

Supplementary Information

Improving the antioxidant properties of *Calophyllum inophyllum* L. seed oil from French Polynesia: development and biological applications of ethanol-soluble resins extracts

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Table of Contents

1. ¹H-NMR Spectra of Isolated or Identified Phytoconstituents of Tamanu Resins	2
Figure S1: ¹ H-NMR spectrum of inocalophyllin B	3
Figure S2: ¹ H-NMR spectrum of inophyllum C	3
Figure S3: ¹ H-NMR spectrum of inophyllum E	4
Figure S4: ¹ H-NMR spectrum of inophyllum P	4
Figure S5: ¹ H-NMR spectrum of calophyllolide	5
Figure S6: ¹ H-NMR spectrum of 12-oxocalanolide A	5
Figure S7: ¹ H-NMR spectrum of calanolide A	6
Figure S8: ¹ H-NMR spectrum of calanolide D	6
Figure S9: ¹ H-NMR spectrum of calanolide GUT 70	7
Figure S10: ¹ H-NMR spectrum of tamanolide	7
Figure S11: ¹ H-NMR spectrum of tamanolide D	8
Figure S12: ¹ H-NMR spectrum of Fraction D	8
Figure S13: ¹ H-NMR spectrum of Fraction P	9
2. ¹³C-NMR Spectra of some Isolated Phytoconstituents of Tamanu Resins	9
Figure S14: ¹³ C DEPT 135-NMR spectrum of inocalophyllin B	9
Figure S15: ¹³ C DEPT 135-NMR spectrum of calanolide A	10
Figure S16: ¹³ C DEPT 135-NMR spectrum of calanolide GUT 70	10
Figure S17: ¹³ C DEPT 135-NMR spectrum of tamanolide D	11
3. MS Analysis of Isolated Phytoconstituents of Tamanu Resins	11
4. EPR Spin Trapping	12
Scheme S1. Formation of HO• and O ₂ •-/HOO• DEPMPO spin adducts	12

1. ¹H-NMR Spectra of Isolated or Identified Phytoconstituents of Tamano Resins

Figure S1. ¹H-NMR spectrum of inocalophyllin B

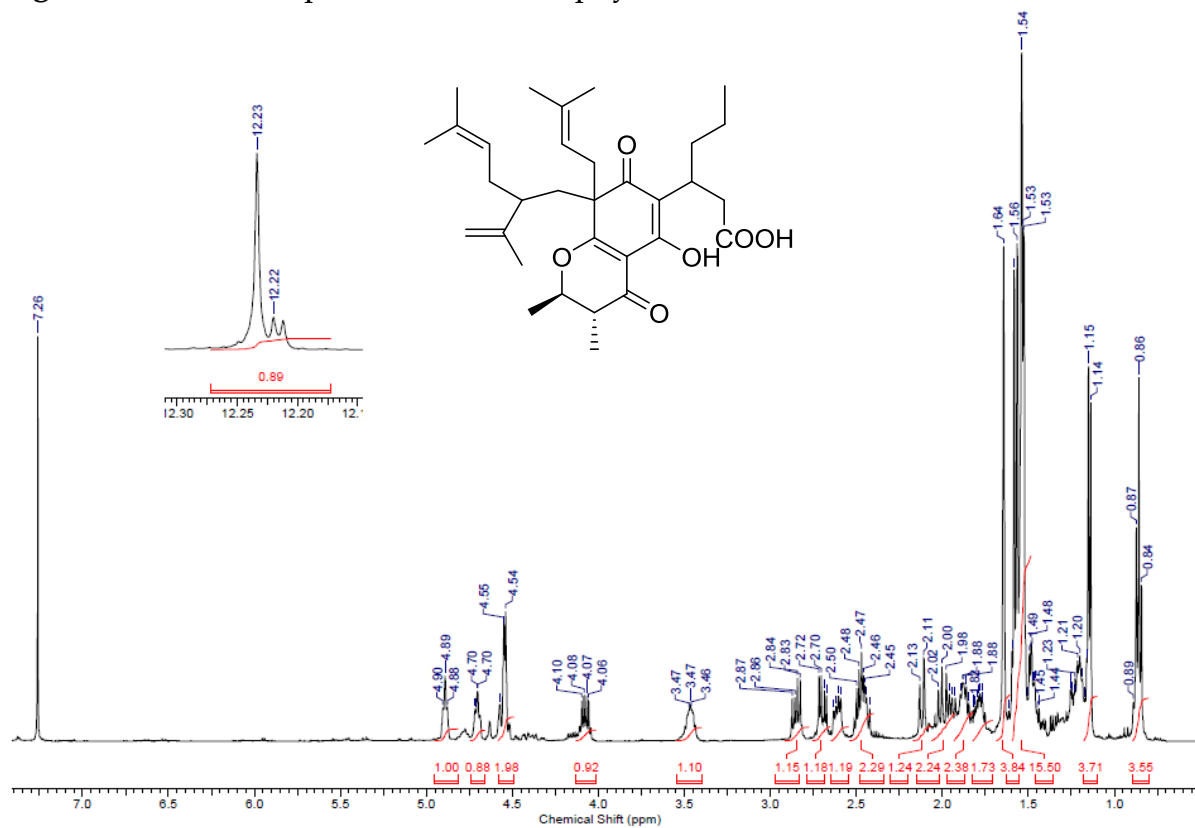


Figure S2. ¹H-NMR spectrum of inophyllum C

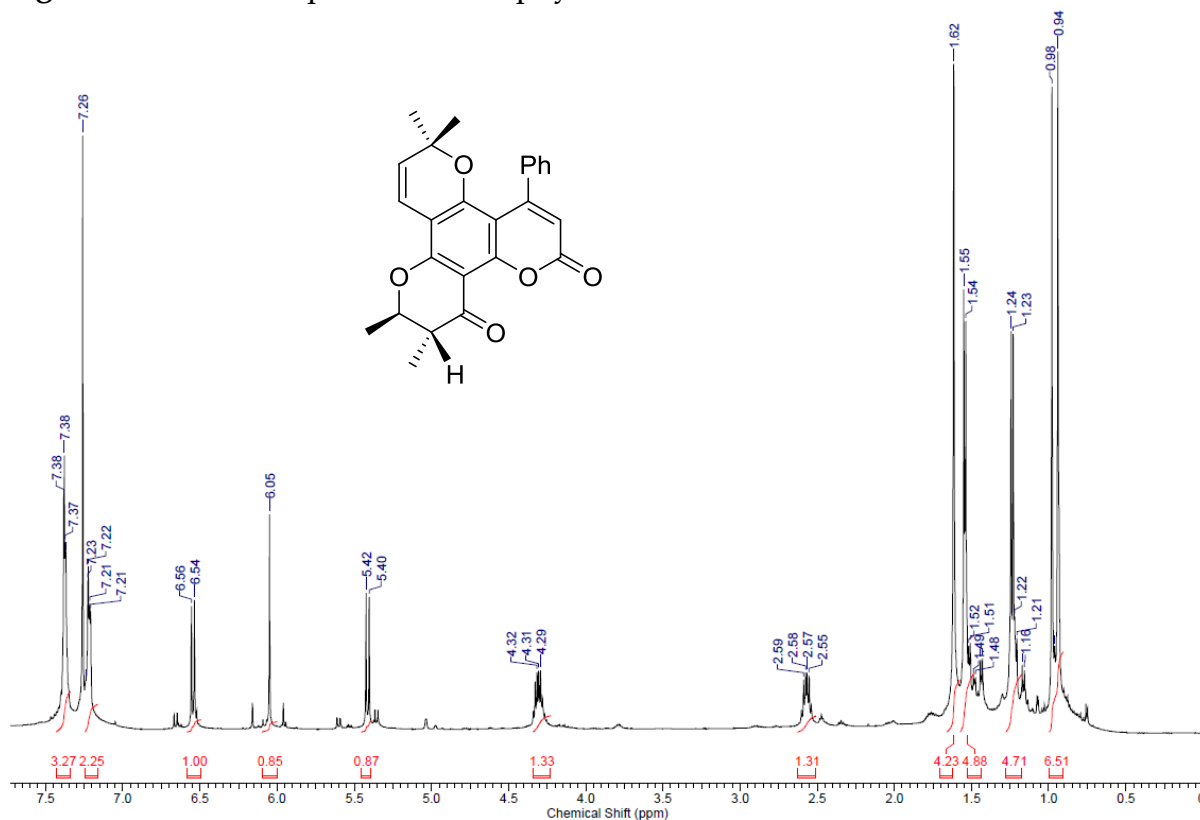


Figure S3. ¹H-NMR spectrum of inophyllum E

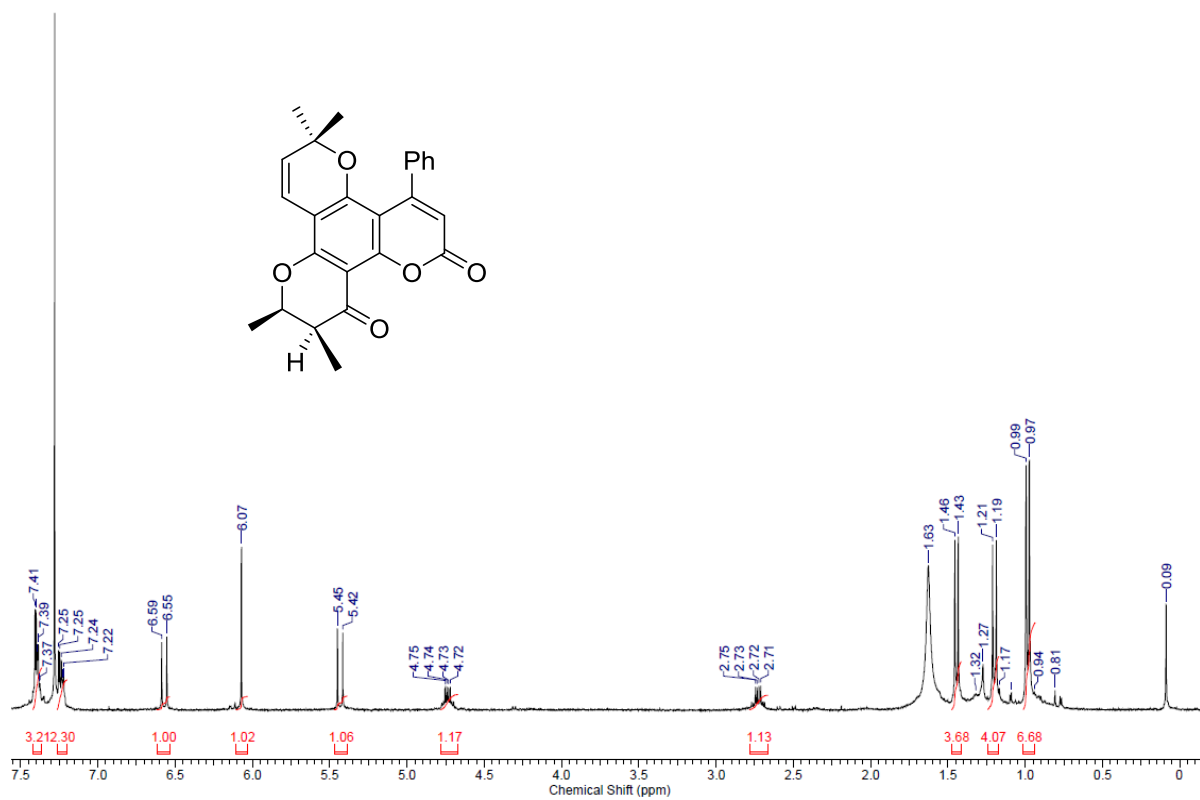


Figure S4. ¹H-NMR spectrum of inophyllum P

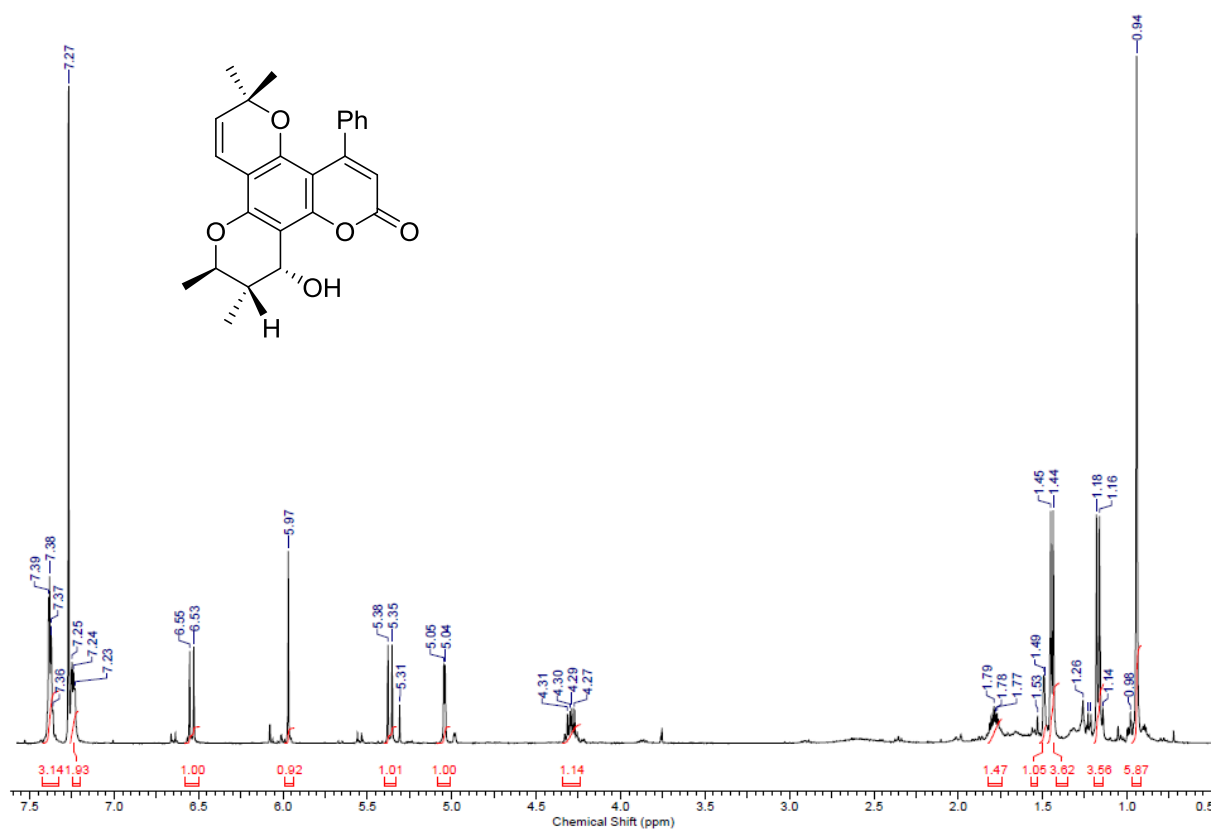


Figure S5. ¹H-NMR spectrum of calophyllolide

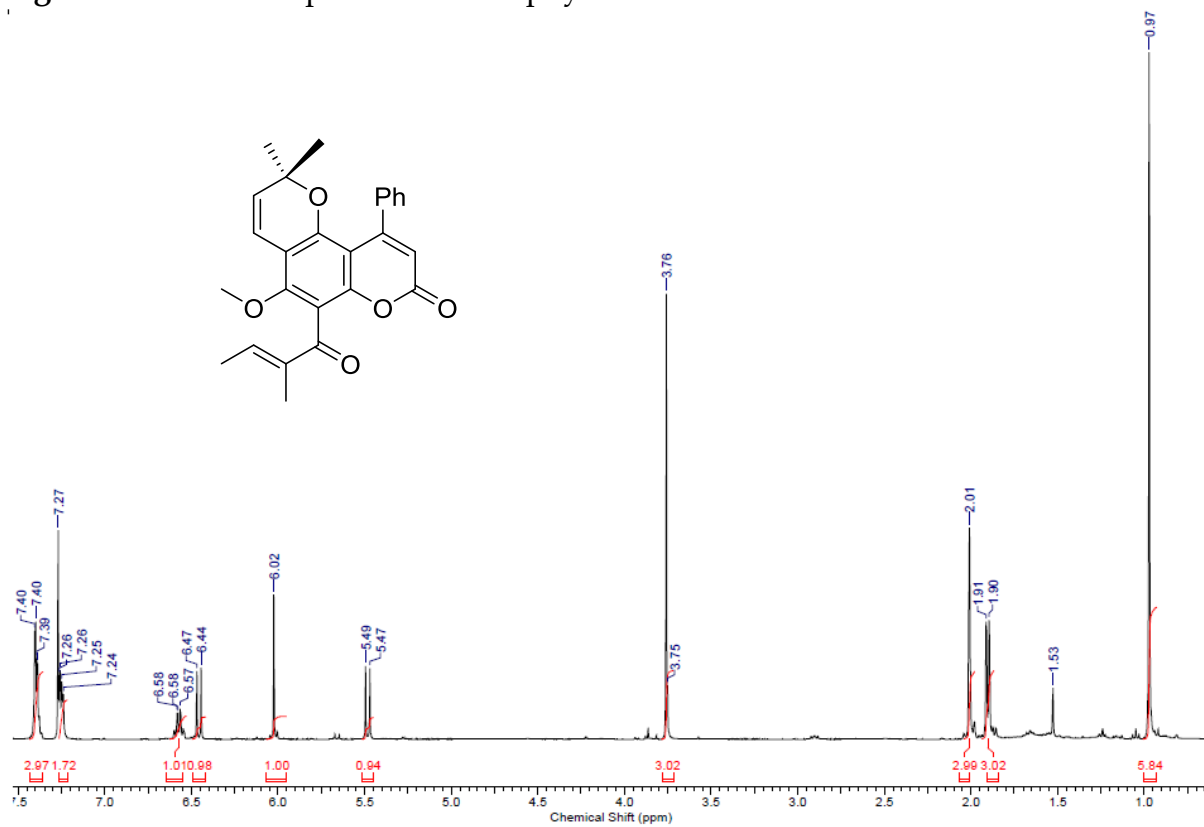


Figure S6. ¹H-NMR spectrum of 12-oxocalanolide A

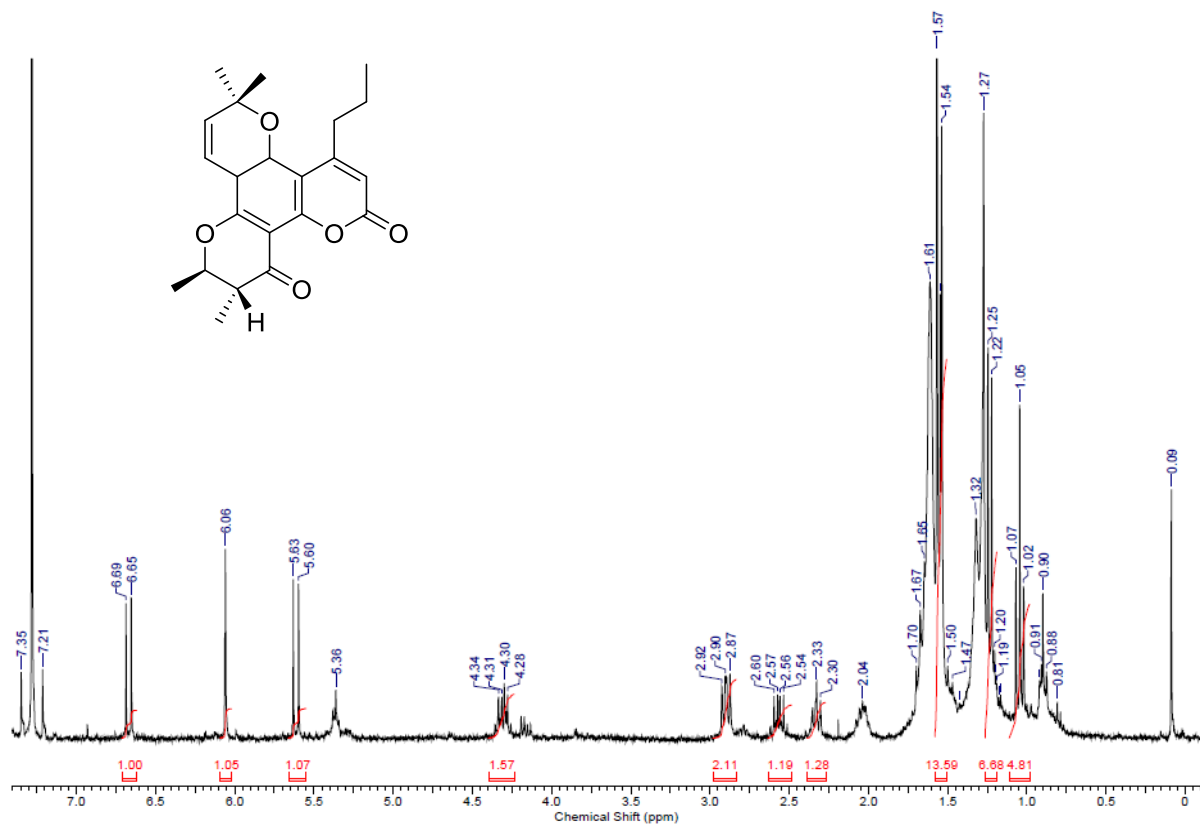


Figure S7. ¹H-NMR spectrum of calanolide A

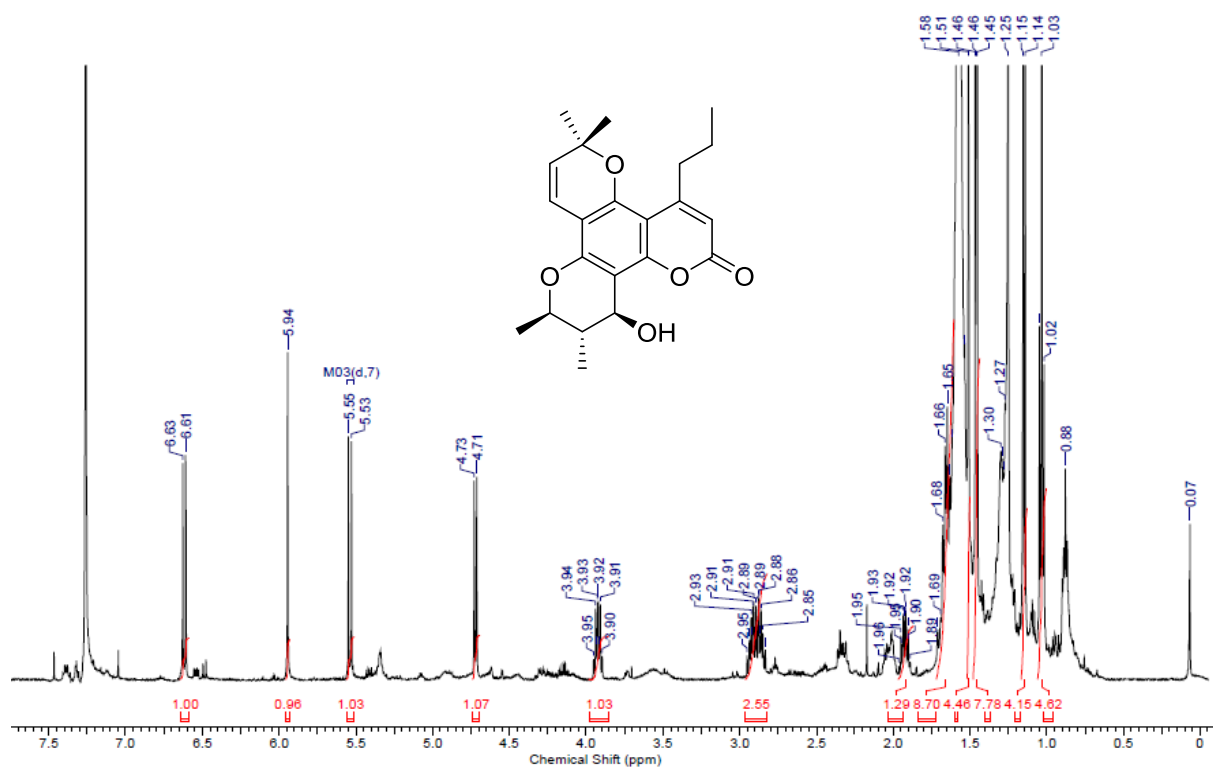


Figure S8. ¹H-NMR spectrum of calanolide D

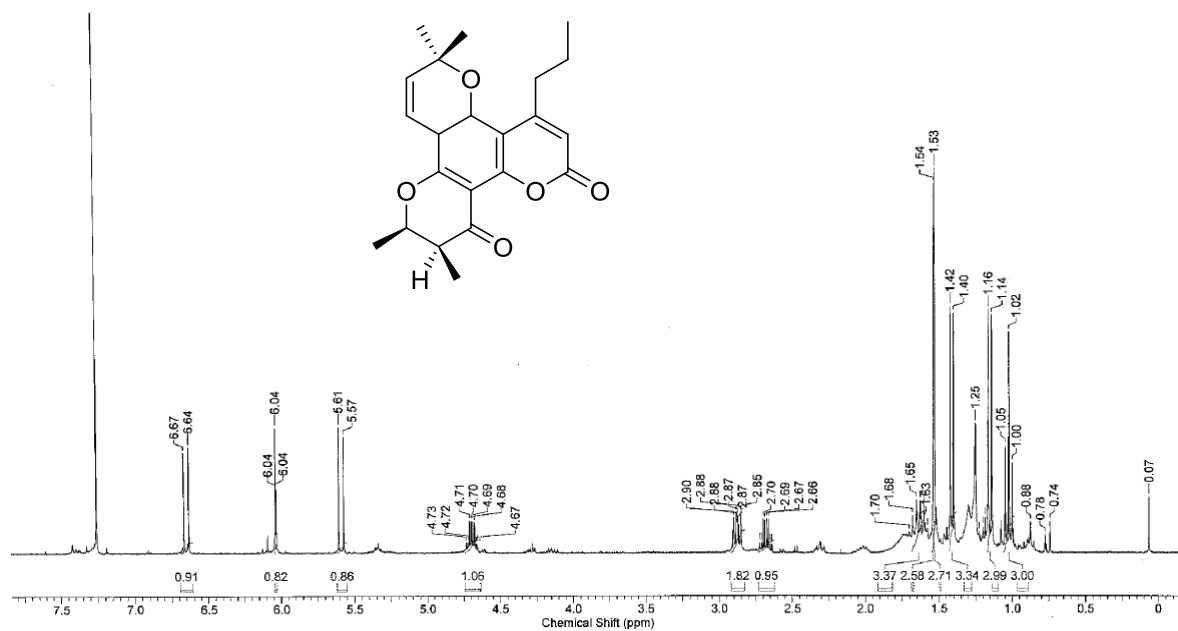


Figure S9. ¹H-NMR spectrum of calanolide GUT 70

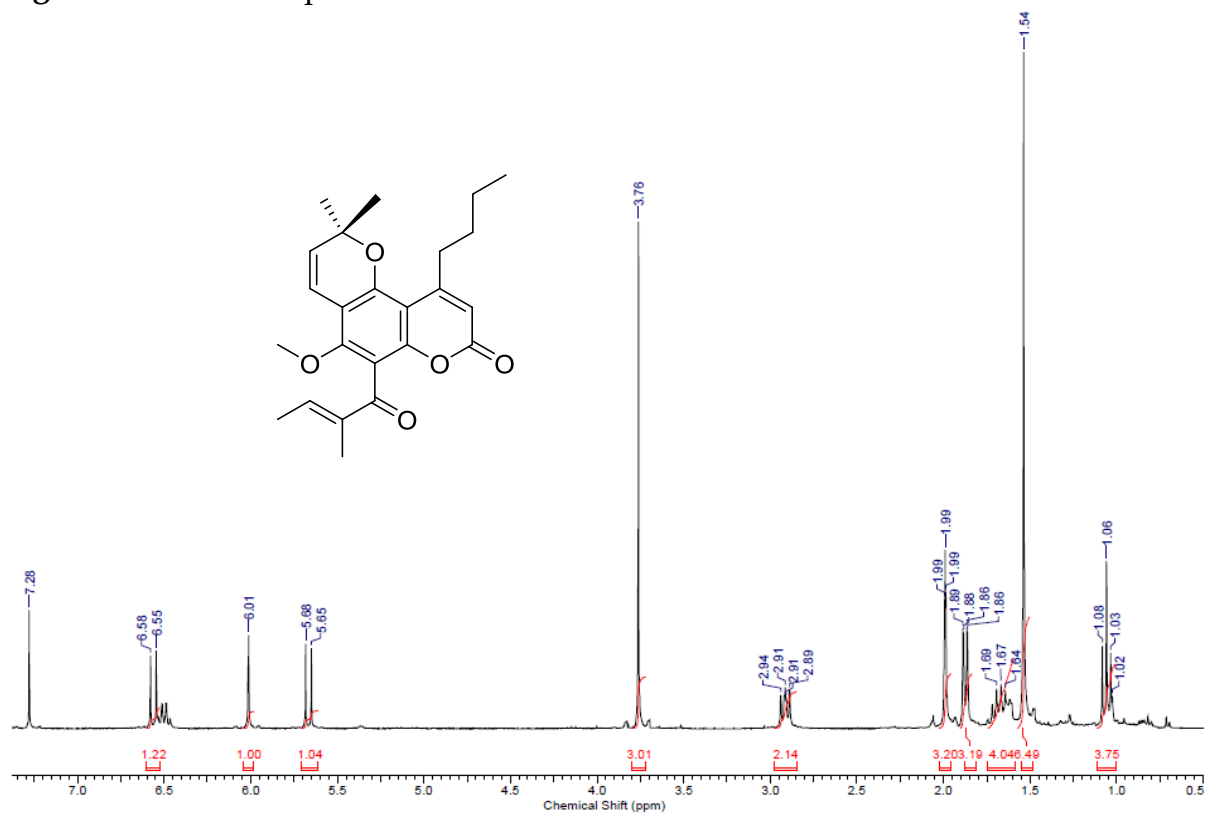


Figure S10. ¹H-NMR spectrum of tamanolide

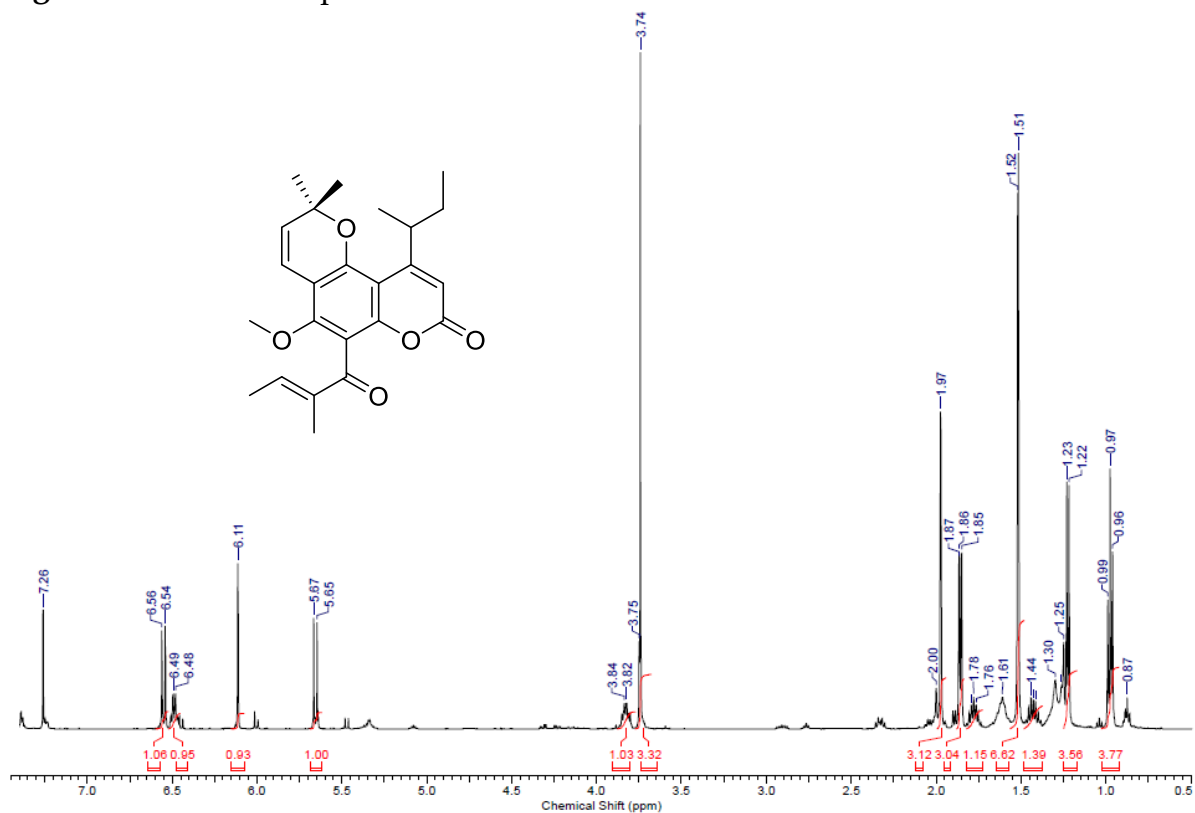


Figure S11. $^1\text{H-NMR}$ spectrum of tamanolide D

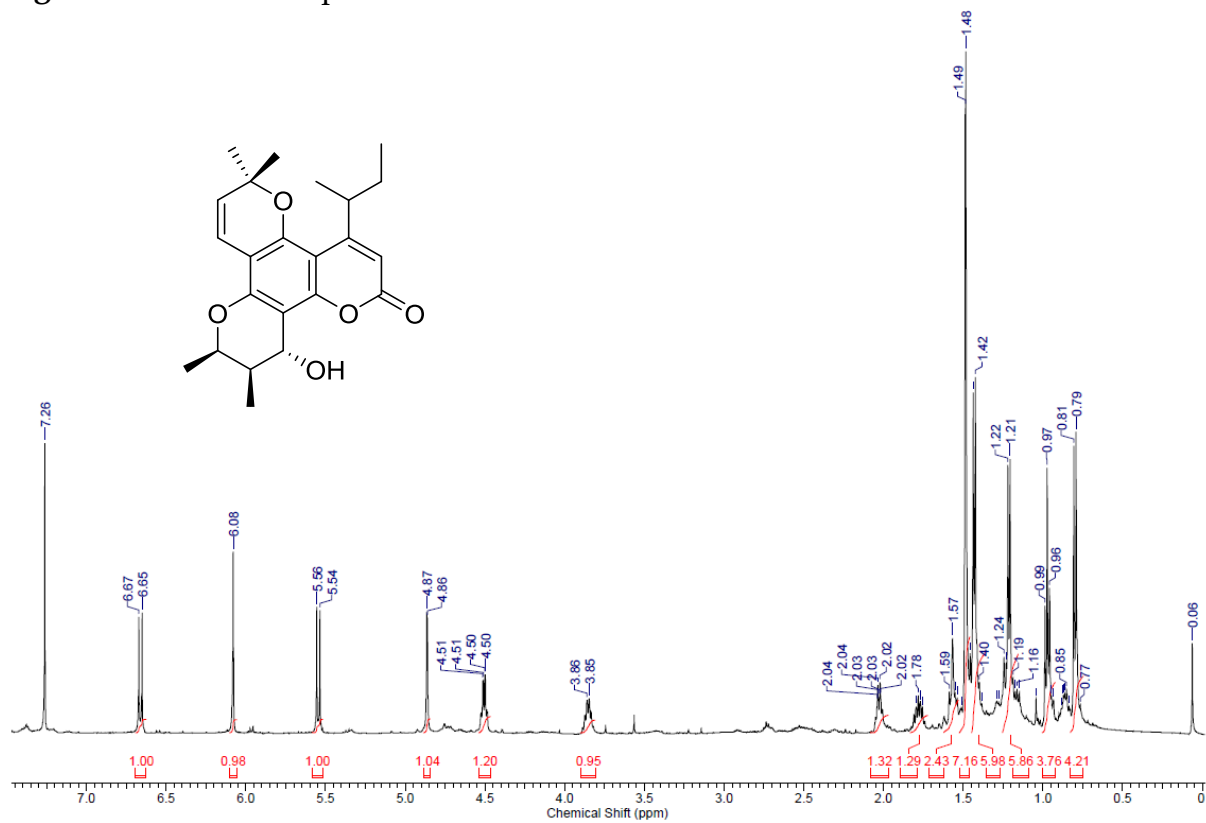


Figure S12. $^1\text{H-NMR}$ spectrum of Fraction D

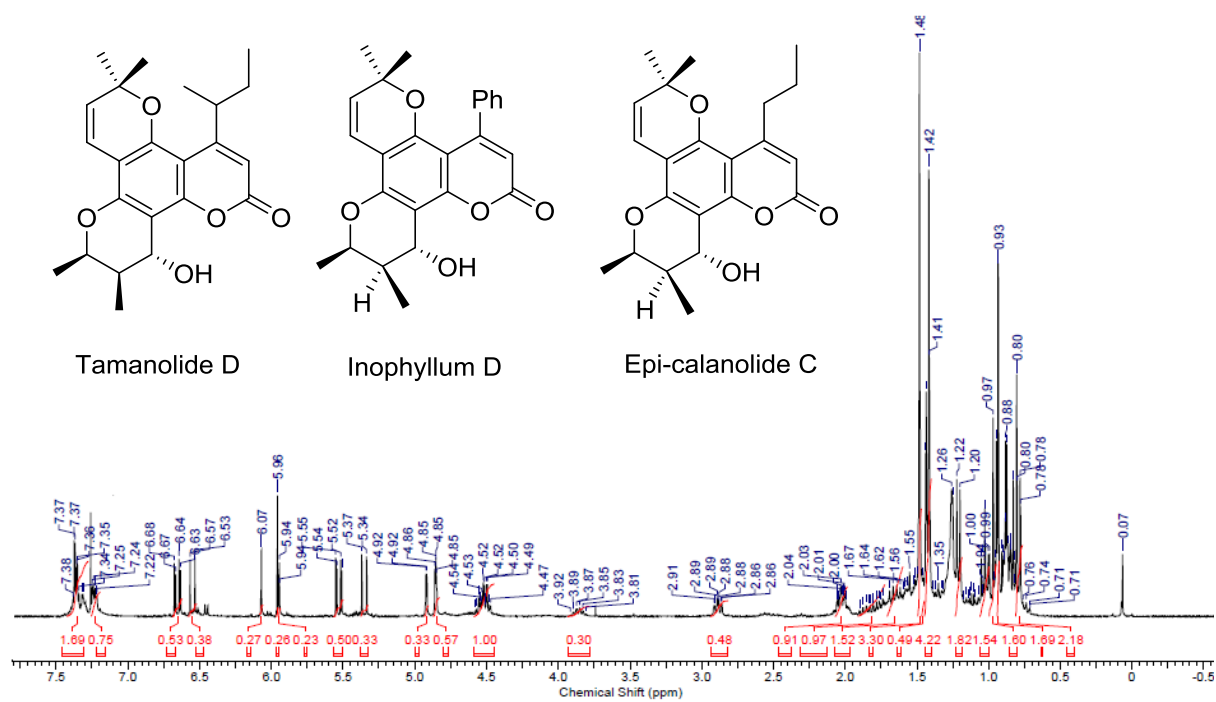
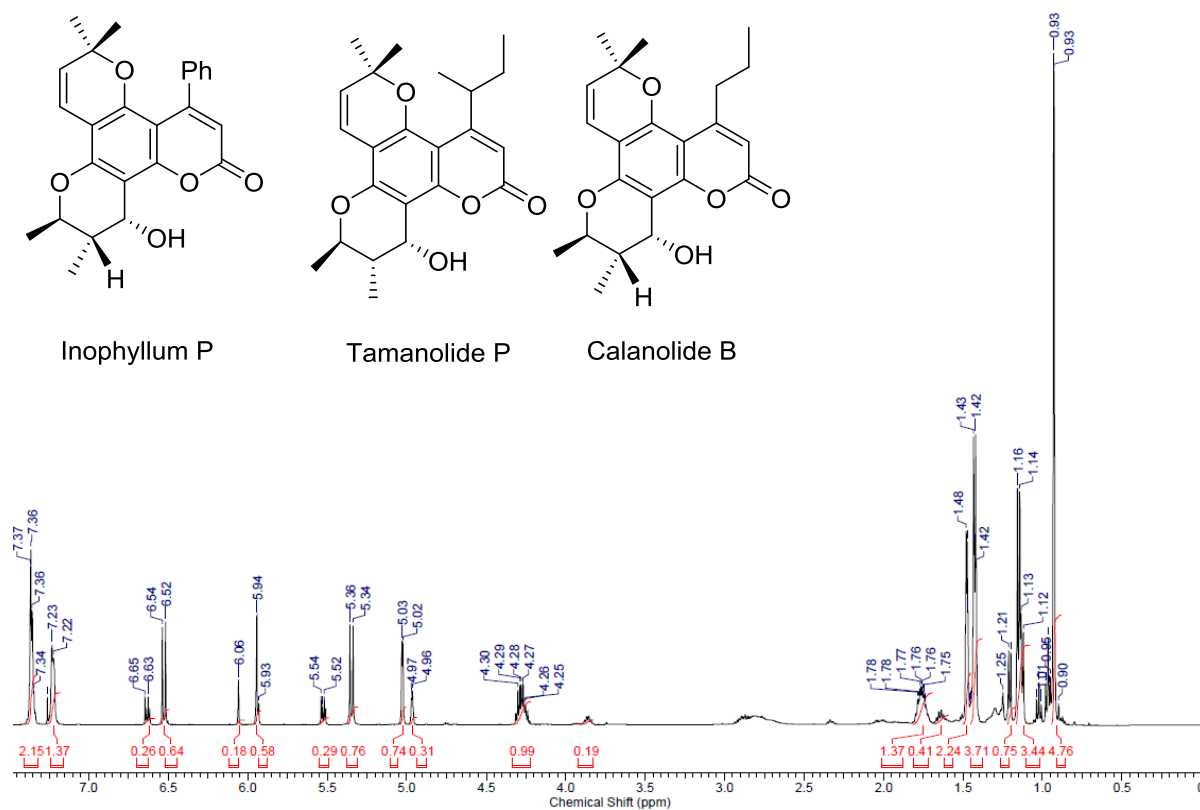


Figure S13. ¹H-NMR spectrum of Fraction P



2. ¹³C-NMR Spectra of some Isolated Phytoconstituents of Tamanu Resins

Figure S14. ¹³C DEPT 135-NMR spectrum of inocalophyllin B

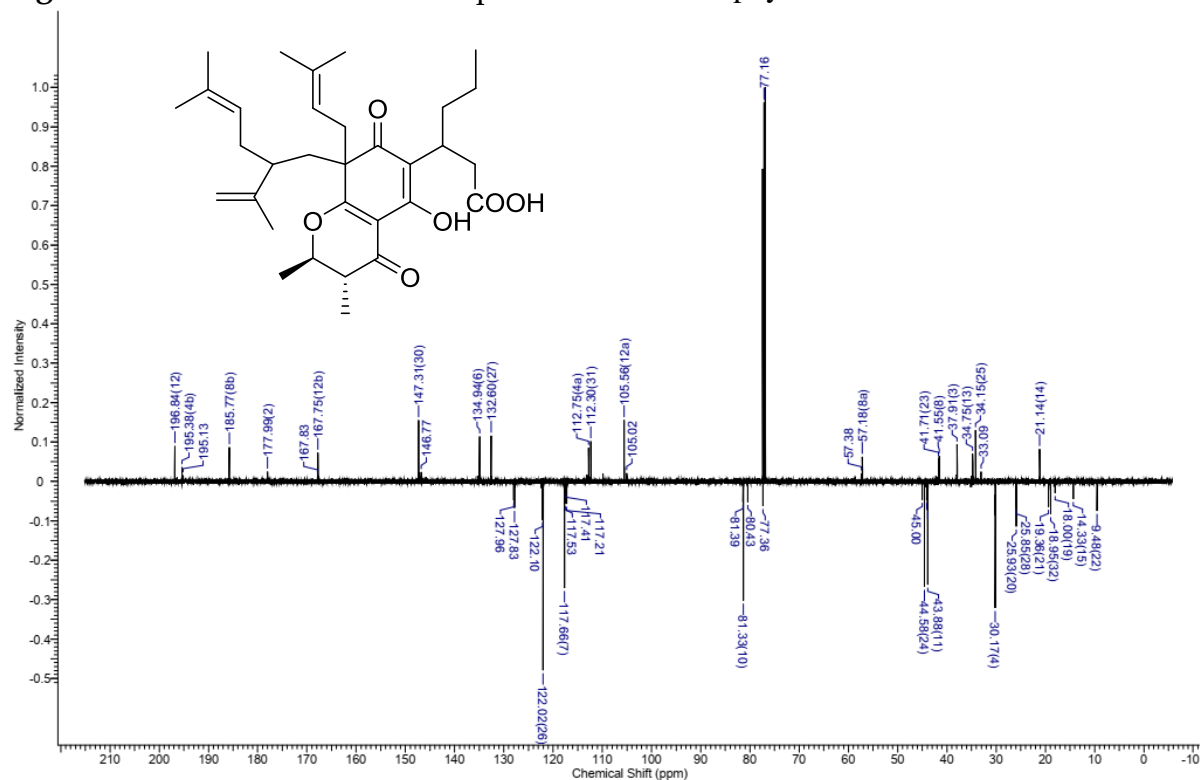


Figure S15: ^{13}C DEPT 135-NMR spectrum of calanolide A

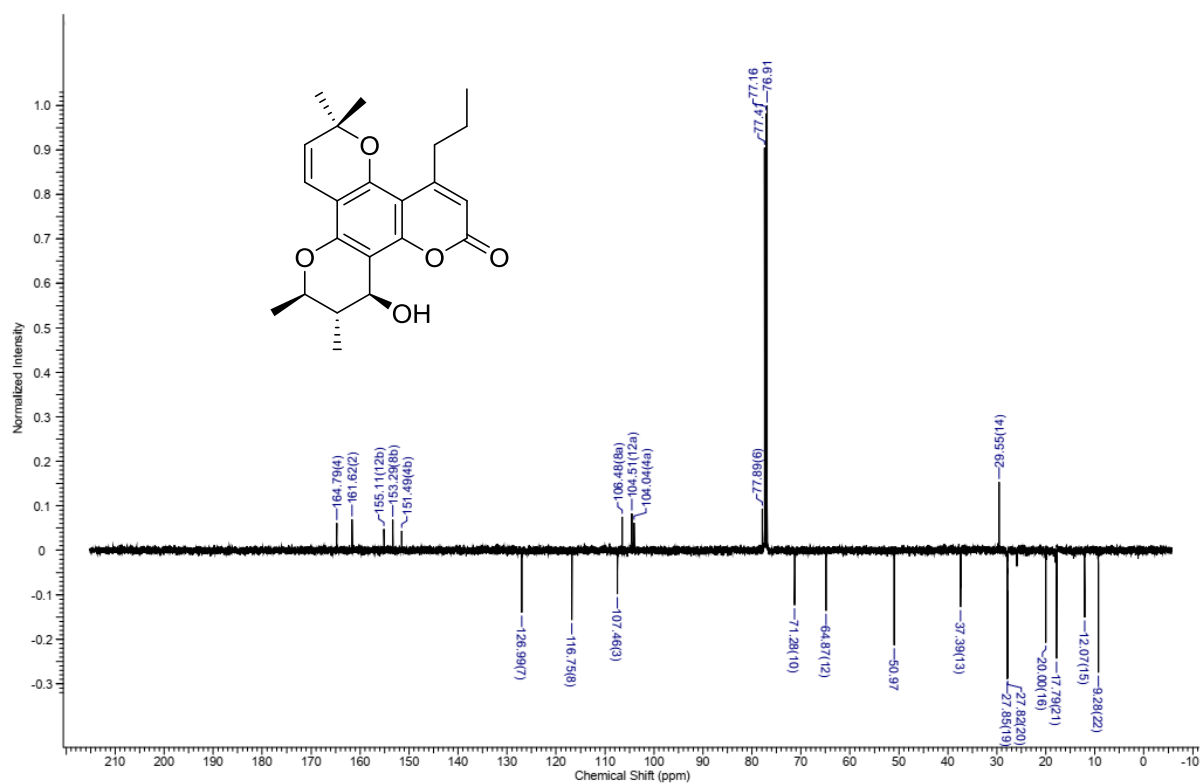


Figure S16: ^{13}C DEPT 135-NMR spectrum of calanolide GUT 70

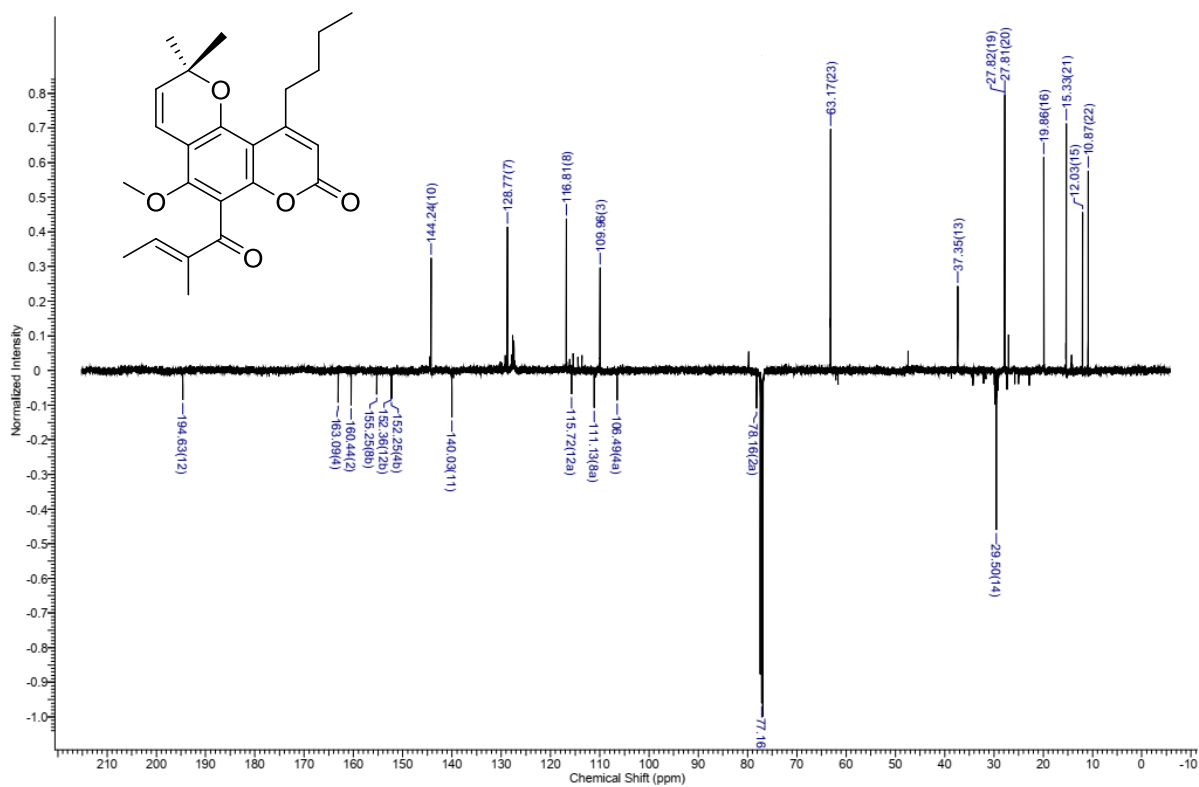
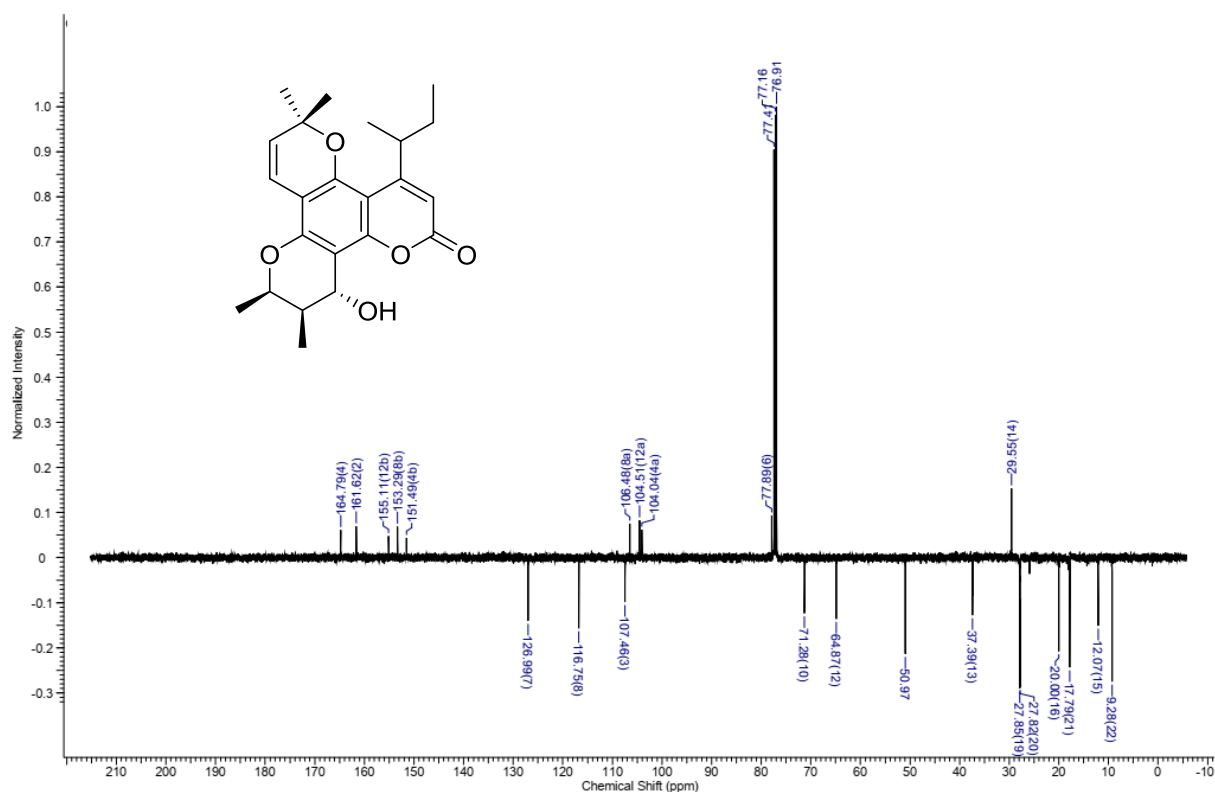


Figure S17: ^{13}C DEPT 135-NMR spectrum of tamanolide D



3. MS Analysis of Isolated Phytoconstituents of Tamanu Resins

The electron spray ionization mass spectra (ESI-MS) were recorded with a 3200 QTRAP (Applied Biosystems SCIEX) mass spectrometer in a positive ion mode to produce $[\text{M} + \text{H}]^+$ ions (Spectropole, Aix Marseille Université, Marseille, France).

Incalophyllin B: ESI-MS (m/z) 527.34 corresponding to $[\text{C}_{32}\text{H}_{46}\text{O}_6 + \text{H}]^+$

Inophyllum C: ESI-MS (m/z) 403.15 corresponding to $[\text{C}_{25}\text{H}_{22}\text{O}_5 + \text{H}]^+$

Inophyllum E: ESI-MS (m/z) 403.15 corresponding to $[\text{C}_{25}\text{H}_{22}\text{O}_5 + \text{H}]^+$

Inophyllum P: ESI-MS (m/z) 405.17 corresponding to $[\text{C}_{25}\text{H}_{24}\text{O}_5 + \text{H}]^+$

Calophyllolide: ESI-MS (m/z) 417.17 corresponding to $[\text{C}_{26}\text{H}_{24}\text{O}_5 + \text{H}]^+$

12-oxocalanolide A: ESI-MS (m/z) 369.17 corresponding to $[\text{C}_{22}\text{H}_{24}\text{O}_5 + \text{H}]^+$

Calanolide A: ESI-MS (m/z) 371.19 corresponding to $[\text{C}_{22}\text{H}_{26}\text{O}_5 + \text{H}]^+$

Calanolide D: ESI-MS (m/z) 369.17 corresponding to $[\text{C}_{22}\text{H}_{24}\text{O}_5 + \text{H}]^+$

Calanolide GUT 70: ESI-MS (m/z) 383.19 corresponding to $[\text{C}_{23}\text{H}_{26}\text{O}_5 + \text{H}]^+$

Tamanolide: ESI-MS (m/z) 397.19 corresponding to $[\text{C}_{24}\text{H}_{28}\text{O}_5 + \text{H}]^+$

Tamanolide D: ESI-MS (m/z) 385.20 corresponding to $[\text{C}_{23}\text{H}_{28}\text{O}_5 + \text{H}]^+$

4. EPR Spin Trapping

Scheme S1. Formation of HO• and (O₂•⁻/HOO•) DEPMPO spin adducts

The main EPR coupling nuclei of the detected spin adducts are displayed in red. Stereochemistry is shown for the major *trans*-DEPMPO-OOH adduct.

