

Figure S1. The ¹H NMR spectrum (CDCl₃, 400 MHz) of the essential oil of the leaves of *T. diversifolia*.

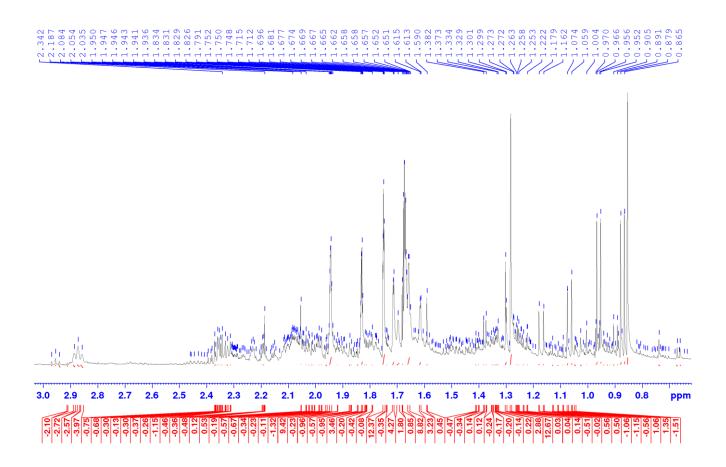


Figure S2. Amplification (0.5–3.0) of the ¹H NMR spectrum (CDCl₃, 400 MHz) of the essential oil of the leaves of *T. diversifolia*.

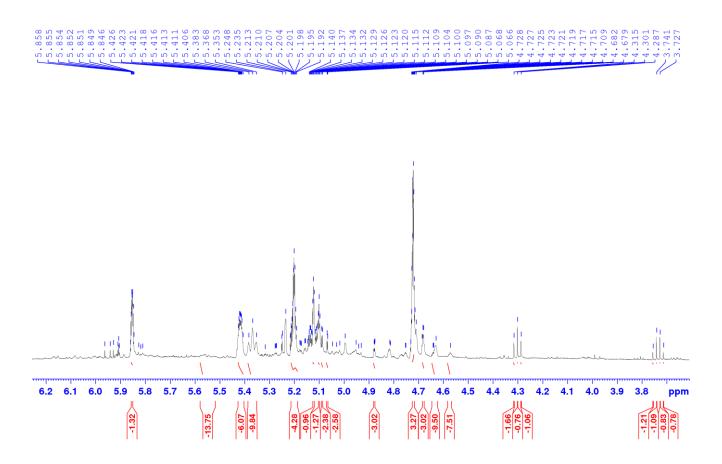


Figure S3. Amplification (6.2–3.8) of the ¹H NMR spectrum (CDCl₃, 400 MHz) of the essential oil of the leaves of *T. diversifolia*.

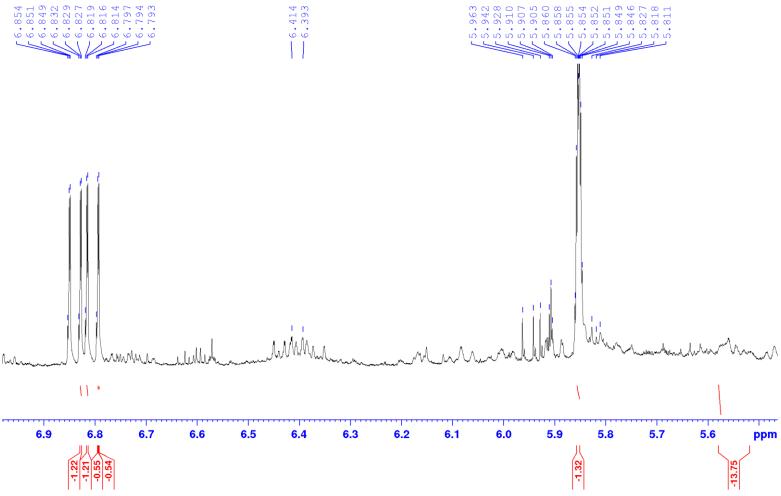


Figure S4. Amplification (6.9–5.6) of the ¹H NMR spectrum (CDCl₃, 400 MHz) of the essential oil of the leaves of *T. diversifolia*.

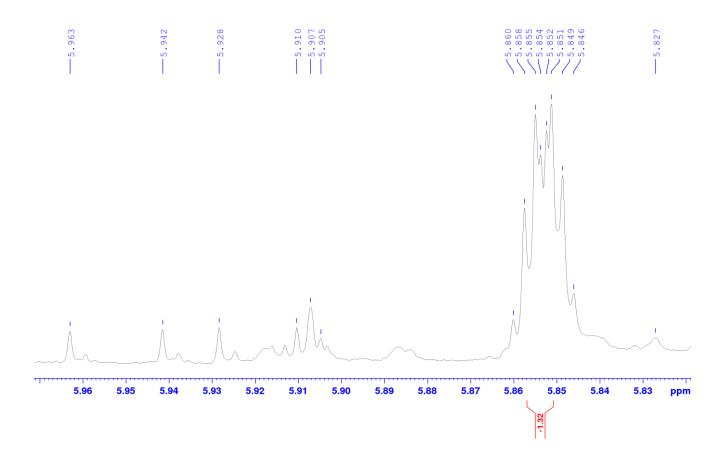


Figure S5. Amplification (5.96–5.83) of the ¹H NMR spectrum (CDCl₃, 400 MHz) of the essential oil of the leaves of *T. diversifolia*.

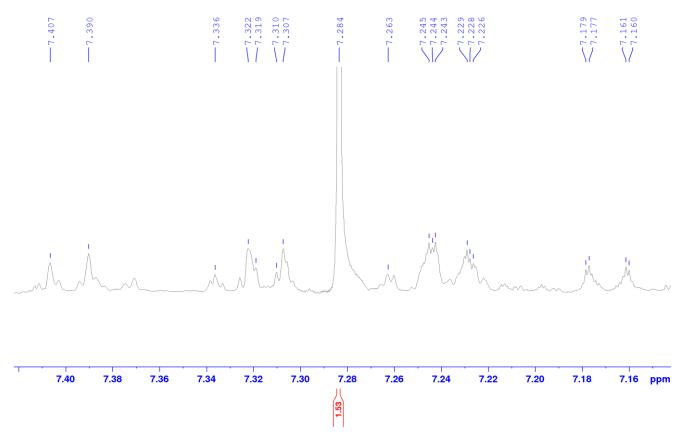


Figure S6. Amplification (7.40–7.16) of the ¹H NMR spectrum (CDCl₃, 400 MHz) of the essential oil of the leaves of *T. diversifolia*.

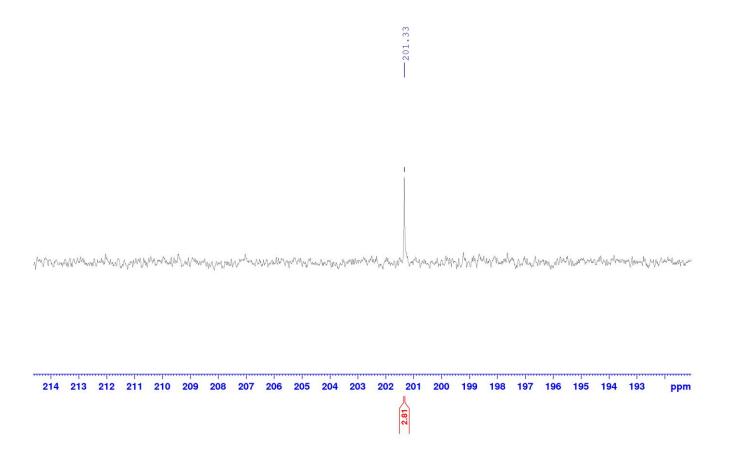
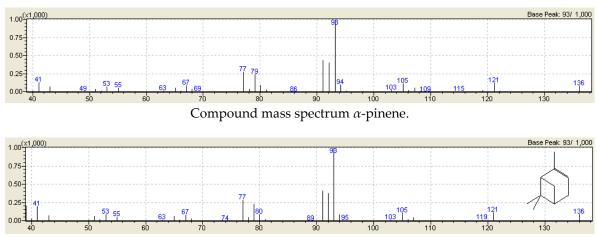
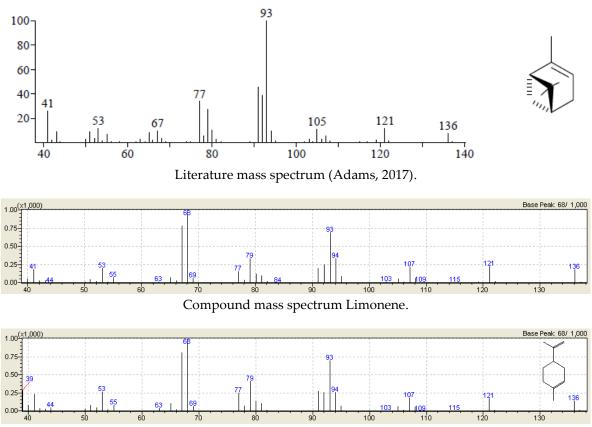


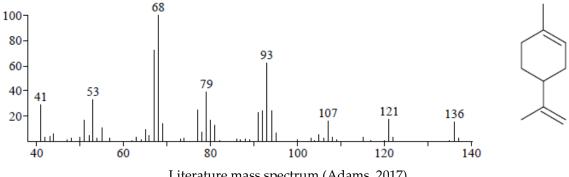
Figure S7. Amplification (214–193) of the ¹³C NMR spectrum (CDCl₃, 400 MHz) of the essential oil of the leaves of *T. diversifolia*.



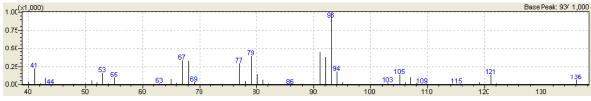
Spectrum of substance substance α -pinene of the equipment NIST05 and WILEY'S Library of Mass spectra 9th Edition.



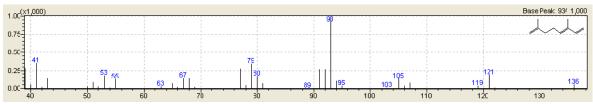
Spectrum of substance substance Limonene of the equipment NIST05 and WILEY'S Library of Mass spectra 9th Edition.



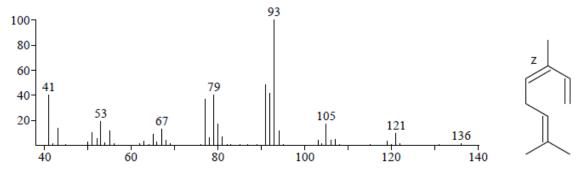
Literature mass spectrum (Adams, 2017).



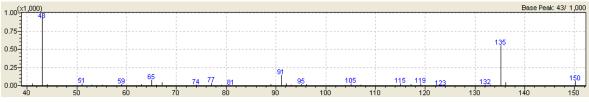
Compound mass spectrum Z- β -ocimene.



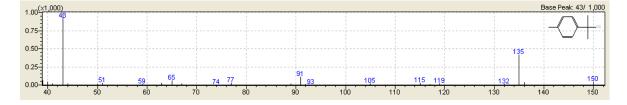
Spectrum of substance substance Z-β-ocimene of the equipment NIST05 and WILEY'S Library of Mass spectra 9th Edition.



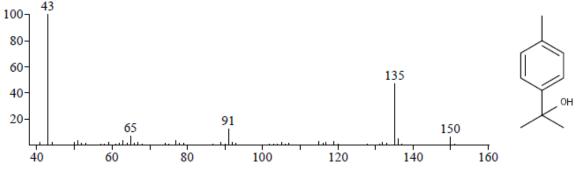
Literature mass spectrum (Adams, 2017).



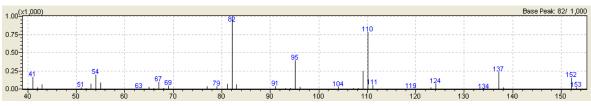
Compound mass spectrum p-cymen-8-ol.



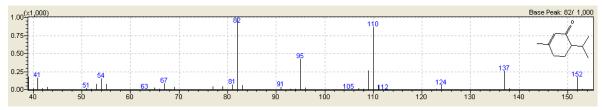
Spectrum of substance p-cymen-8-ol of the equipment NIST05 and WILEY'S Library of Mass spectra 9th Edition.



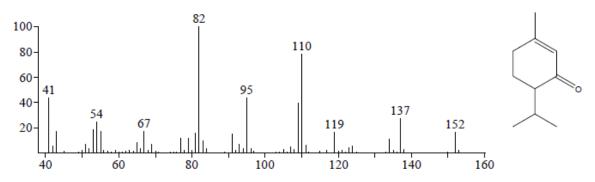
Literature mass spectrum (Adams, 2017).



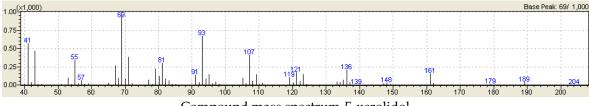
Compound mass spectrum Piperitone.



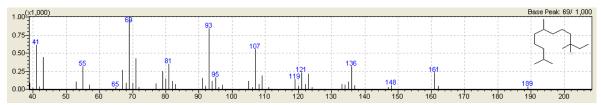
Spectrum of substance Substance Piperitone of the equipment NIST05 and WILEY'S Library of Mass spectra 9th Edition.



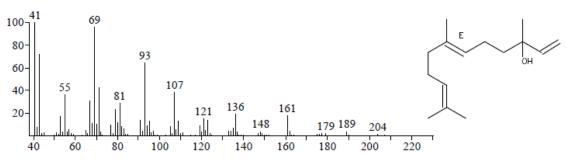
Literature mass spectrum (Adams, 2017).



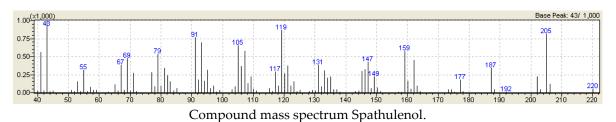
Compound mass spectrum *E-n*erolidol.



Spectrum of substance *E-n*erolidol of the equipment NIST05 and WILEY'S Library of Mass spectra 9th Edition.



Literature mass spectrum (Adams, 2017).



1.00(x1,000)

Base Peak: 43/ 1,000

0.75

0.50

0.25

0.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

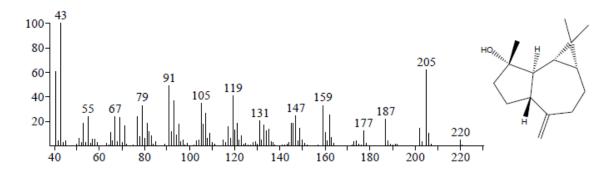
1.00

1.00

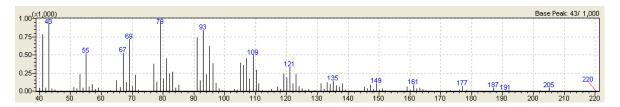
1.00

1.00

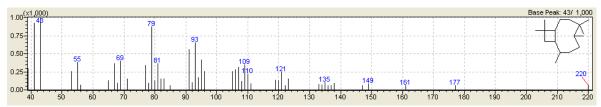
Spectrum of substance Spathulenol of the equipment NIST05 and WILEY'S Library of Mass spectra 9th Edition.



Literature mass spectrum (Adams, 2017).



Compound mass spectrum Caryophyllene oxide.



Spectrum of substance Substance Caryophyllene oxide of the equipment NIST05 and WILEY'S Library of Mass spectra 9th Edition.

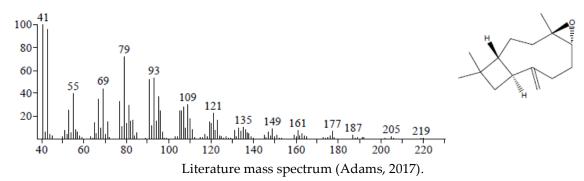


Figure S8. Mass spectra of the major compounds *Tithonia diversifolia* and ¹H NMR spectrum and ¹³C essential oil of *T. diversifolia*.