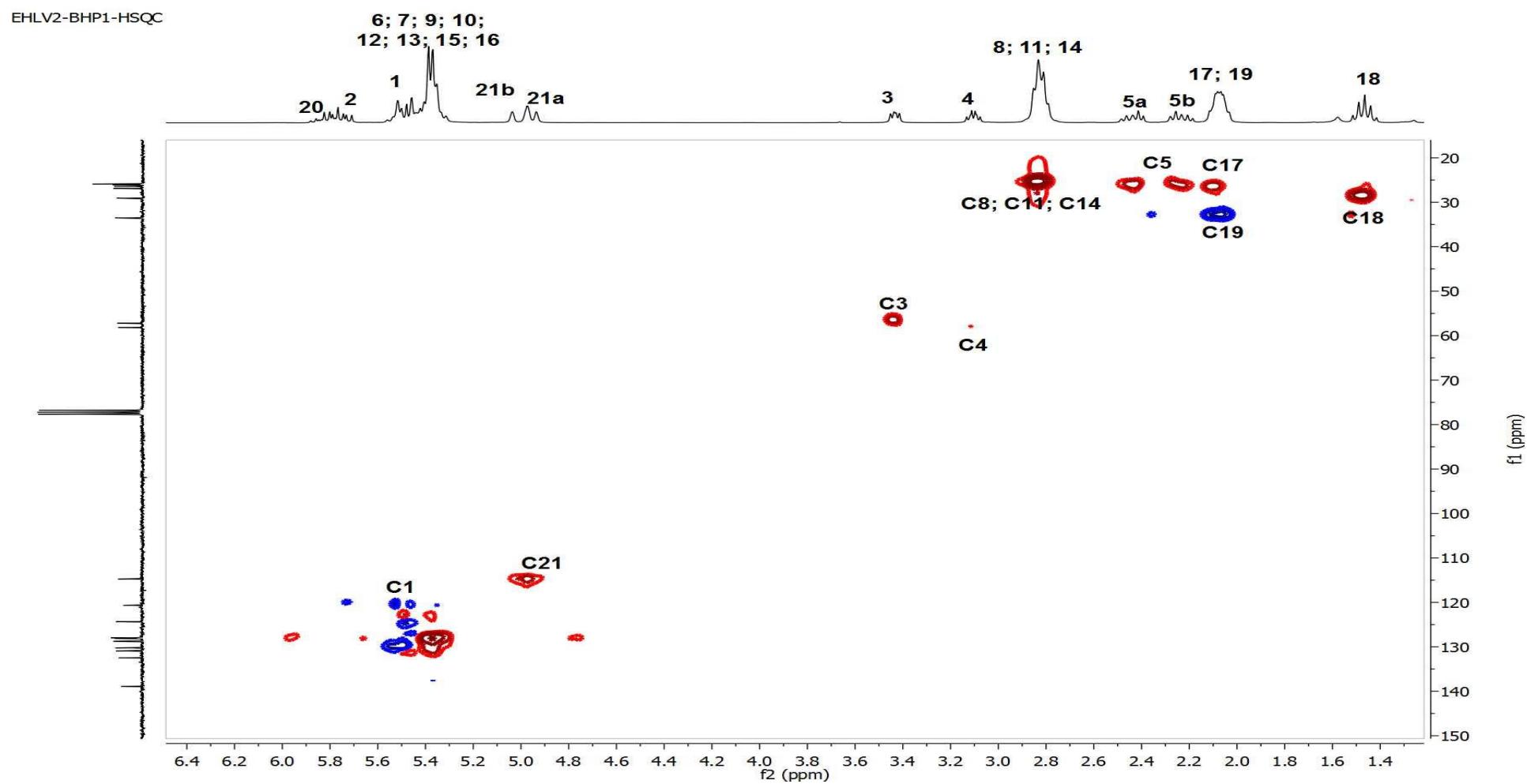
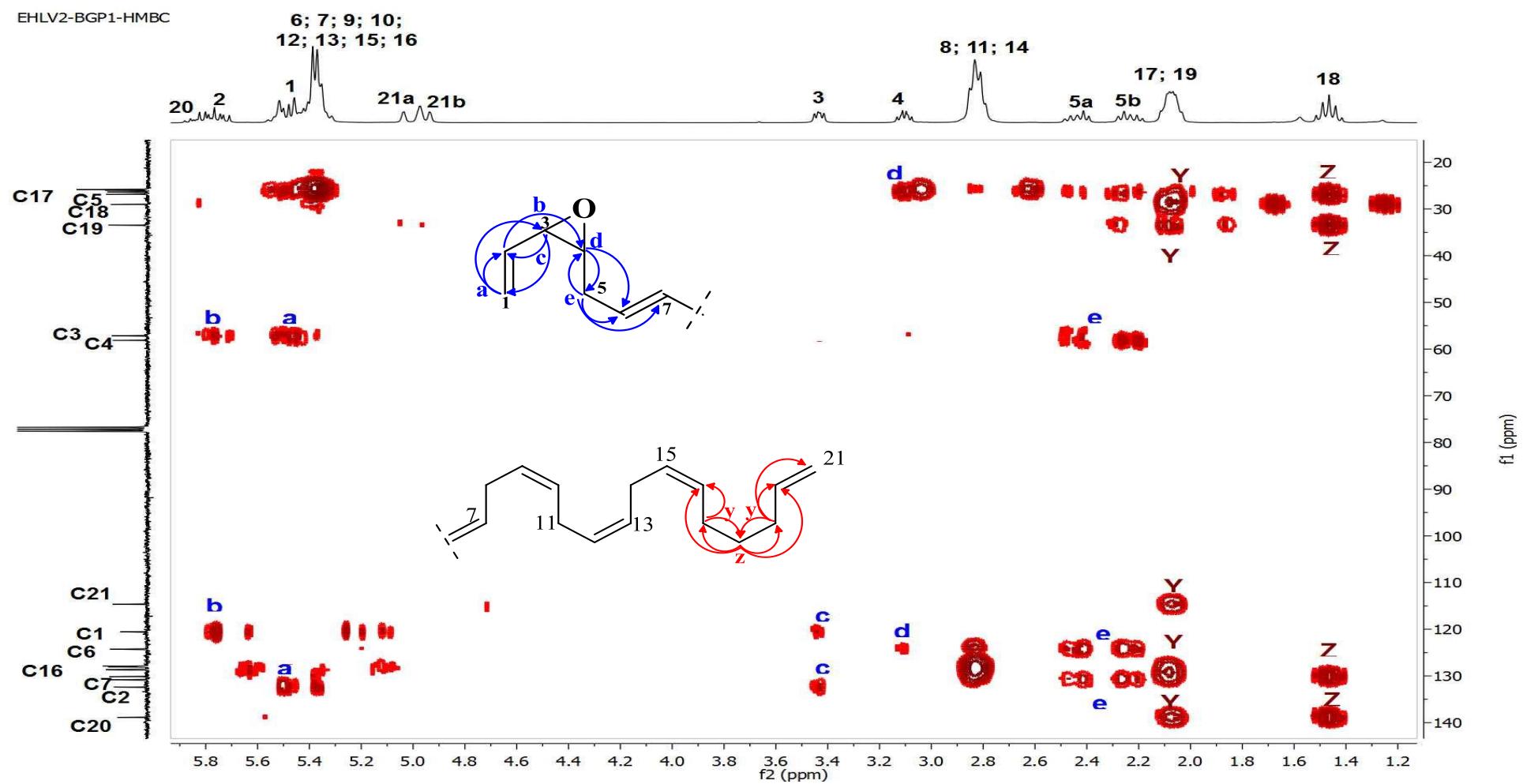


Figure S6. $^1\text{H}, ^{13}\text{C}$ -HSQC 2D NMR (500 MHz, CDCl_3) spectrum of 3,4-epoxy-lobophorene A.



Amostra BG-P2 modo APCI+

BG-P2-APCI+ 79 (1.324)

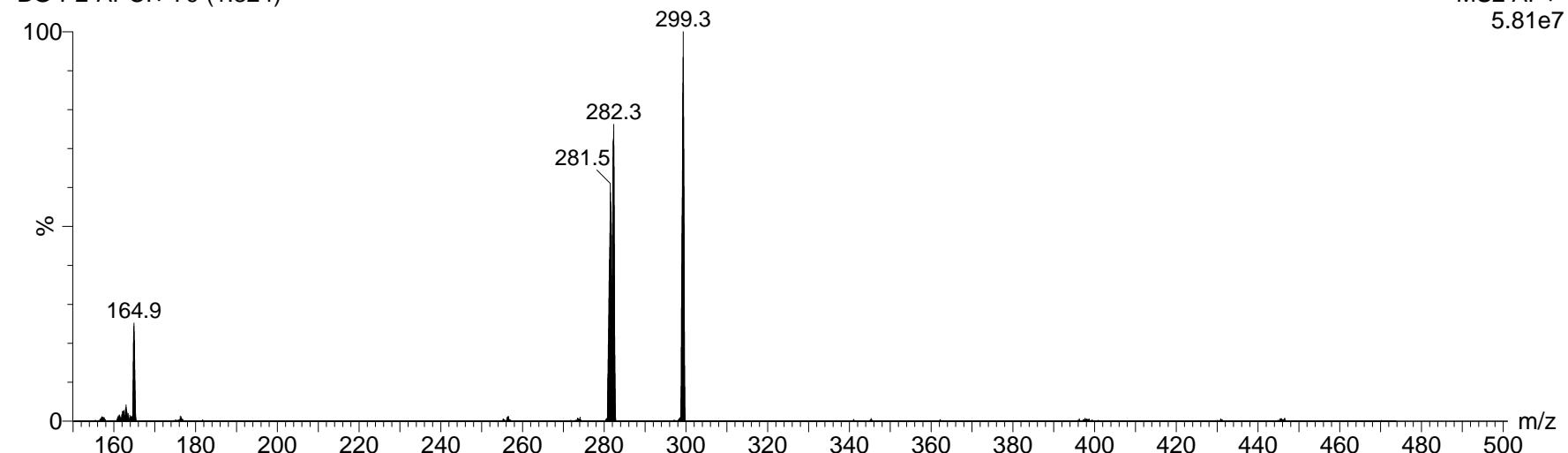


Figure S8. APCI-MS spectrum of 3,4-epoxy-lobophorene A.

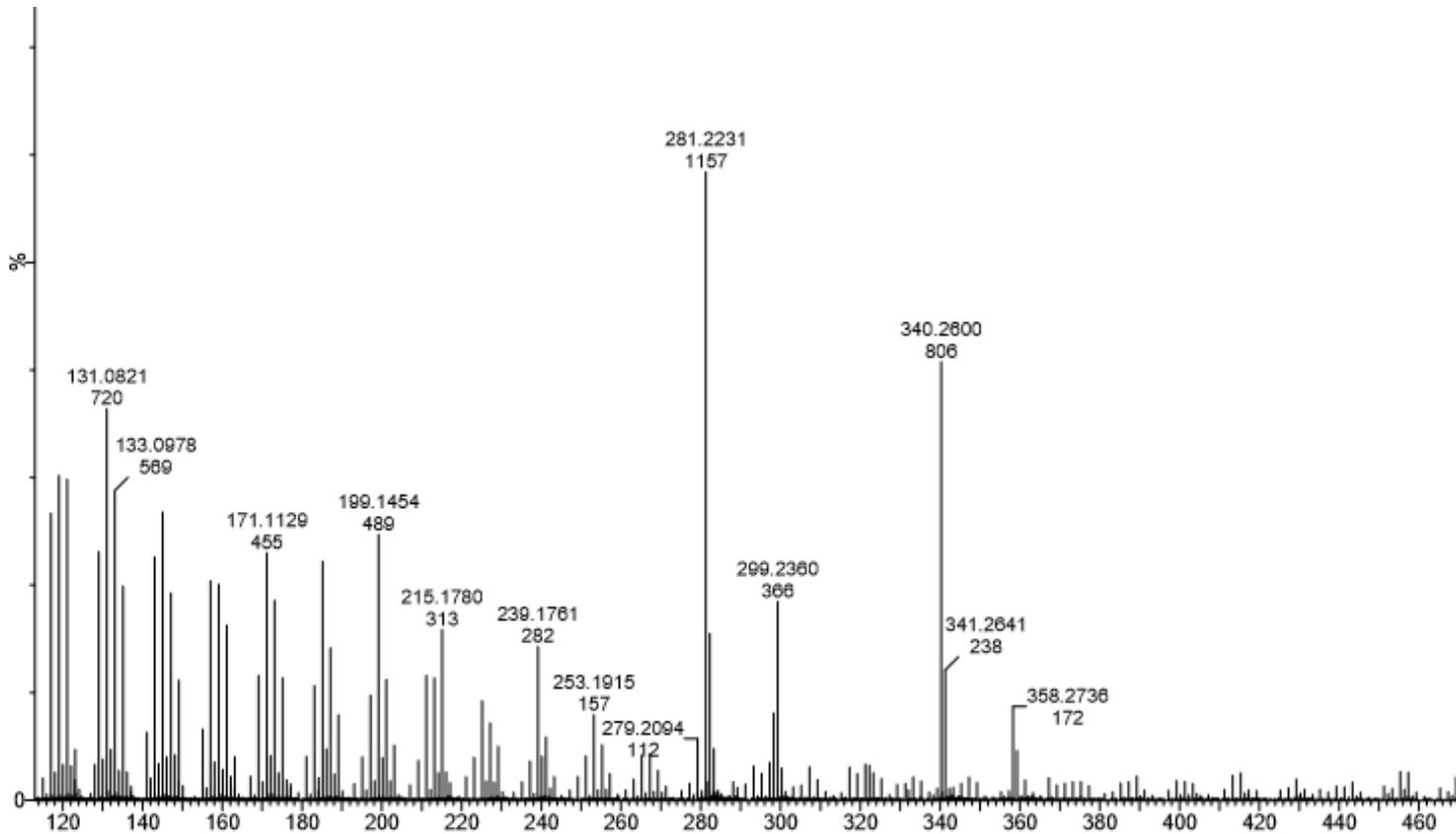


Figure S9. HRESIMS spectrum of 3,4-epoxy-lobophorene A (positive mode).

LV-04

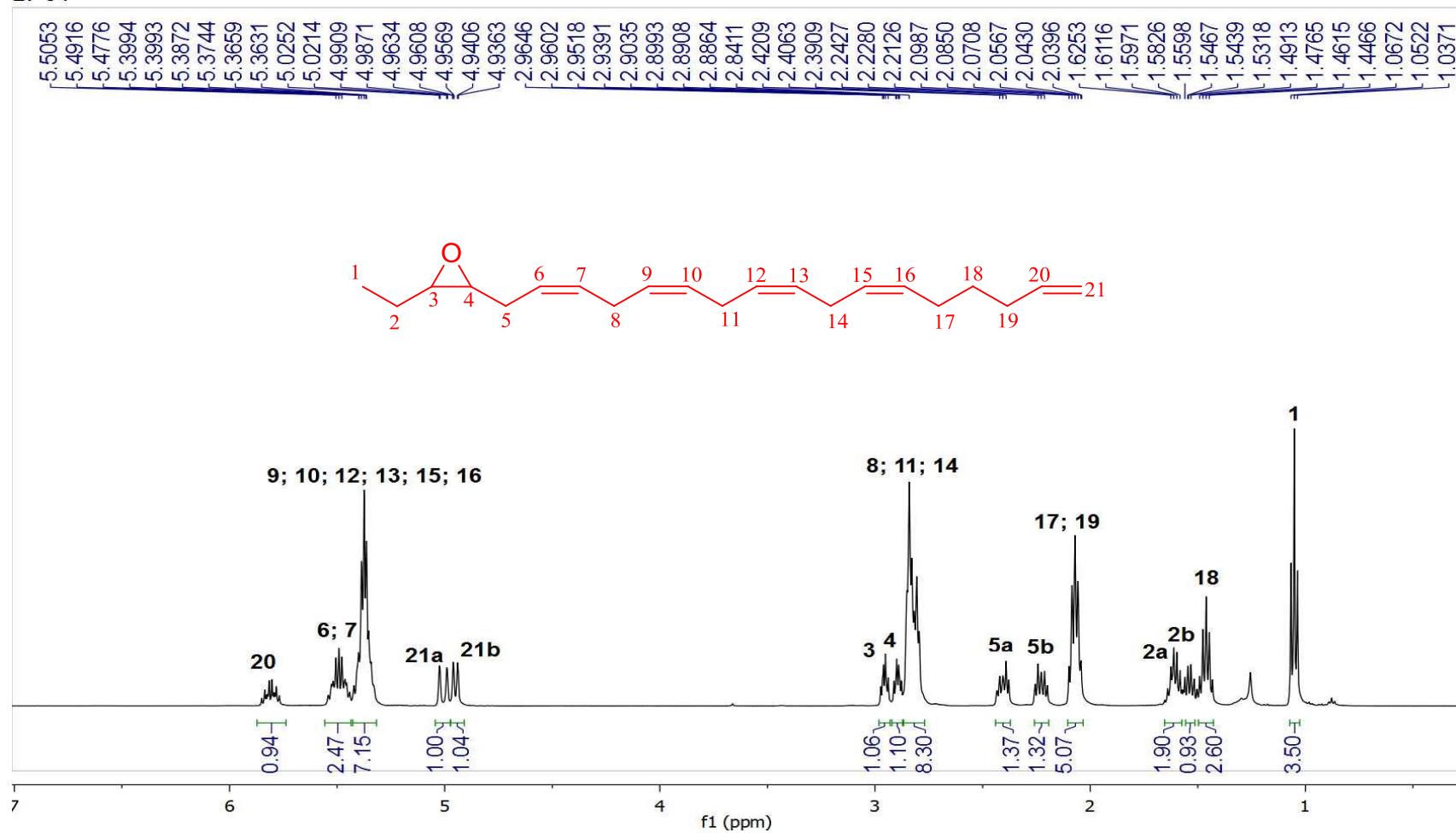


Figure S10. ^1H NMR (500 MHz, CDCl_3) spectrum of 3,4-epoxy-lobophorene B.

EHLV2-BGP2-13C

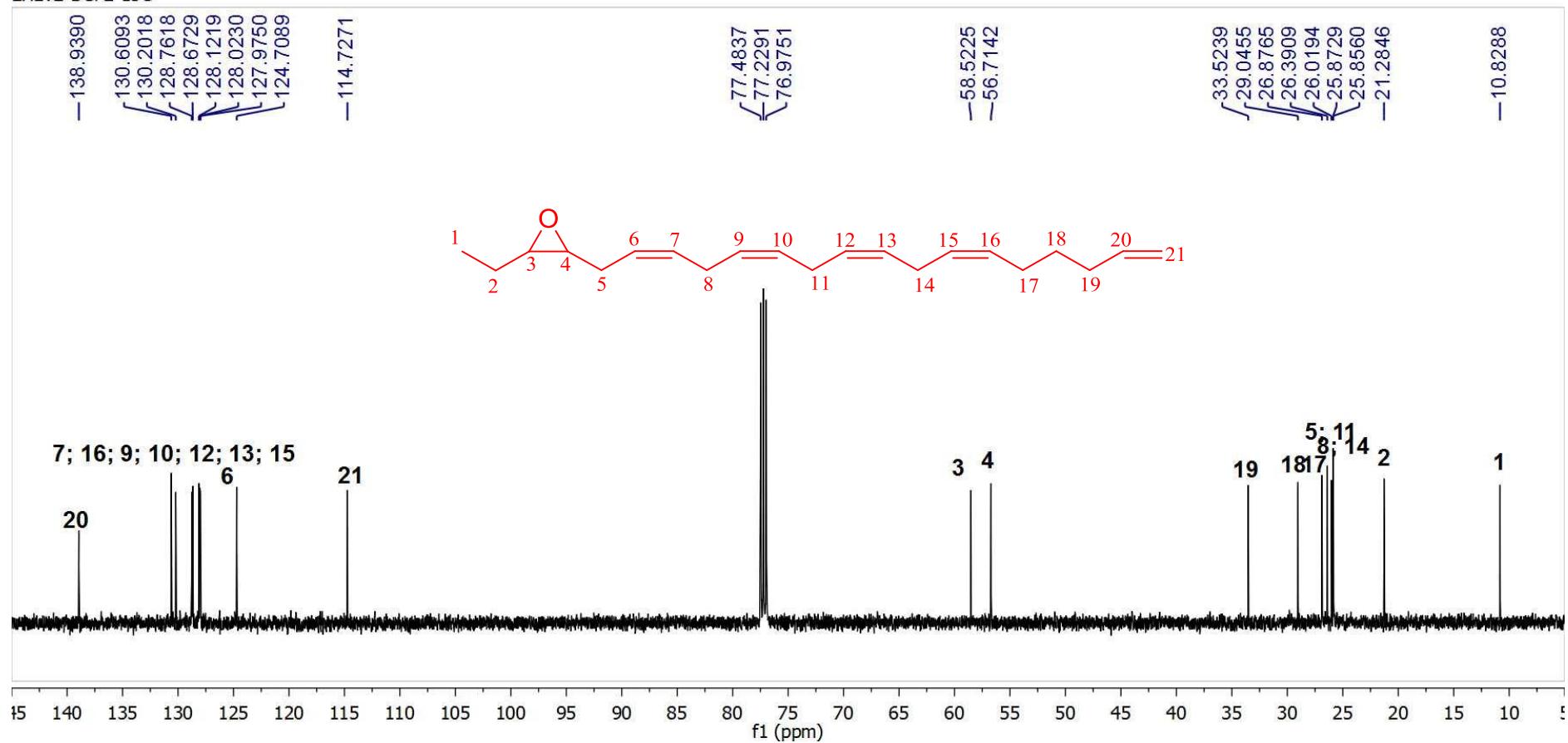


Figure S11. ^{13}C NMR (125 MHz, CDCl_3) spectrum of 3,4-epoxy-lobophorene B.

EHLV2-BGP2-13C-APT

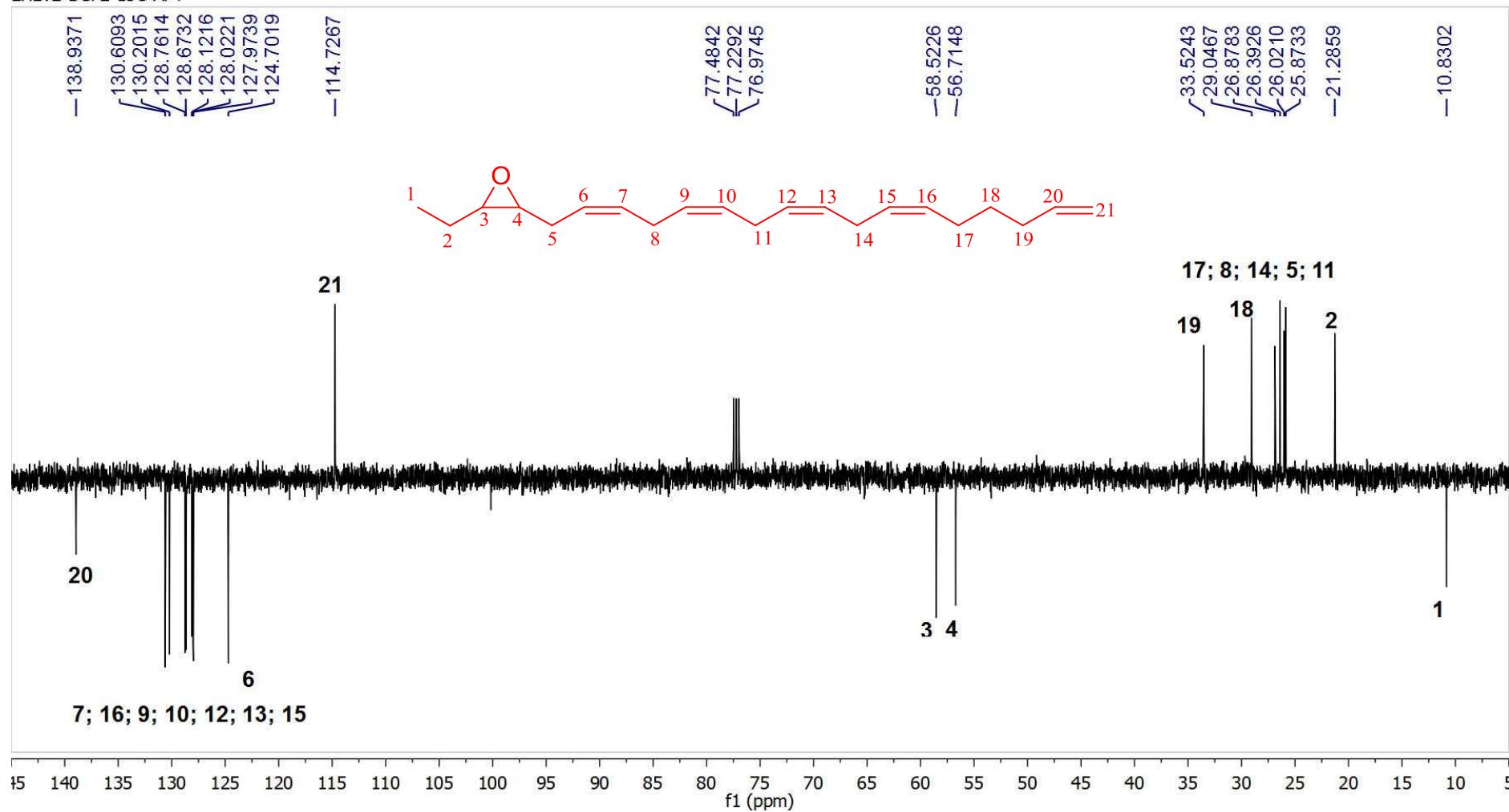


Figure S12. APT NMR (125 MHz, CDCl_3) spectrum of epoxy-lobophorene B.

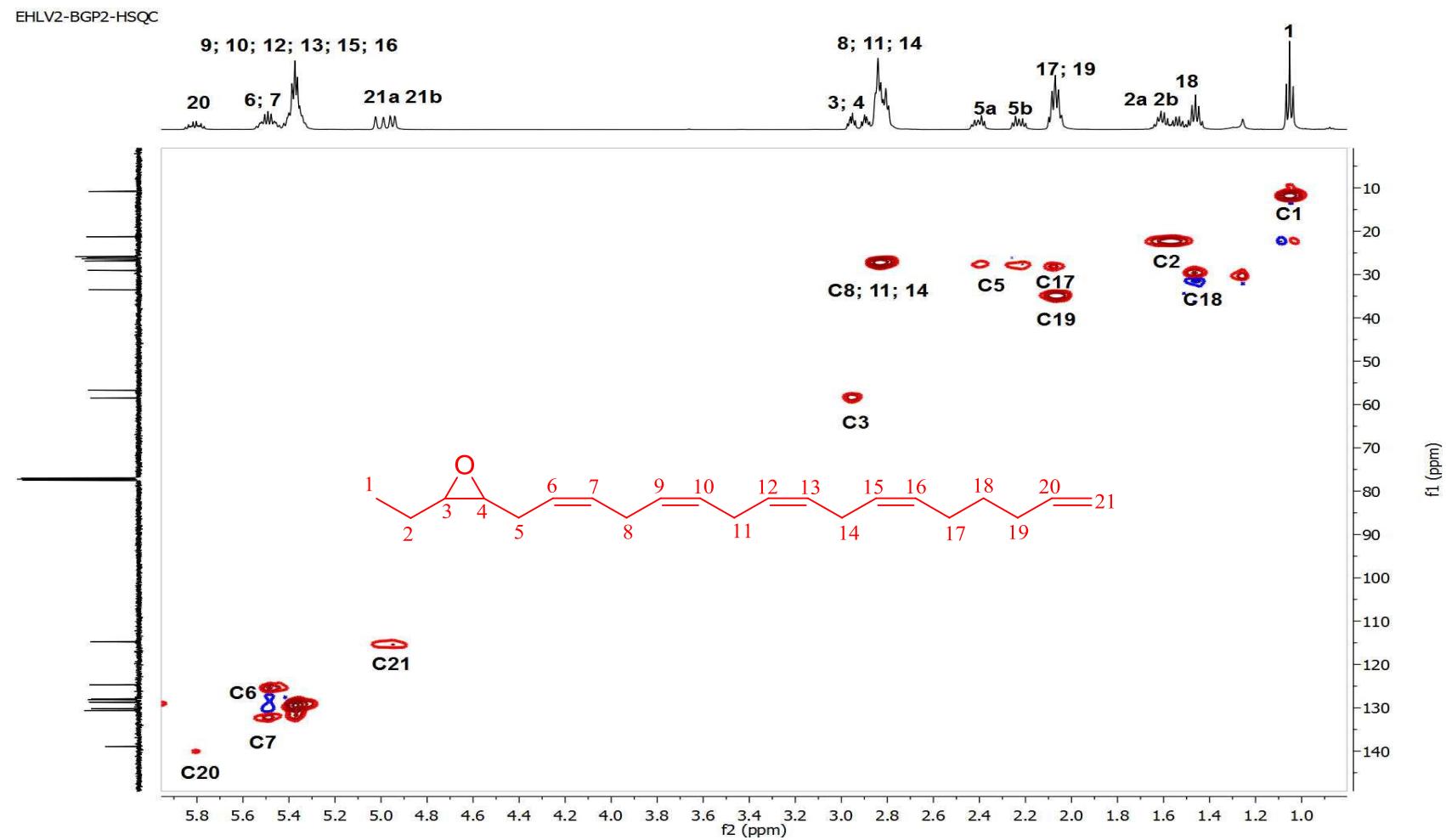


Figure S13. $^1\text{H}, ^{13}\text{C}$ -HSQC 2D NMR (500 MHz, CDCl_3) spectrum of epoxy-lobophorene B.

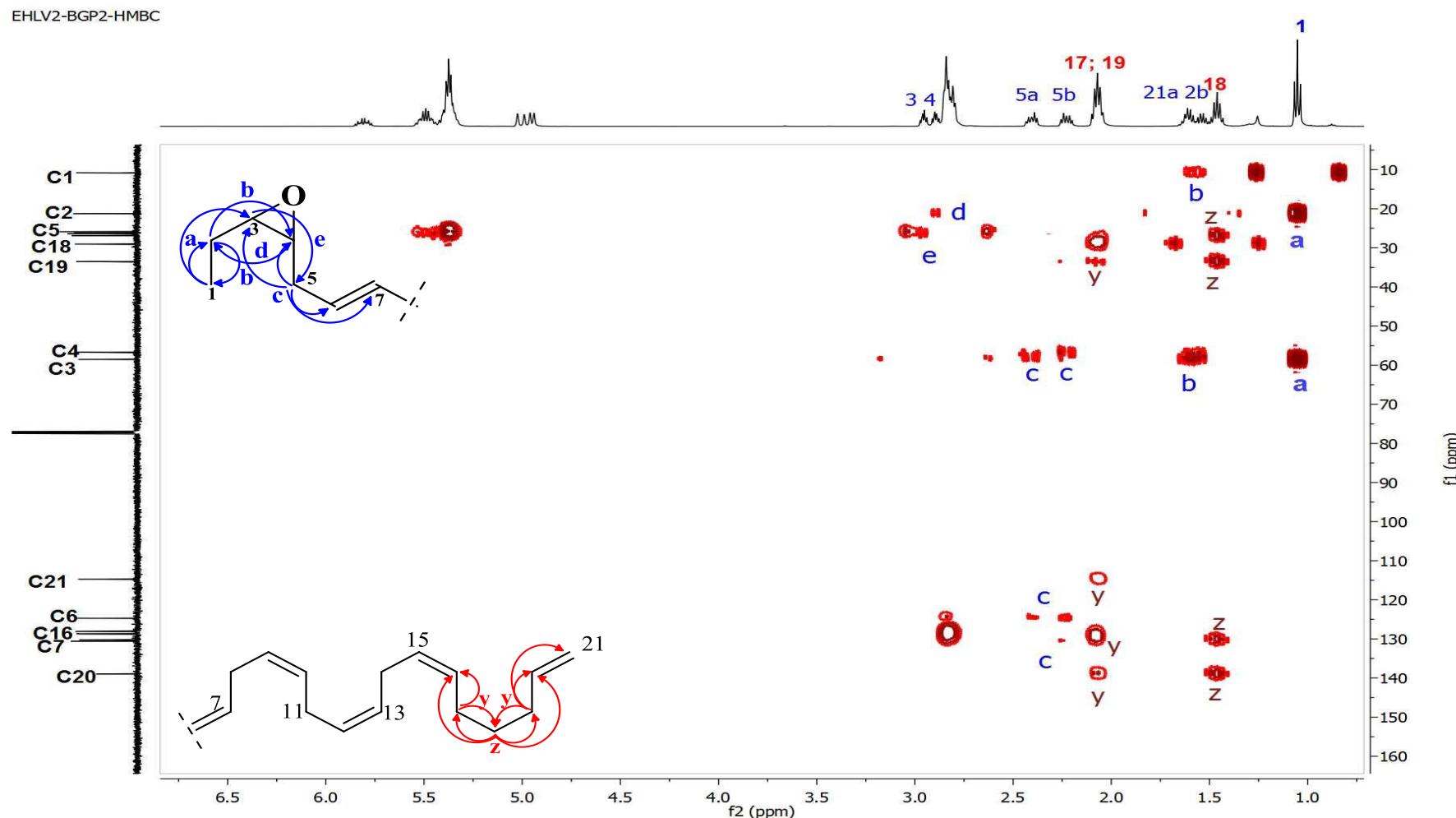


Figure S14. $^1\text{H}, ^{13}\text{C}$ -HMBC 2D NMR (500 MHz, CDCl_3) spectrum of epoxy-lobophorene B.

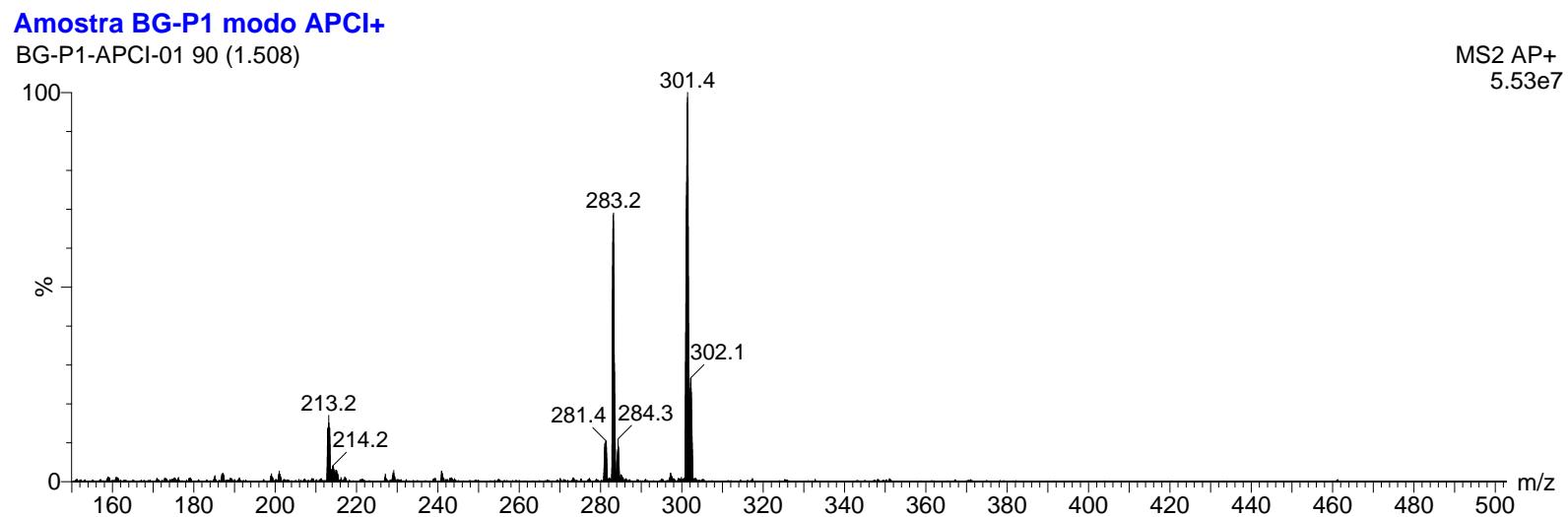


Figure S15. APCI-MS spectrum of epoxy-lobophorene B (positive mode).

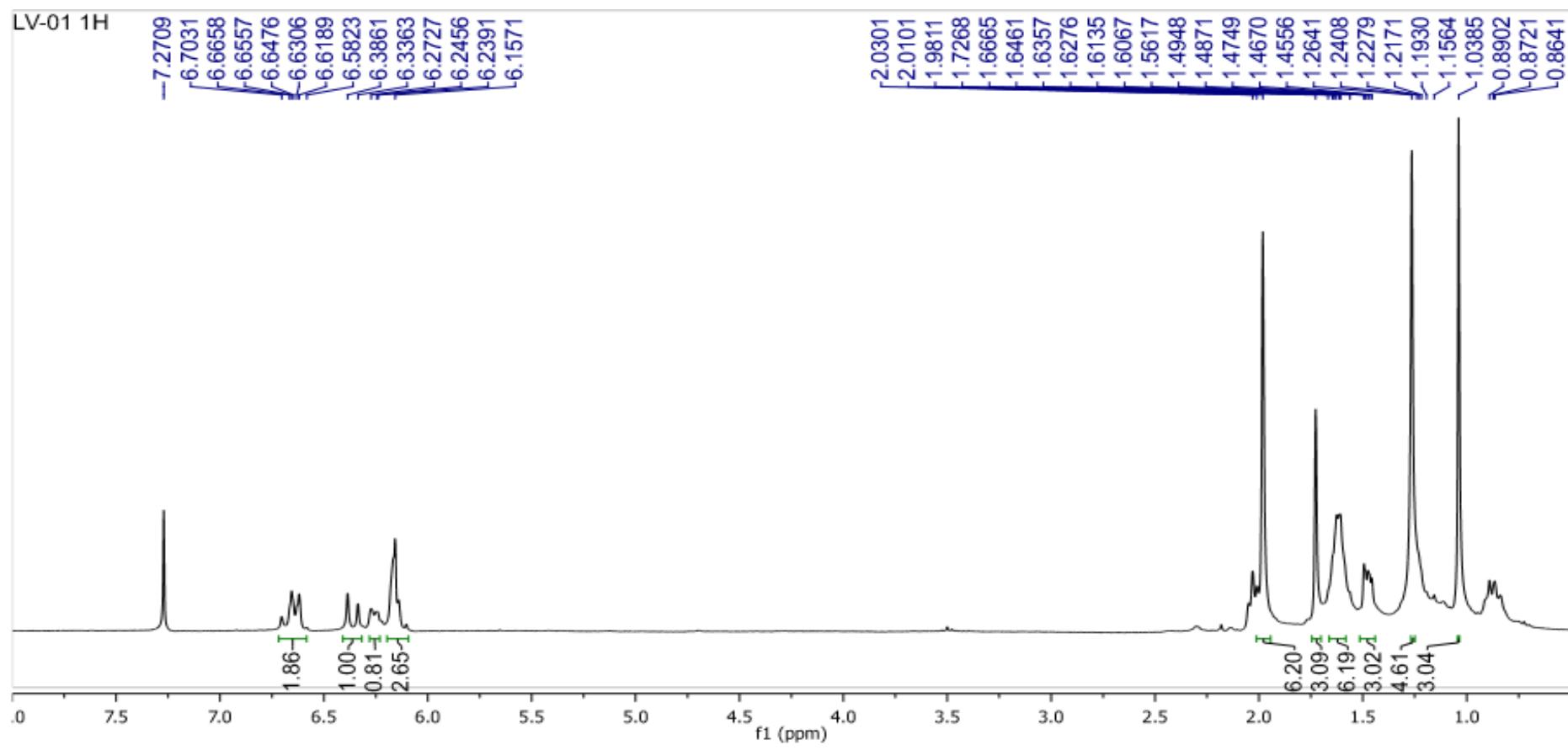


Figure S16. ^1H NMR (500 MHz, CDCl_3) spectrum of compound 3 (β -carotene).

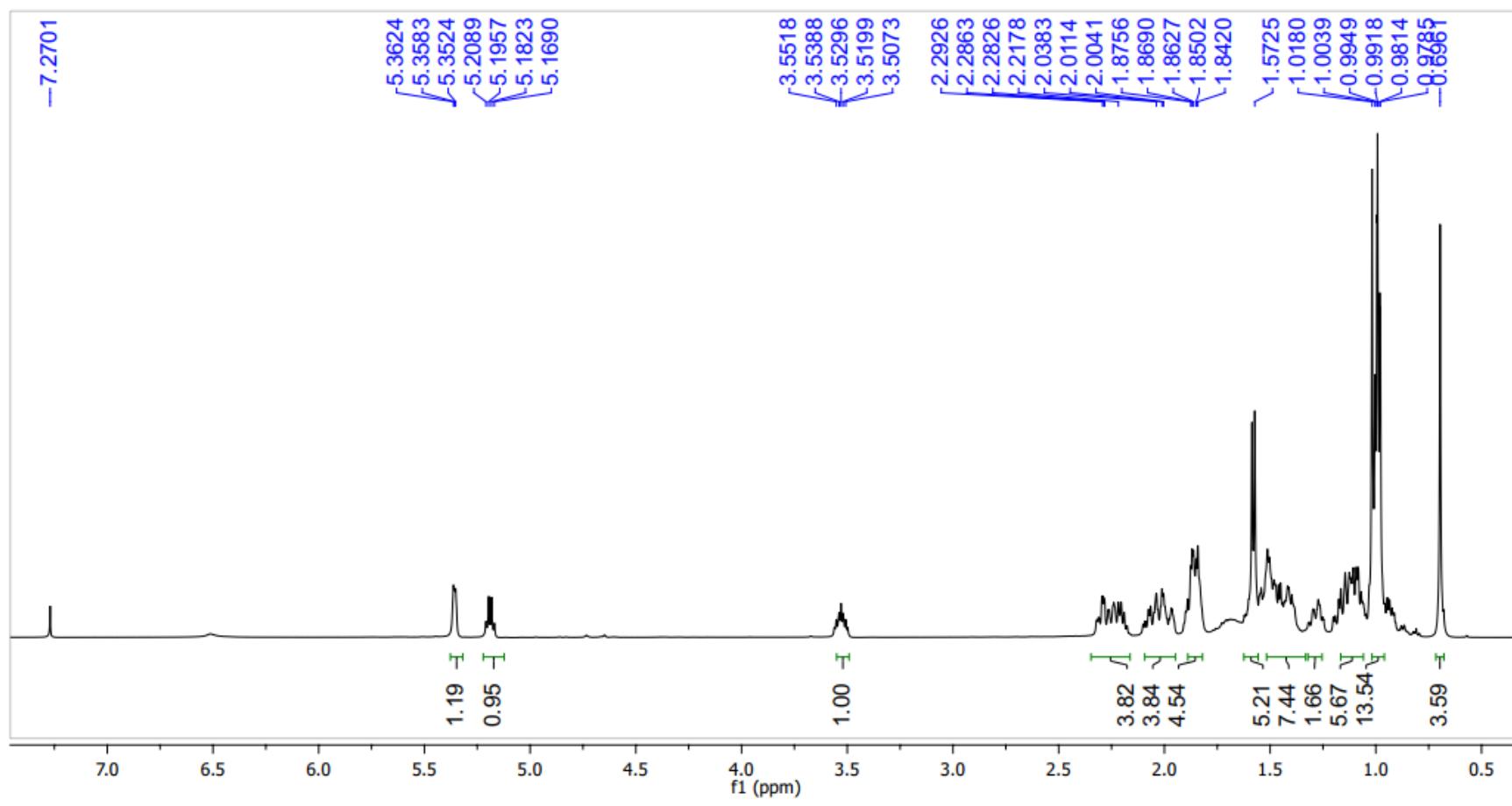


Figure S17. ^1H NMR (500 MHz, CDCl_3) spectrum of compound 4 (fucosterol).

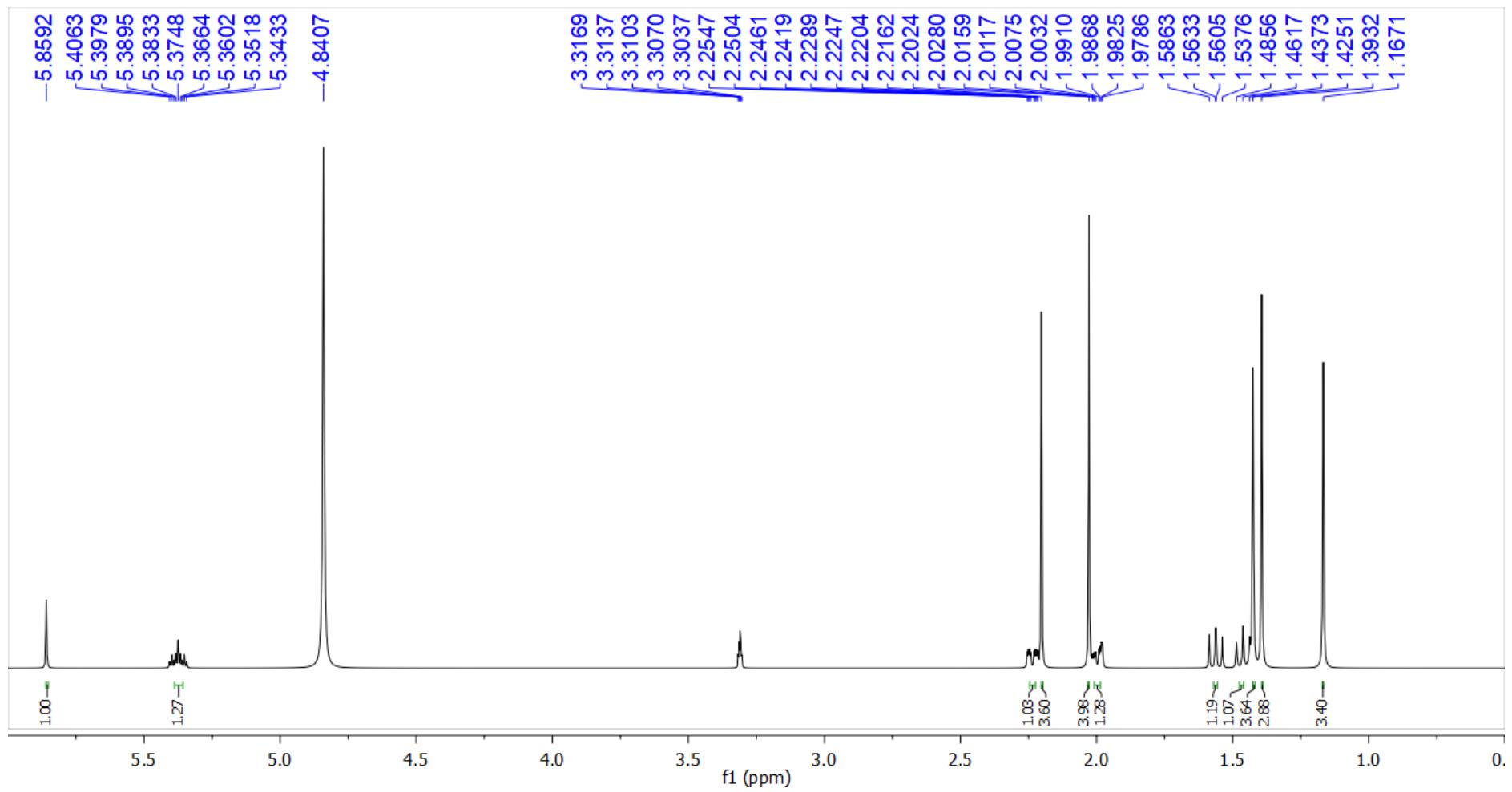


Figure S18. ^1H NMR (500 MHz, MeOD) spectrum of compound **5** (*apo'*-9-fucoxanthinone).

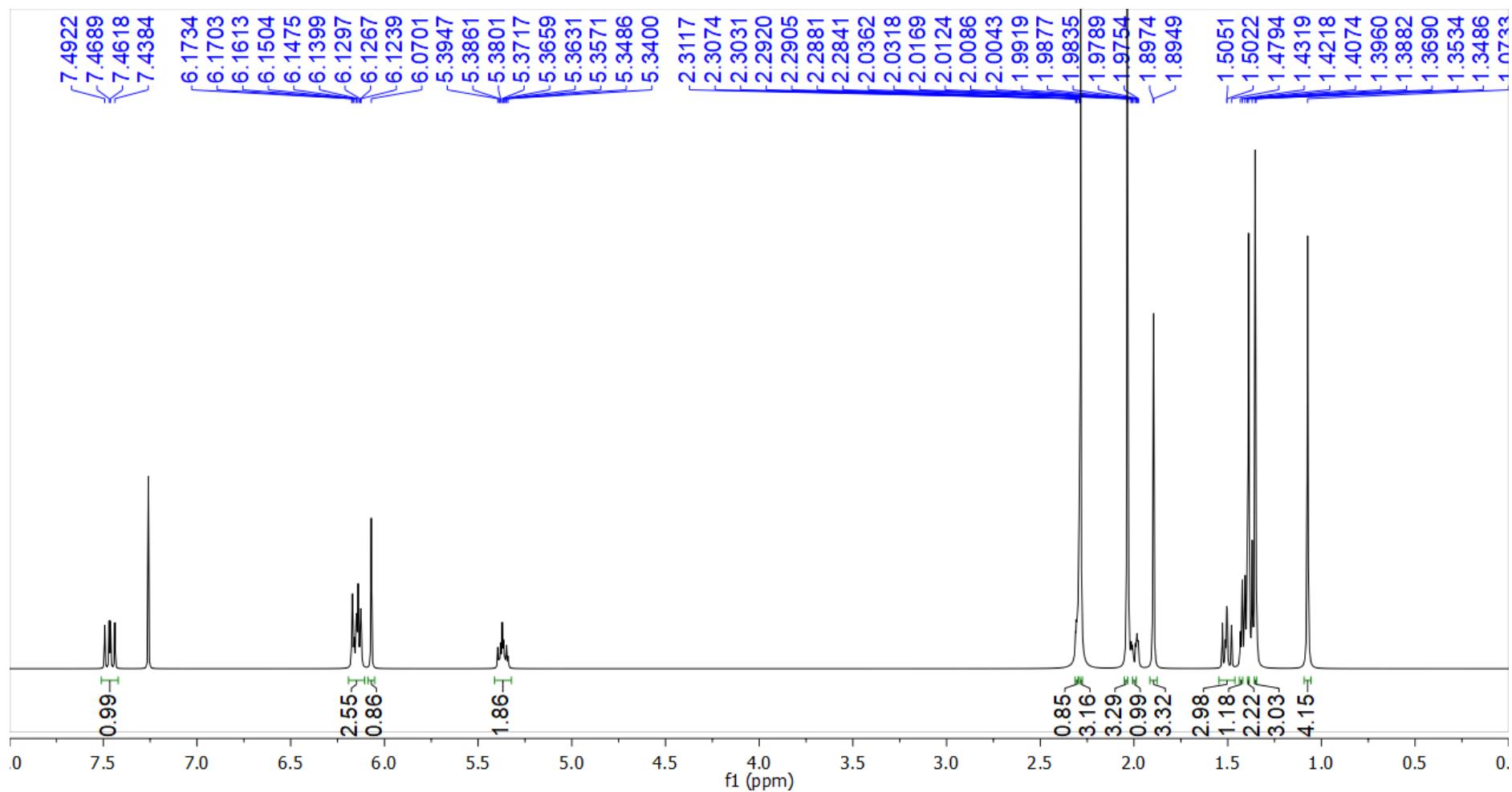


Figure S19. ^1H NMR (500 MHz, CDCl_3) spectrum of compound 6 (*apo'*-13-fucoxanthinone).

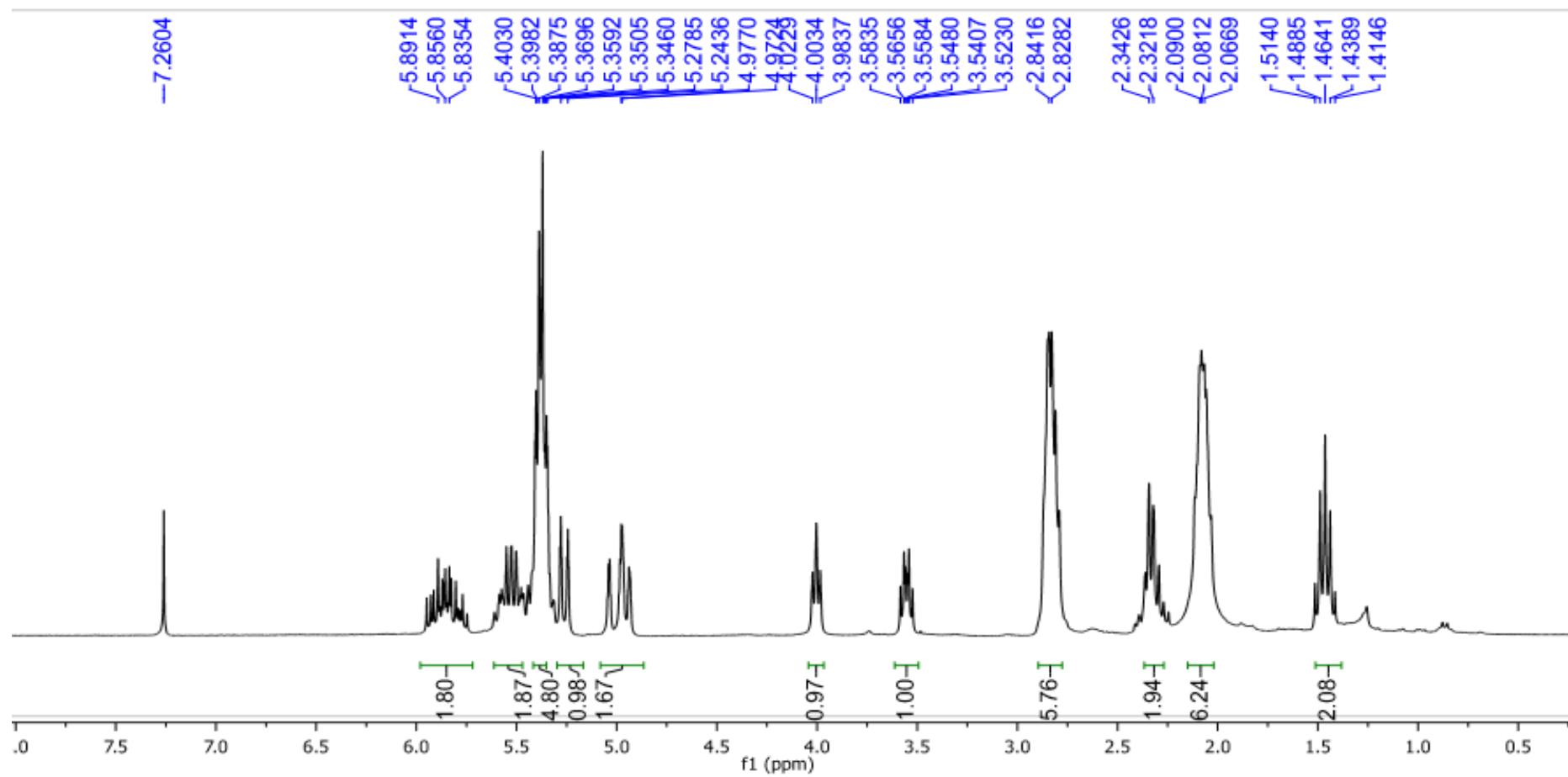


Figure S20. ${}^1\text{H}$ NMR (500 MHz, CDCl_3) spectrum of compound 7 (lobophorenol B).

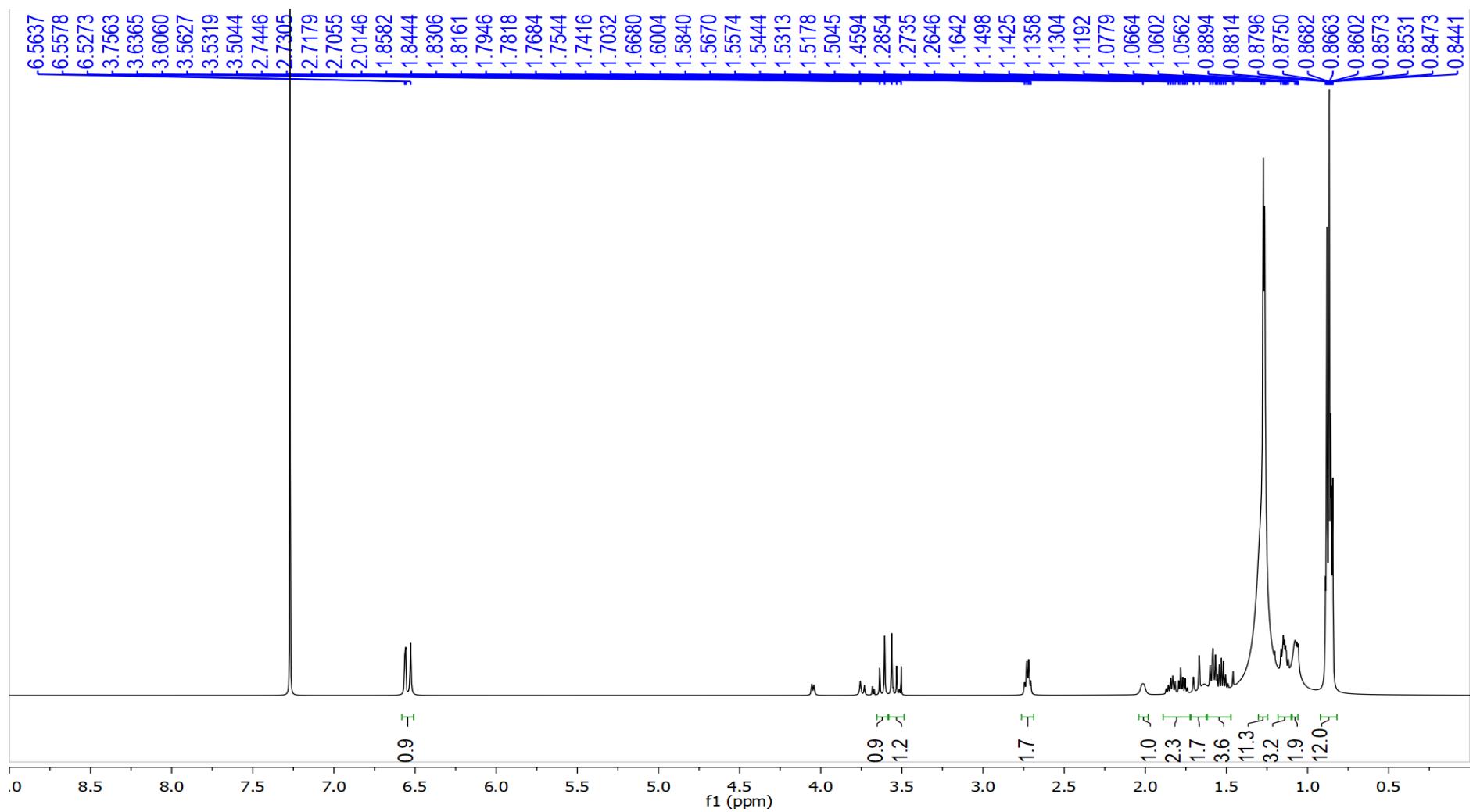


Figure S21. ^1H NMR (500 MHz, CDCl_3) spectrum of compound 8 (phytene glyceryl ether).

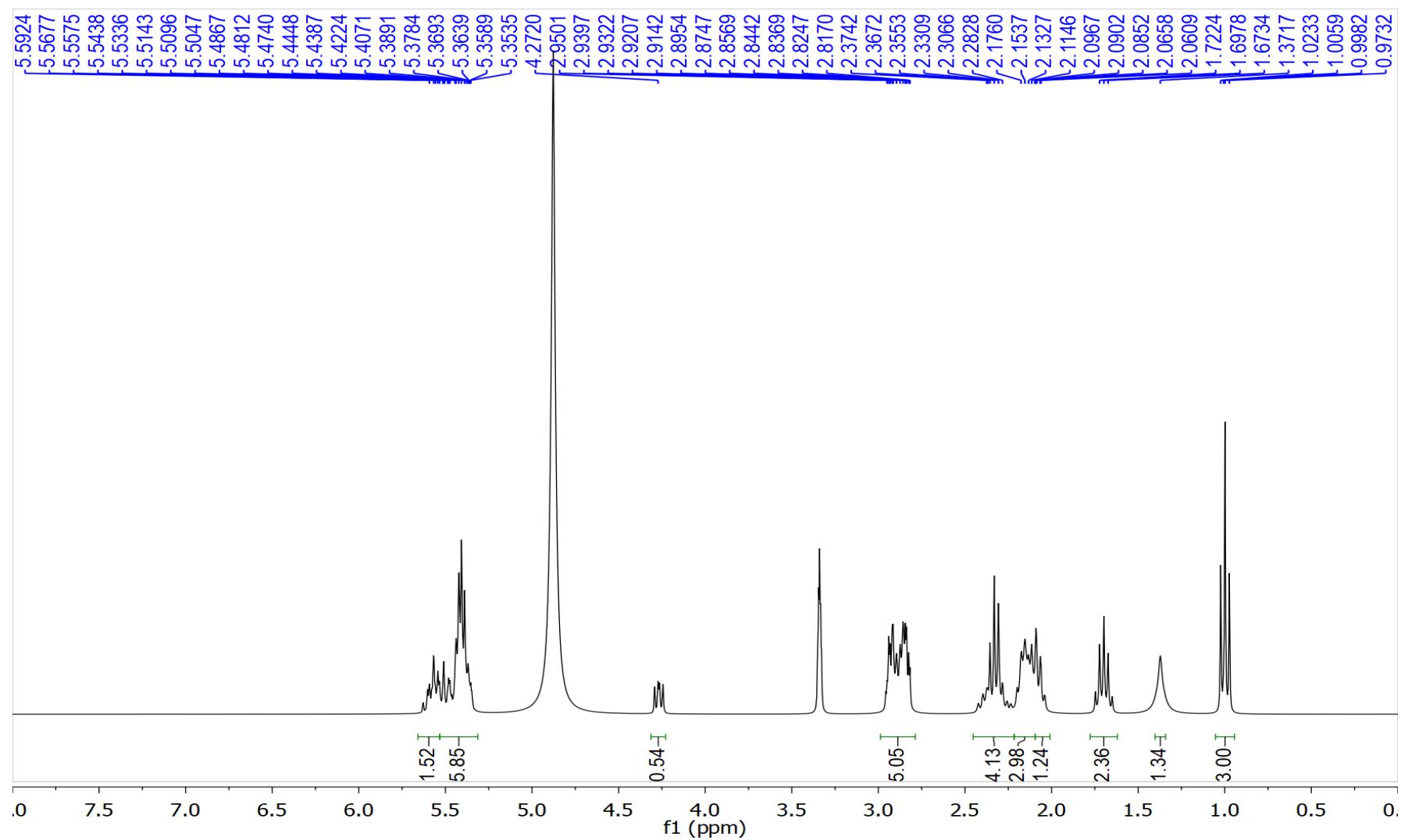


Figure S22. ${}^1\text{H}$ NMR (500 MHz, MeOD) spectrum of compound 9 (7,8-HepETE).

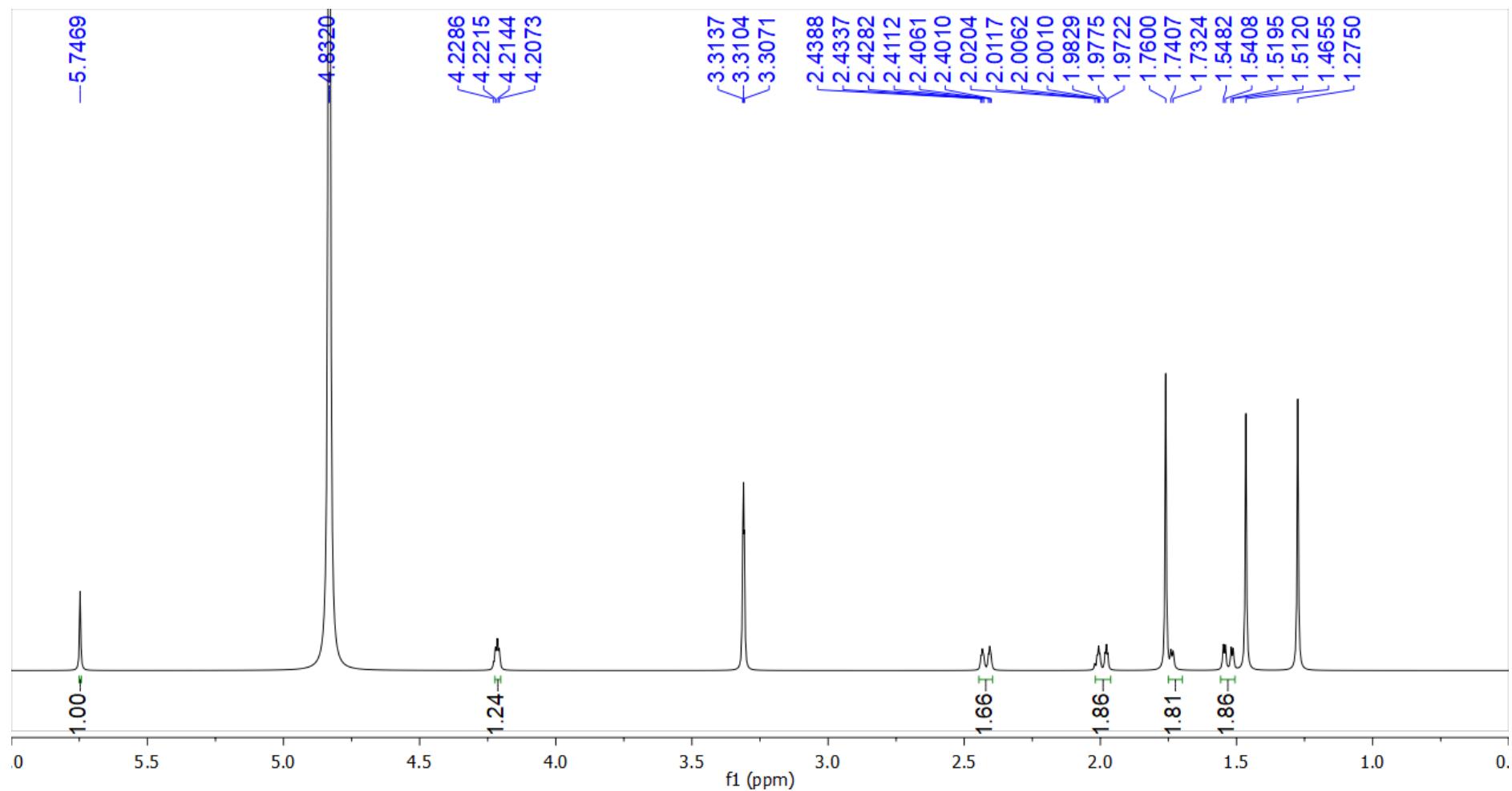


Figure S23. ${}^1\text{H}$ NMR (500 MHz, MeOD) spectrum of compound **10** (loliolide).

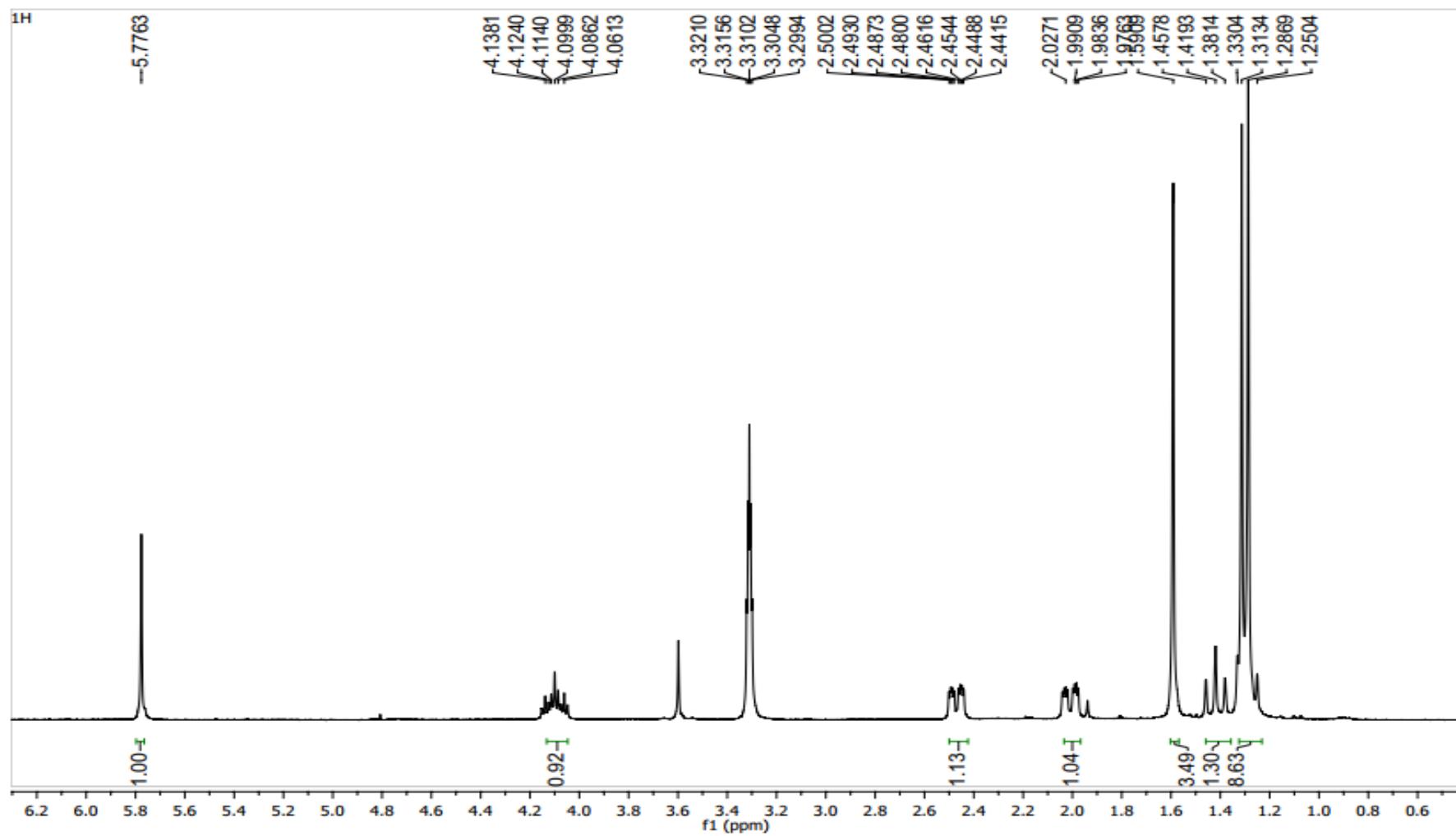


Figure S24. ^1H NMR (500 MHz, MeOD) spectrum of compound **11** (isololiolide).