

Supplementary Materials for
Attenuated Structural Transformation of Aconitine During Sand Frying
Process and Anti-arrhythmic Effect of Its Converted Products

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1.1 Structure elucidation of pyroaconitine (compound 1)

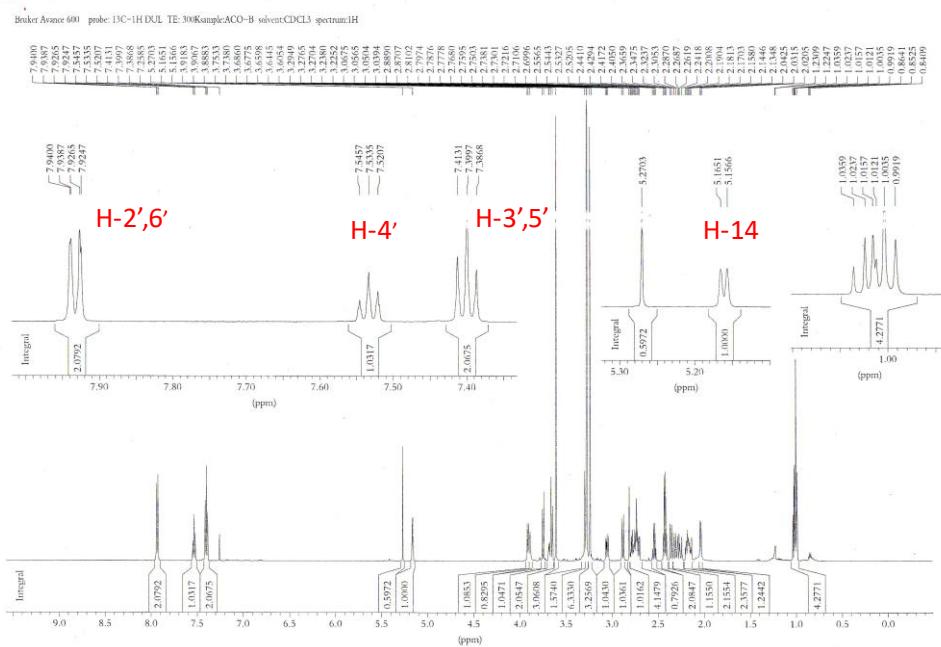
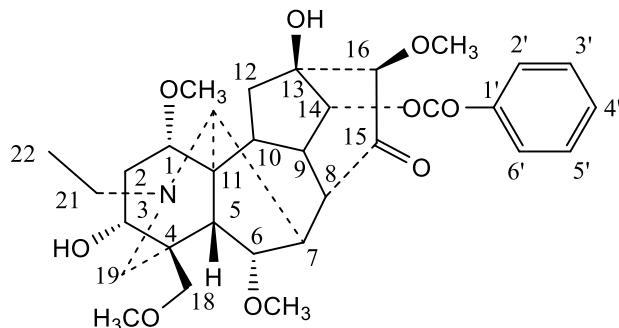


Figure S1. ^1H NMR of pyroaconitine

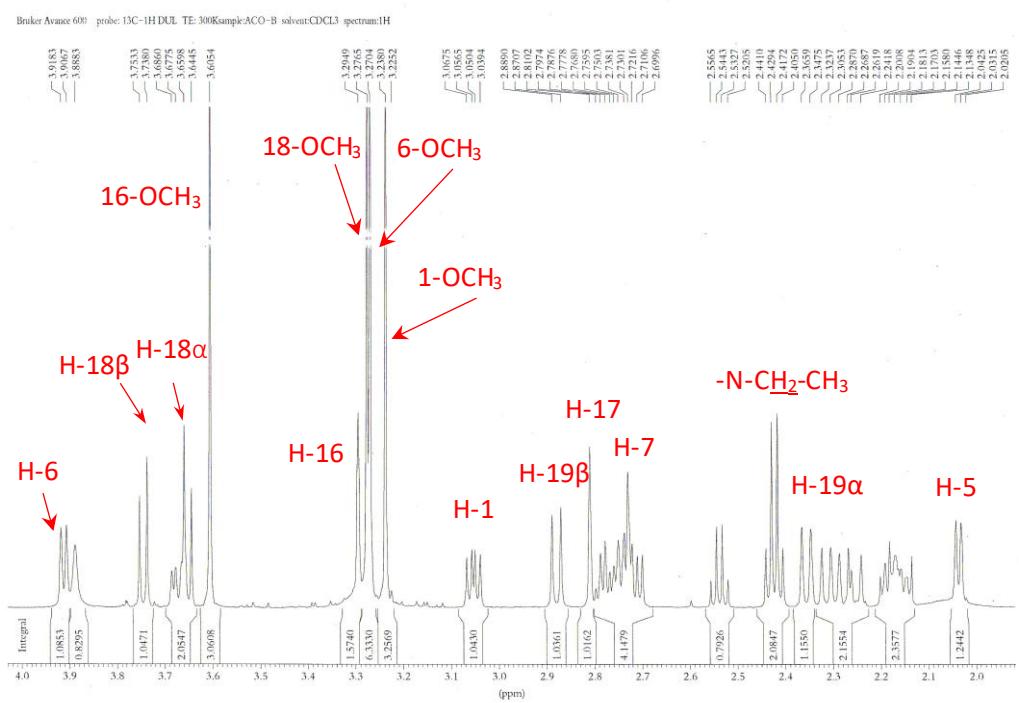


Figure S2. ¹H NMR of pyroaconitine (Detail)

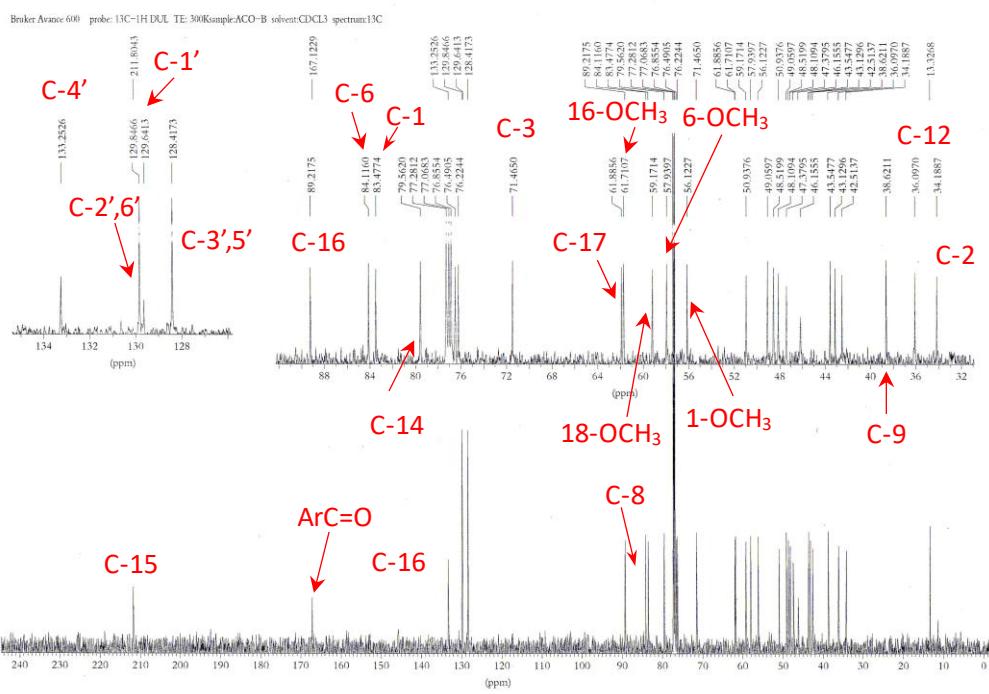


Figure S3. ^{13}C NMR of pyroaconitine

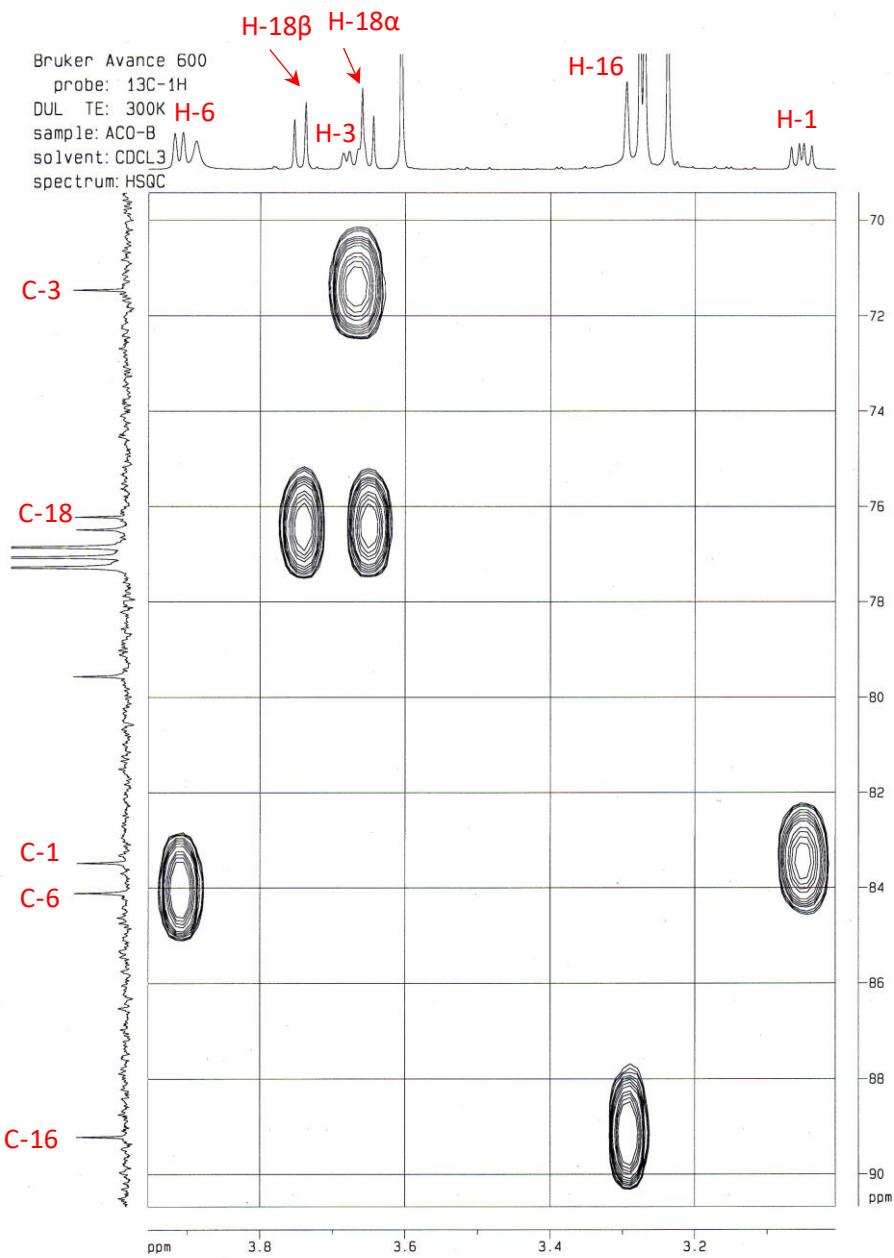


Figure S4. Key HSQC correlations of pyroaconitine (Detail 1)

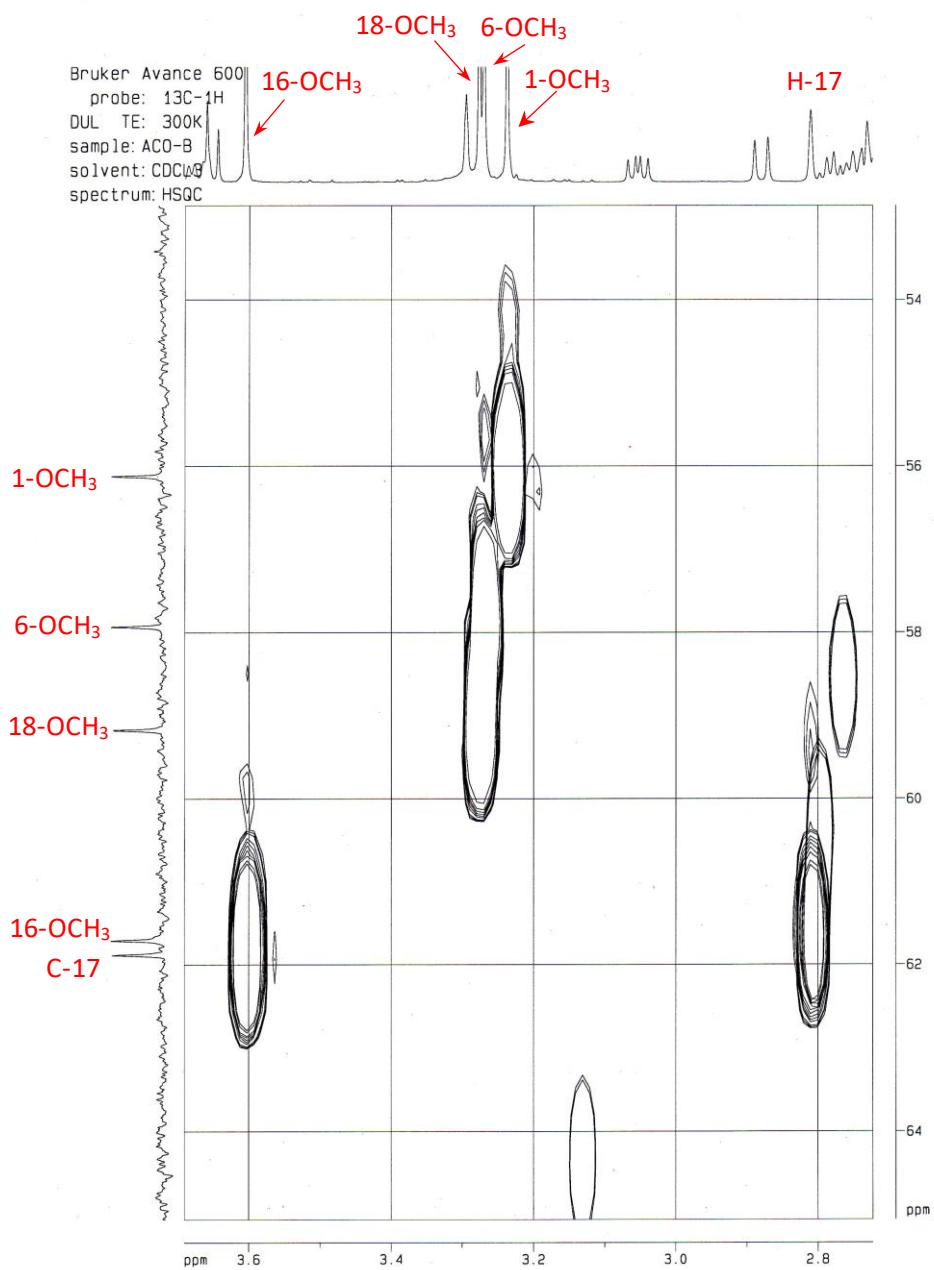


Figure S5. Key HSQC correlations of pyroaconitine (Detail 2)

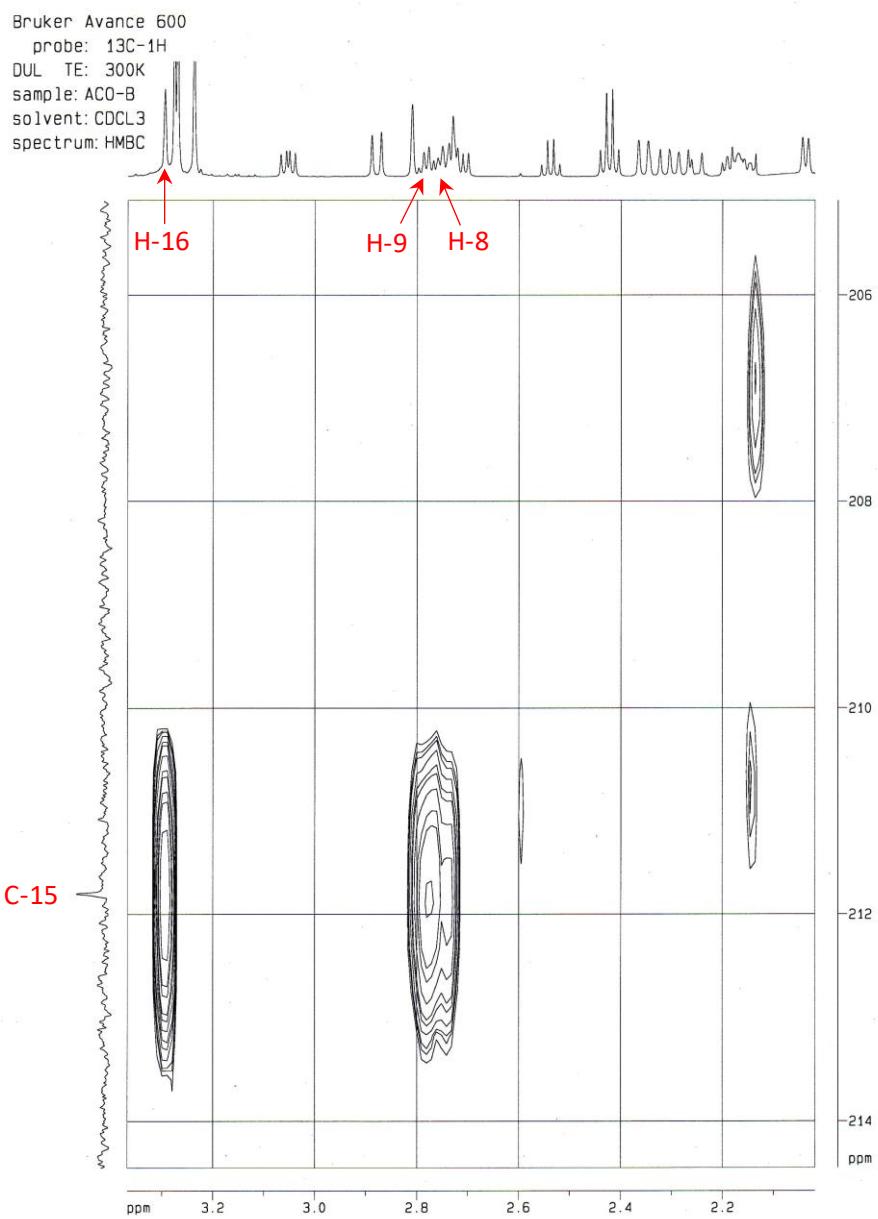


Figure S6. Key HMBC correlations of pyroaconitine (Detail 1)

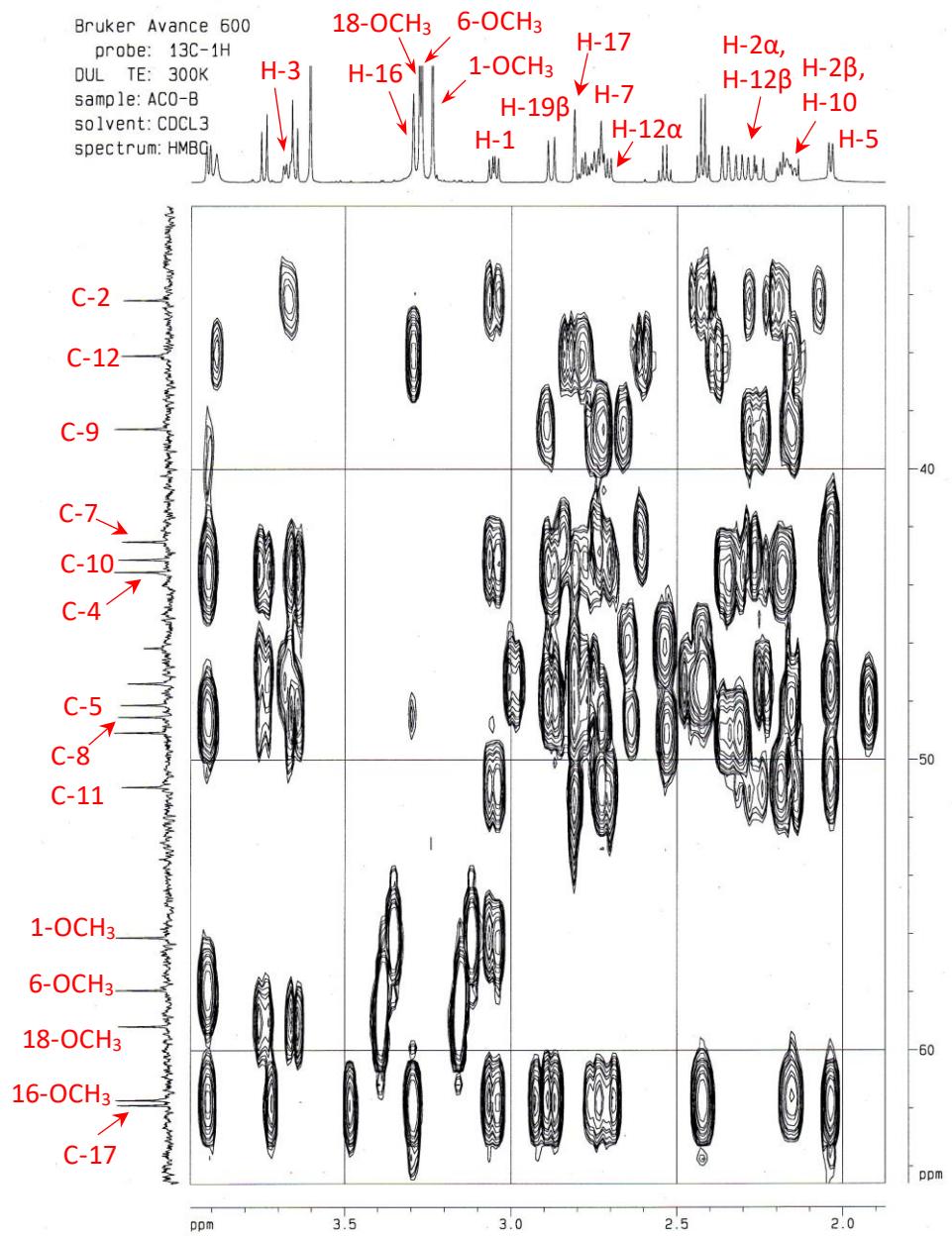


Figure S7. Key HMBC correlations of pyroaconitine (Detail 2)

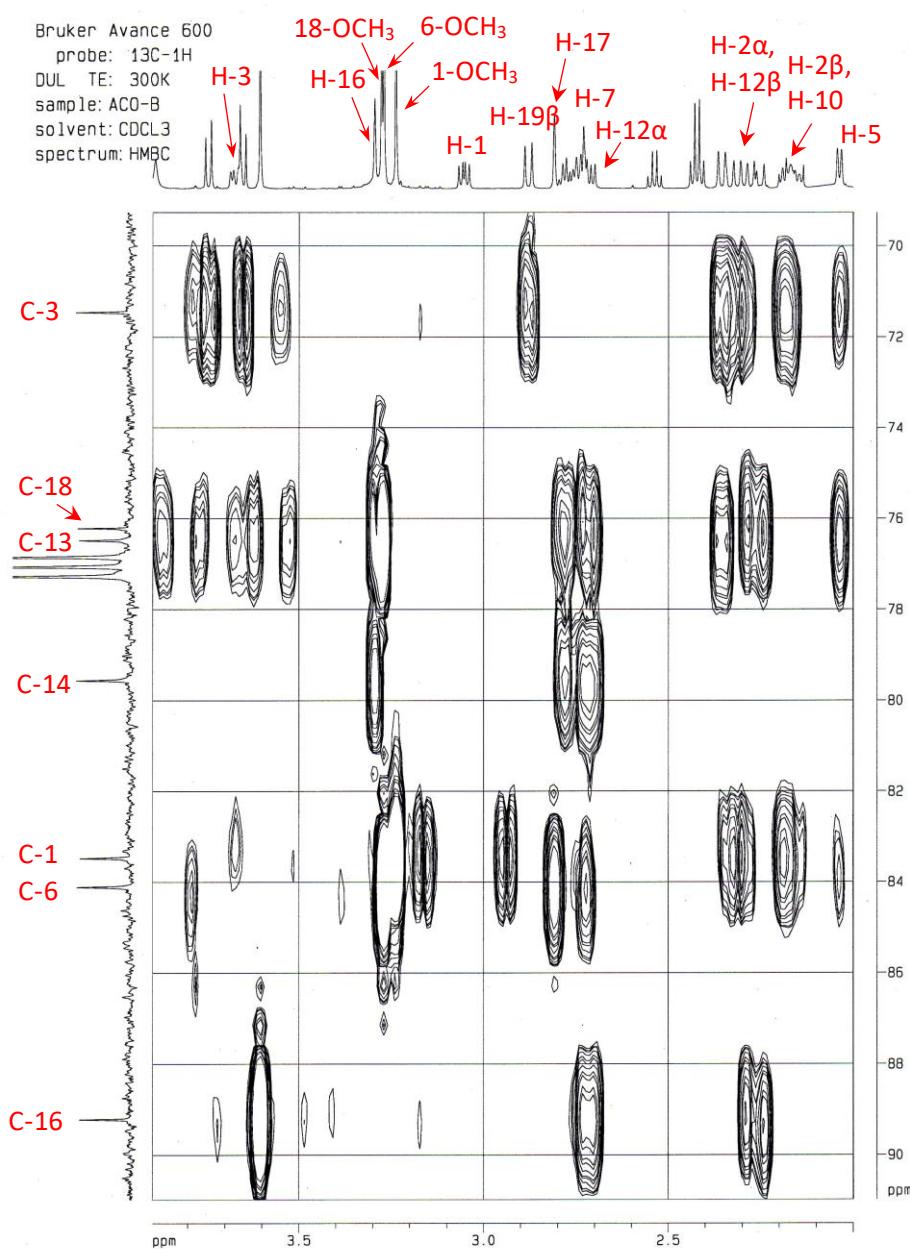


Figure S8. Key HMBC correlations of pyroaconitine (Detail 3)

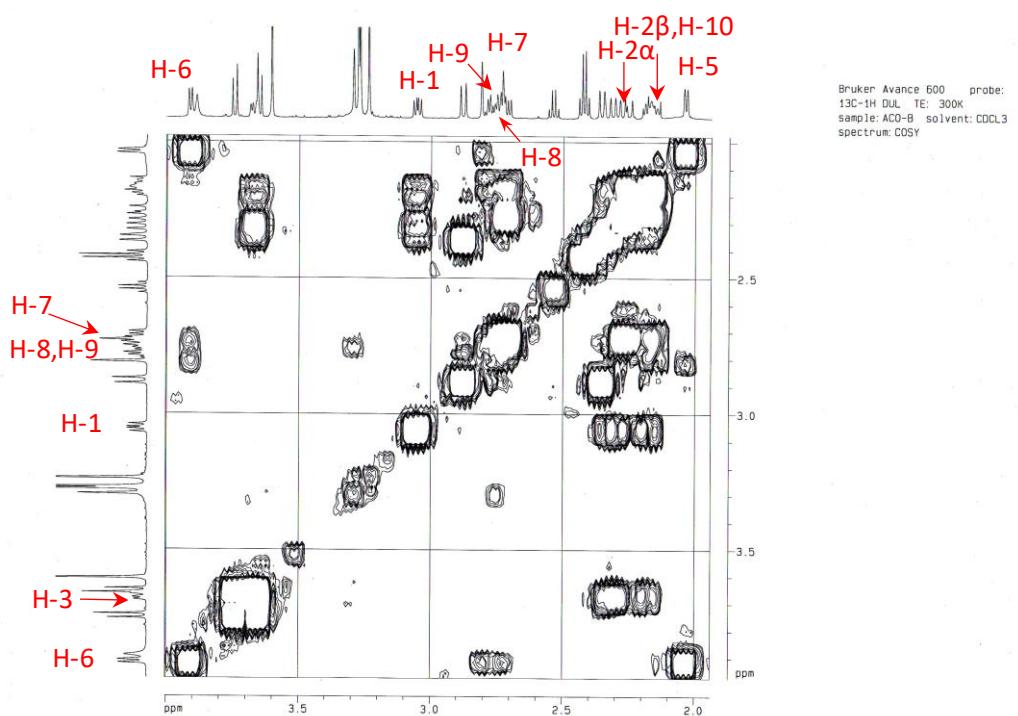


Figure S9. Key ¹H-¹H COSY correlations of pyroaconitine (Detail 1)

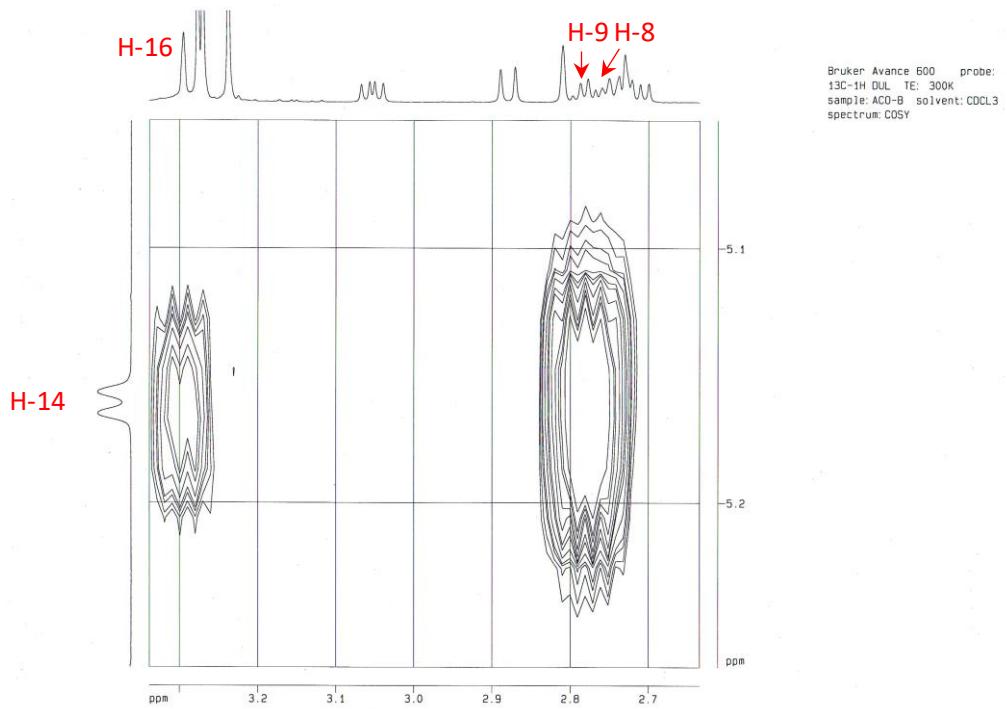


Figure S10. Key ^1H - ^1H COSY correlations of pyroaconitine (Detail 2)

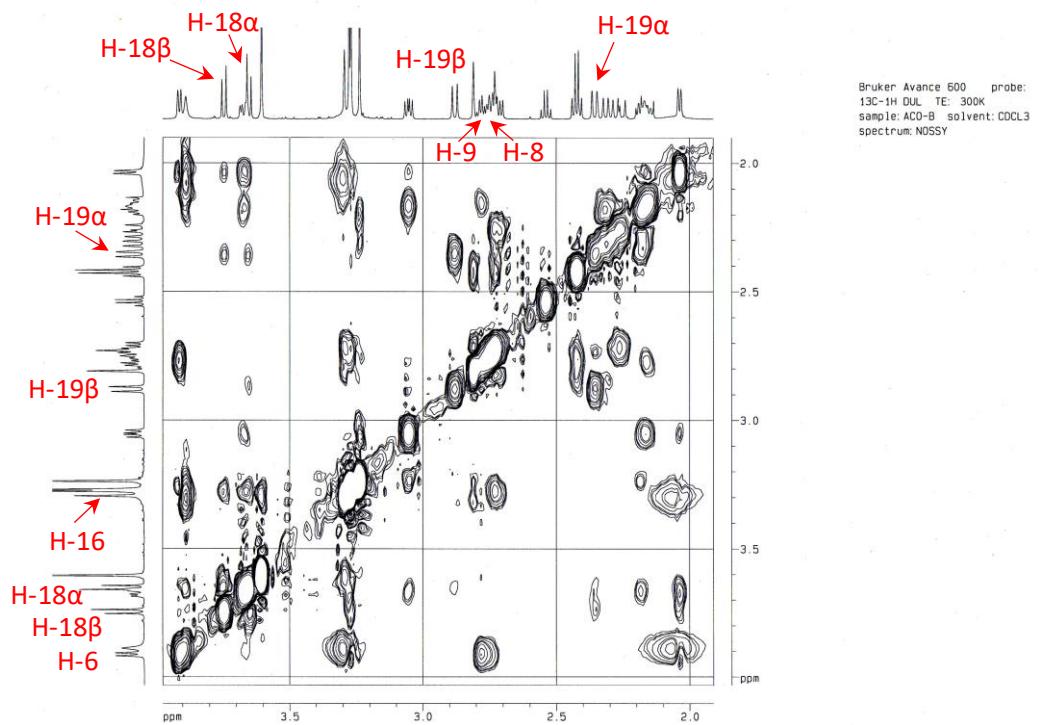


Figure S11. Key NOESY correlations of pyroaconitine (Detail 1)

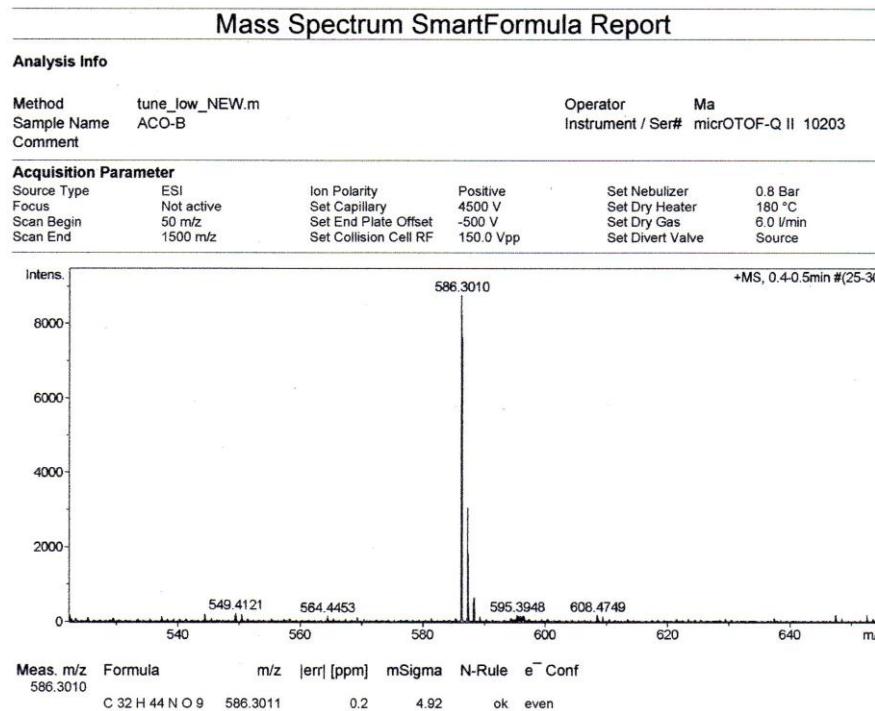


Figure S12. High-resolution ESI-MS of pyroaconitine

1.2 Structure elucidation of 16-epi-pyroaconitine (compound 2)

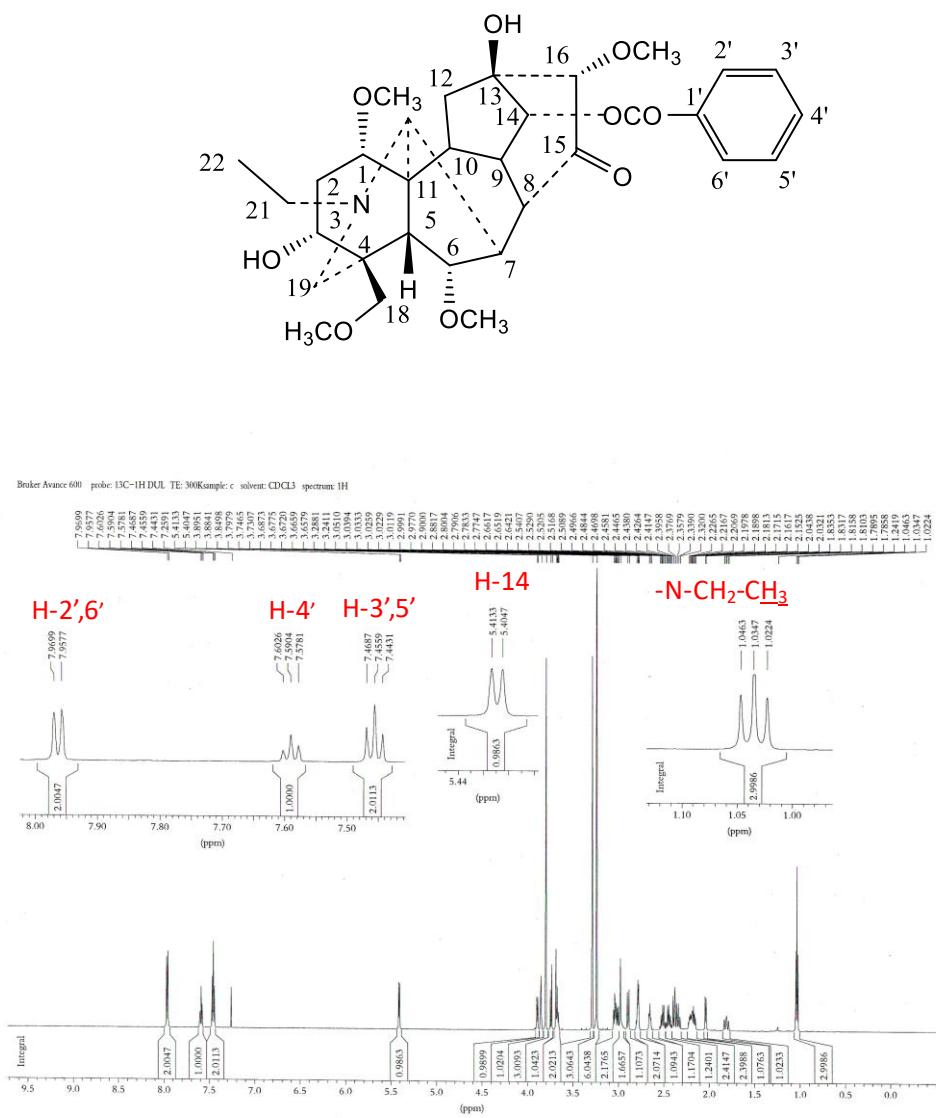


Figure S13. ¹H NMR of 16-epi-pyroaconitine

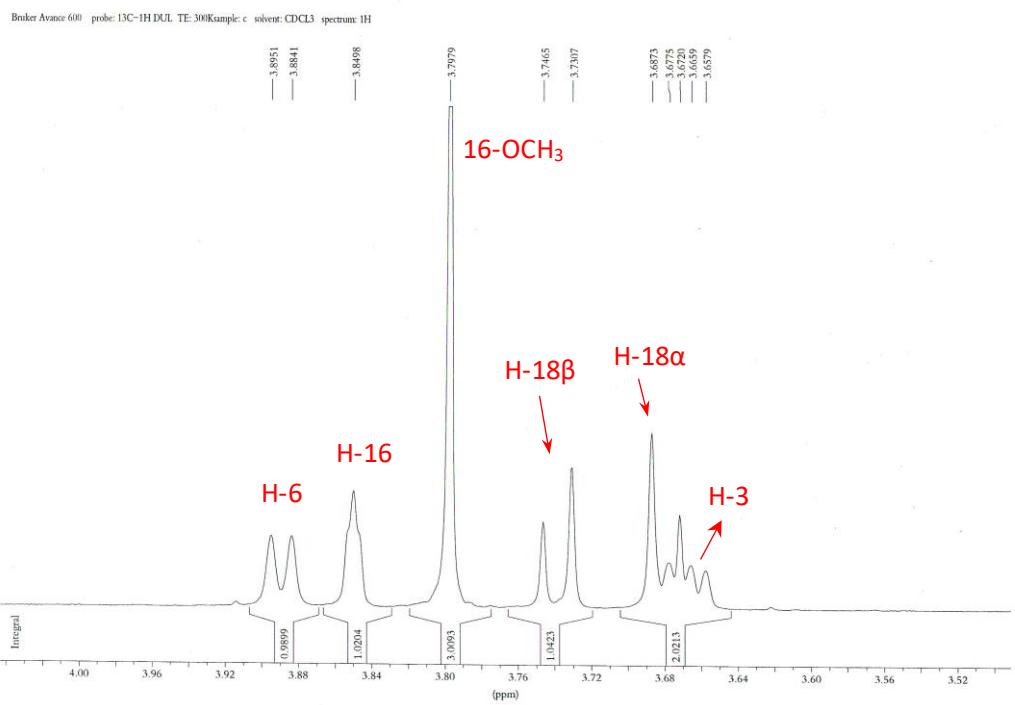


Figure S14. ¹H NMR of 16-epi-pyroaconitine (Detail 1)

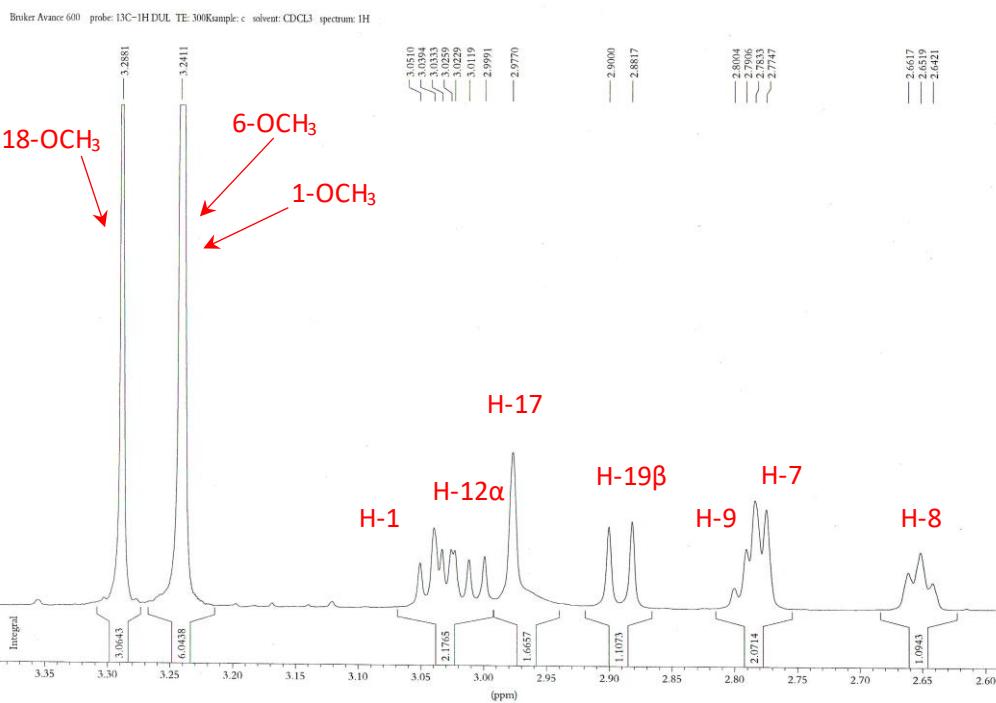


Figure S15. ¹H NMR of 16-epi-pyroaconitine (Detail 2)

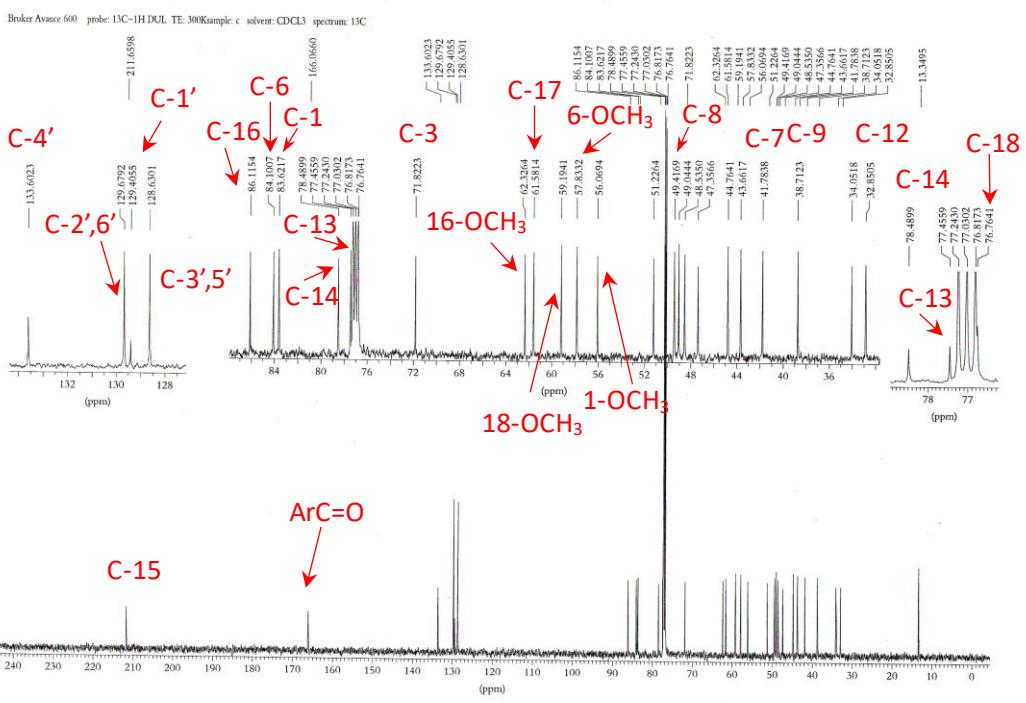


Figure S16. ¹³C NMR of 16-epi-pyroaconitine

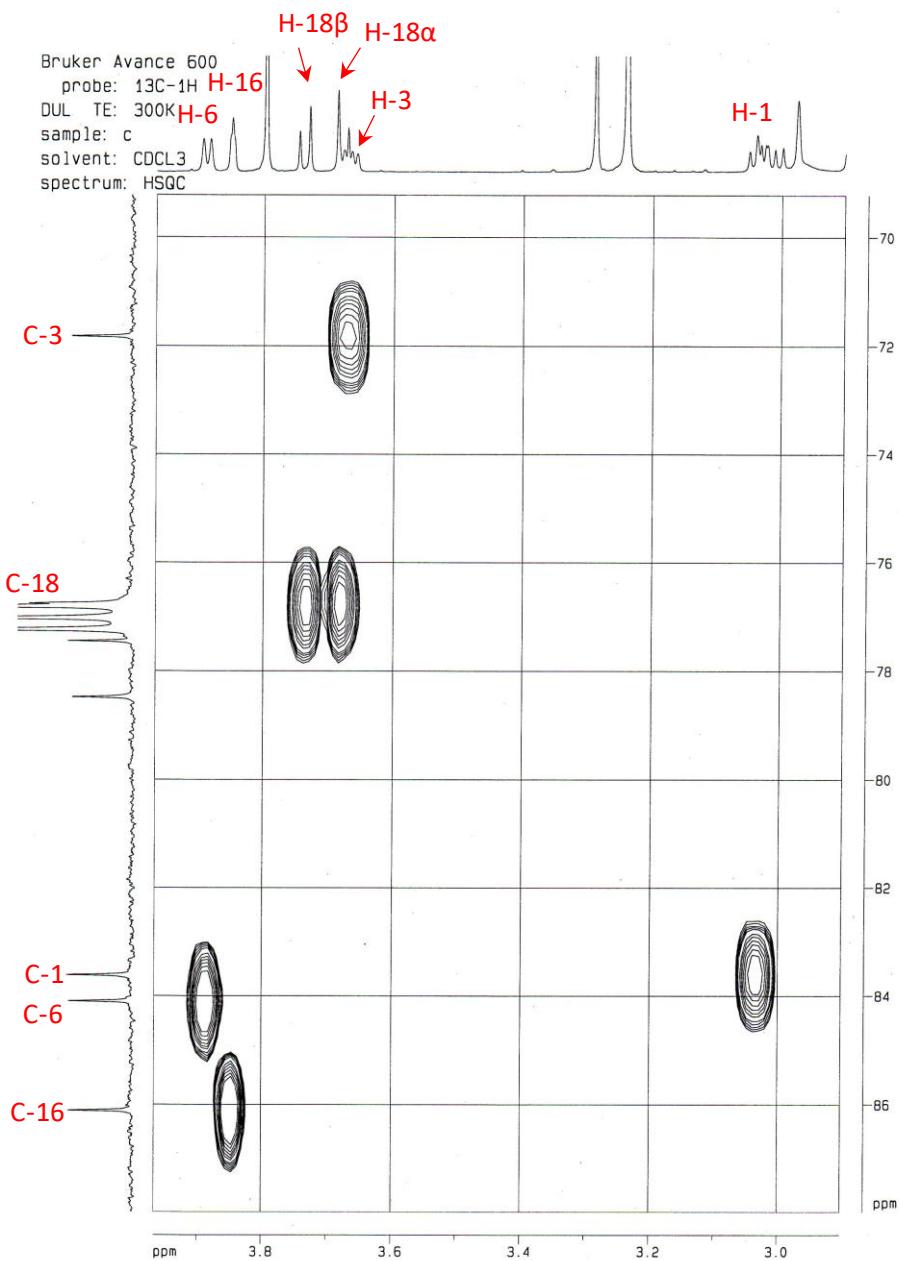


Figure S17. Key HSQC correlations of 16-epi-pyroaconitine (Detail 1)

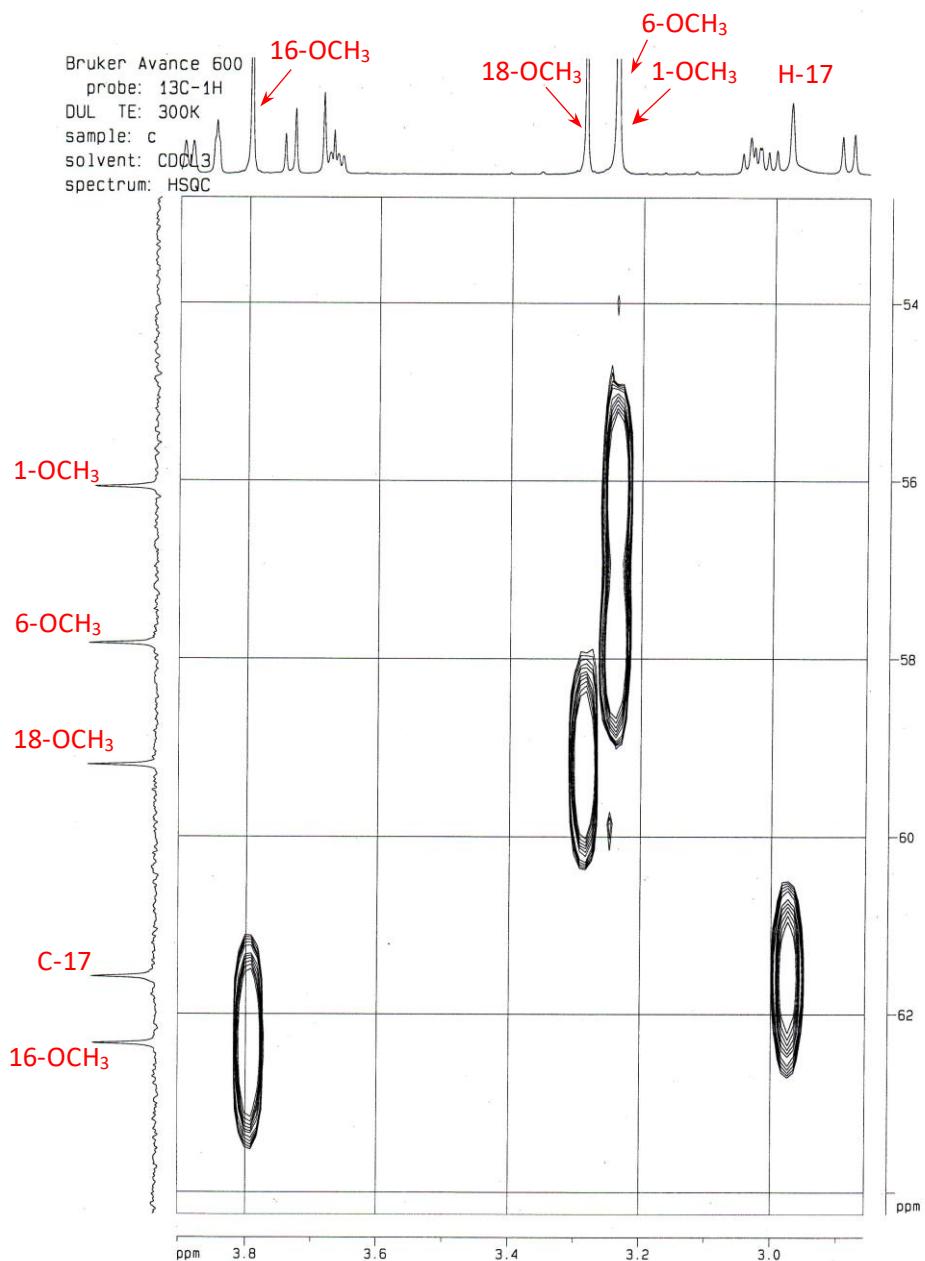


Figure S18. Key HSQC correlations of 16-epi-pyroaconitine (Detail 2)

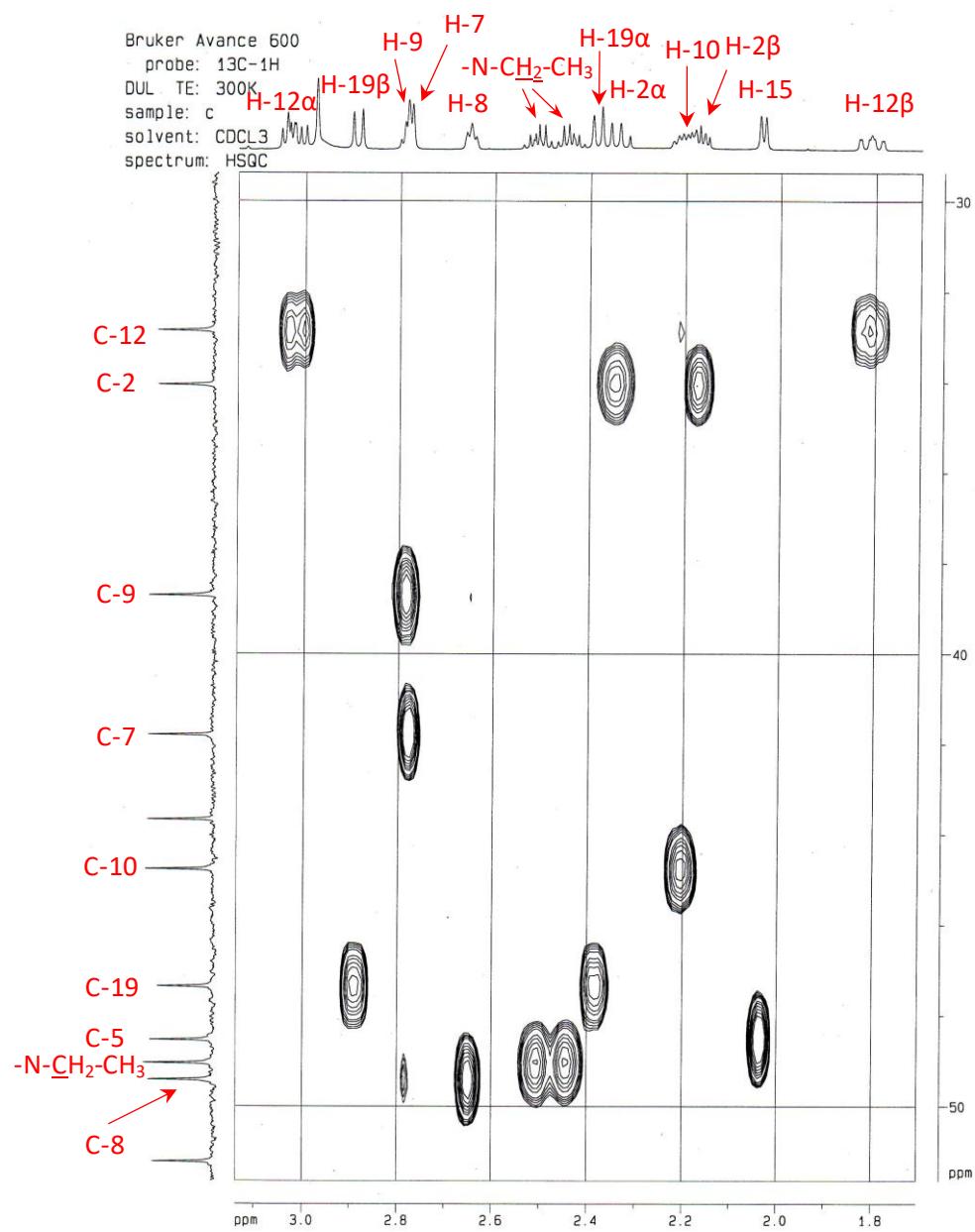


Figure S19. Key HSQC correlations of 16-epi-pyroaconitine (Detail 3)

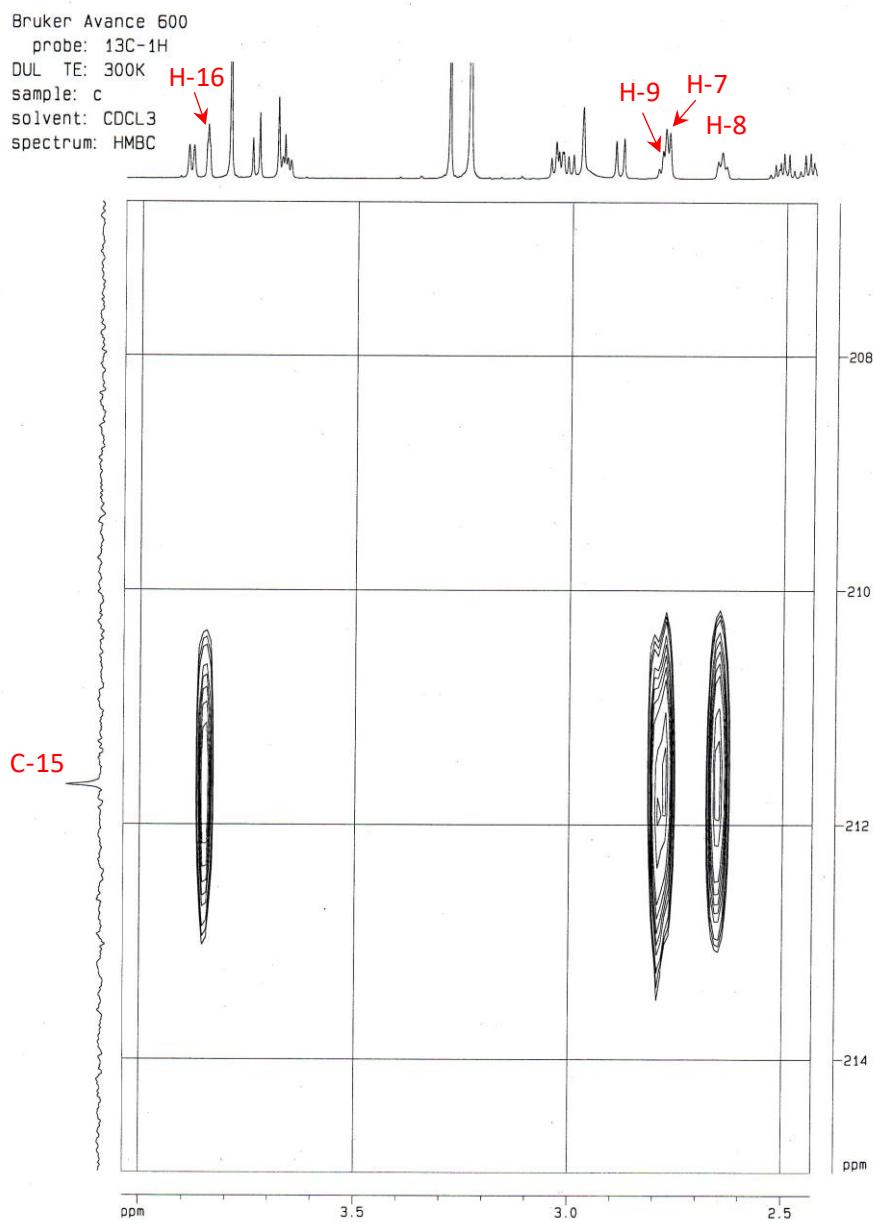


Figure S20. Key HMBC correlations of 16-epi-pyroaconitine (Detail 1)

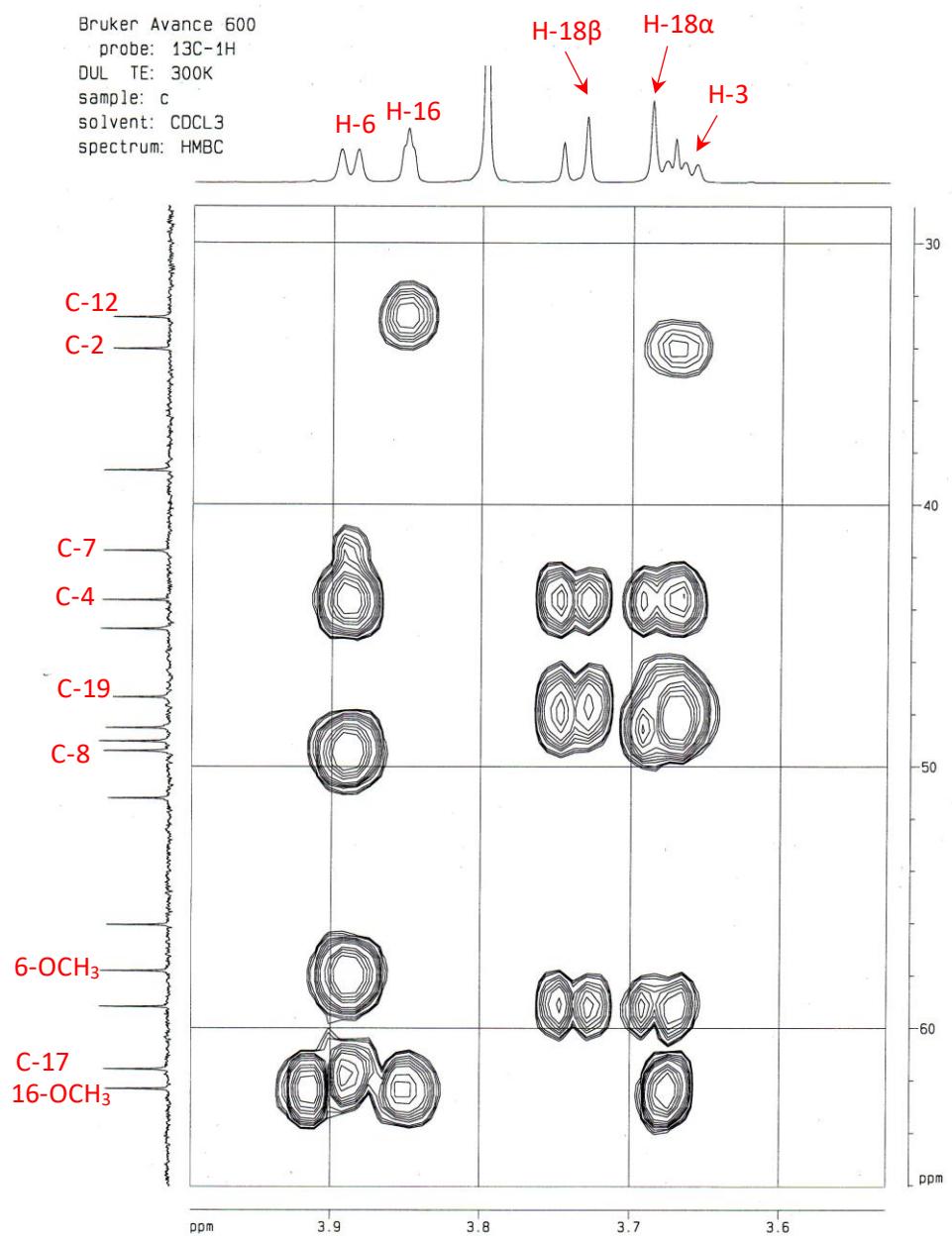


Figure S21. Key HMBC correlations of 16-epi-pyroaconitine (Detail 2)

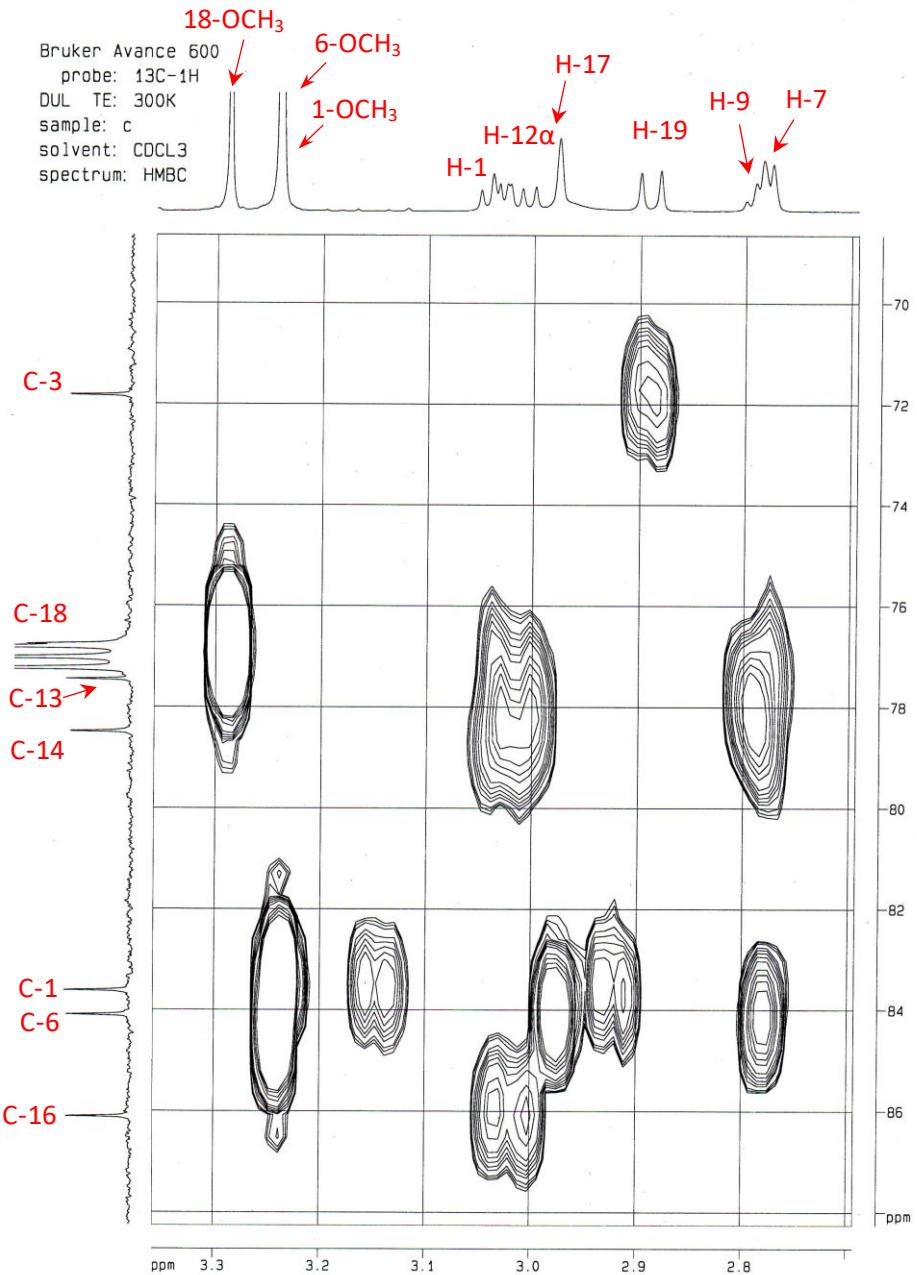


Figure S22. Key HMBC correlations of 16-epi-pyroaconitine (Detail 3)

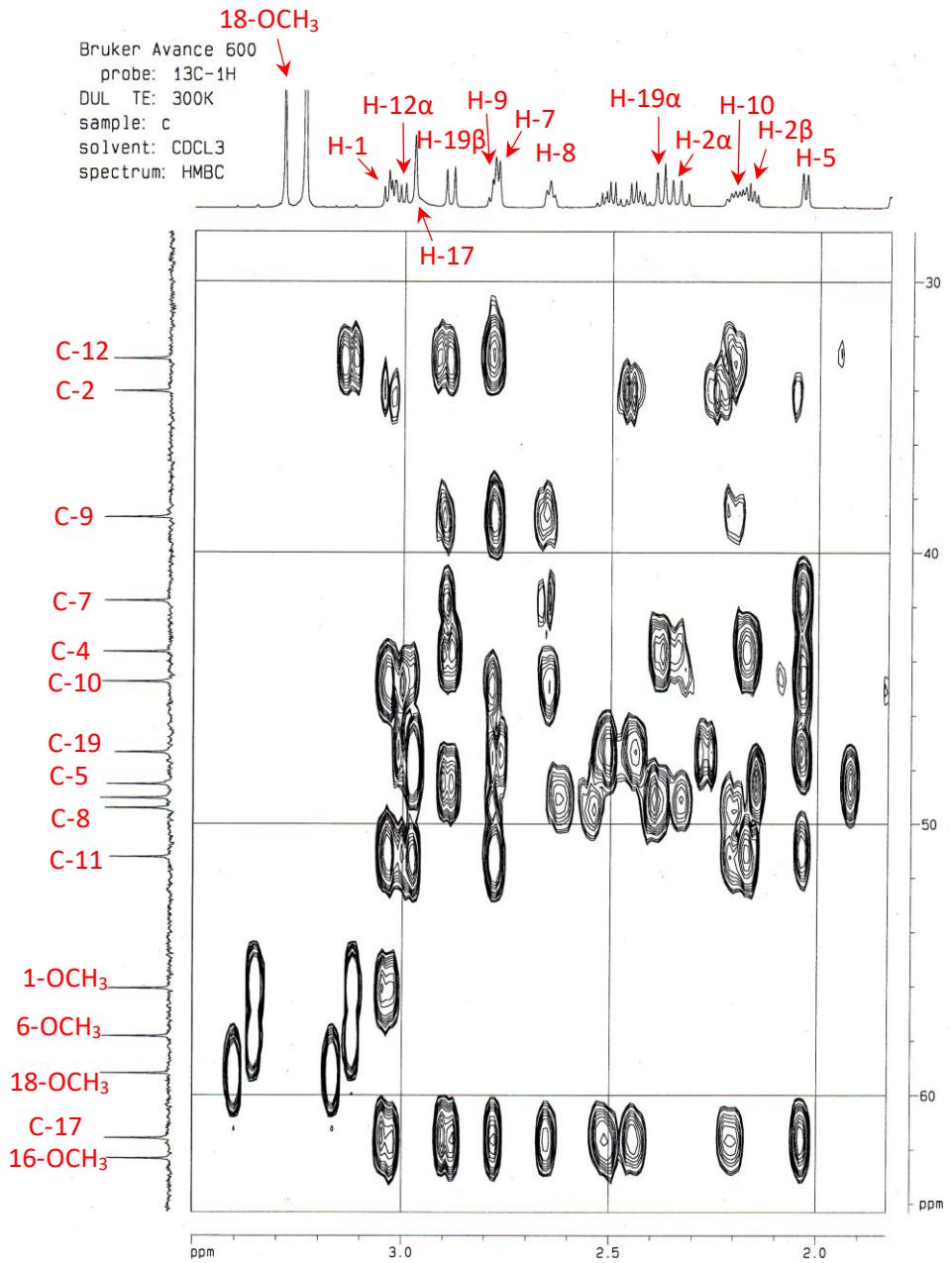


Figure S23. Key HMBC correlations of 16-epi-pyroaconitine (Detail 4)

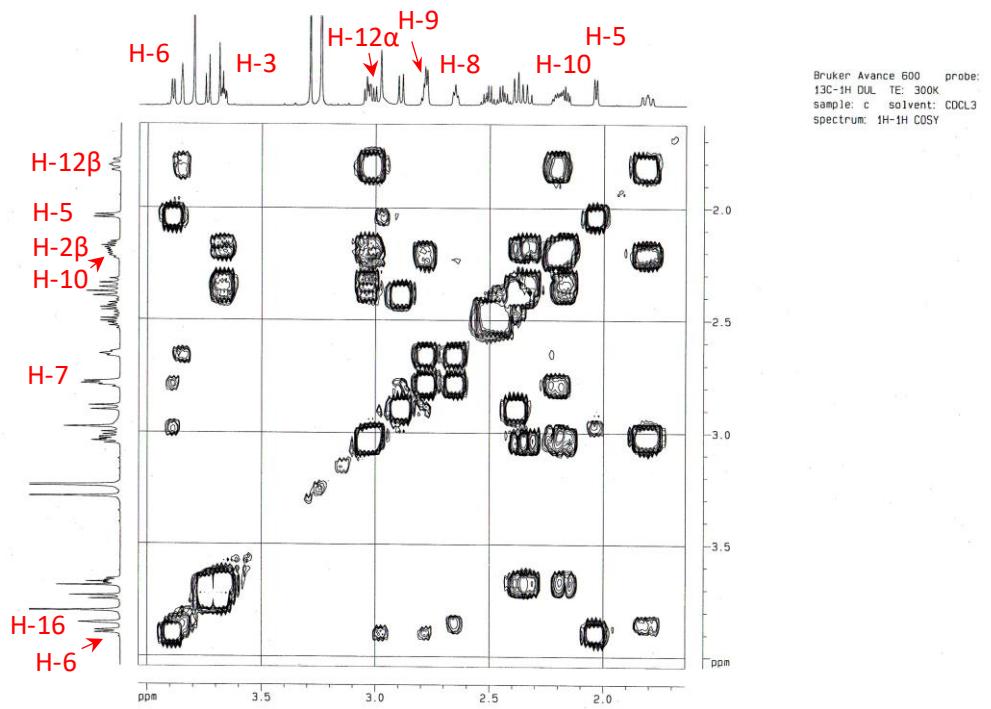


Figure S24. Key ¹H-¹H COSY correlations of 16-epi-pyroaconitine (Detail 1)

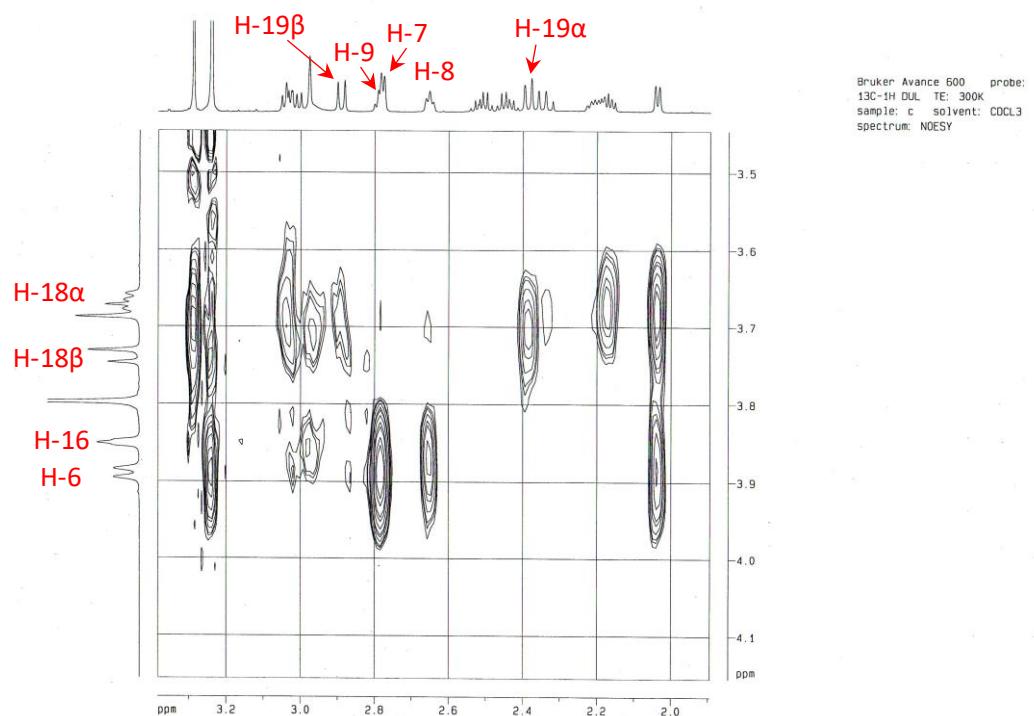


Figure S25. Key NOESY correlations of 16-epi-pyroaconitine (Detail 1)

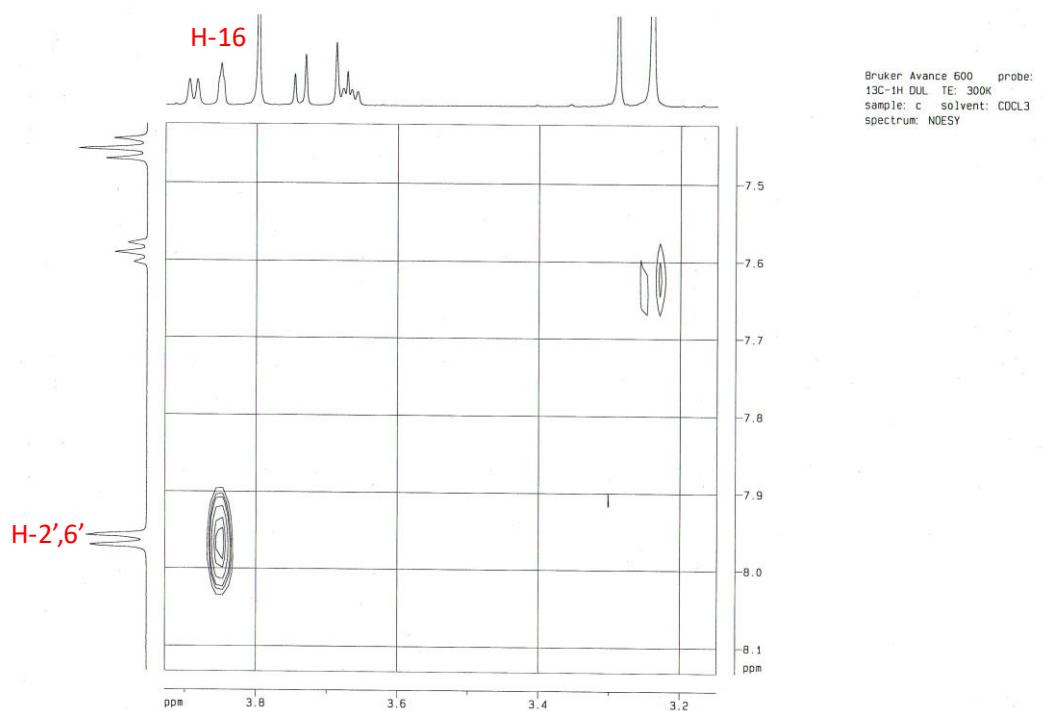


Figure S26. Key NOESY correlations of 16-epi-pyroaconitine (Detail 2)

Mass Spectrum SmartFormula Report

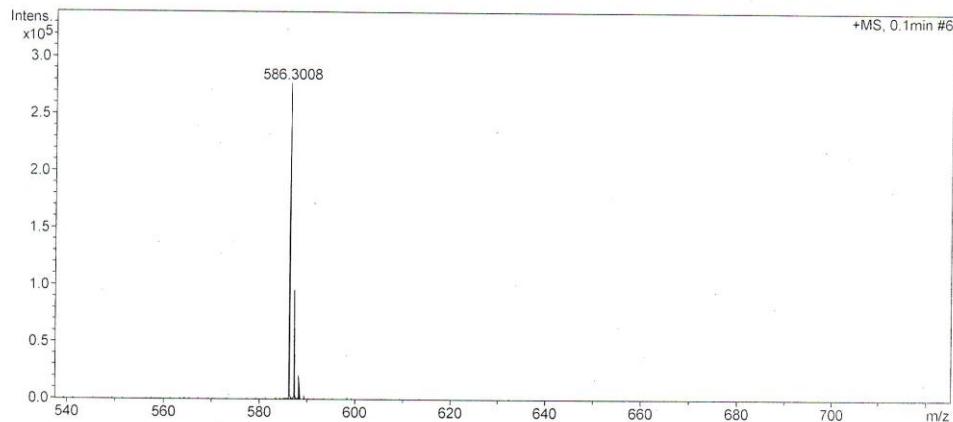
Analysis Info

Analysis Name: D:\Data\USER-2016\WYJ-C.d
 Method: tune_low_NEW.m
 Sample Name: WYJ-C
 Comment:

Acquisition Date: 5/31/2016 4:23:53 PM
 Operator: Ma
 Instrument / Ser#: micrOTOF-Q II 10203

Acquisition Parameter

Source Type	ESI	Ion Polarity	Positive	Set Nebulizer	0.3 Bar
Focus	Not active	Set Capillary	4500 V	Set Dry Heater	180 °C
Scan Begin	50 m/z	Set End Plate Offset	-500 V	Set Dry Gas	4.0 l/min
Scan End	1500 m/z	Set Collision Cell RF	150.0 Vpp	Set Divert Valve	Source



Meas. m/z	Formula	m/z	err [ppm]	mSigma	N-Rule	e ⁻ Conf
586.3008						
C 32 H 44 N O 9	586.3011	0.5	4.62	ok	even	
C 29 H 36 N 11 O 3	586.2997	-1.8	7.69	ok	even	
C 28 H 40 N 7 O 7	586.2984	-4.1	7.83	ok	even	
C 33 H 40 N 5 O 5	586.3024	2.8	17.00	ok	even	

Figure S27. High-resolution ESI-MS of 16-epi-pyroaconitine.

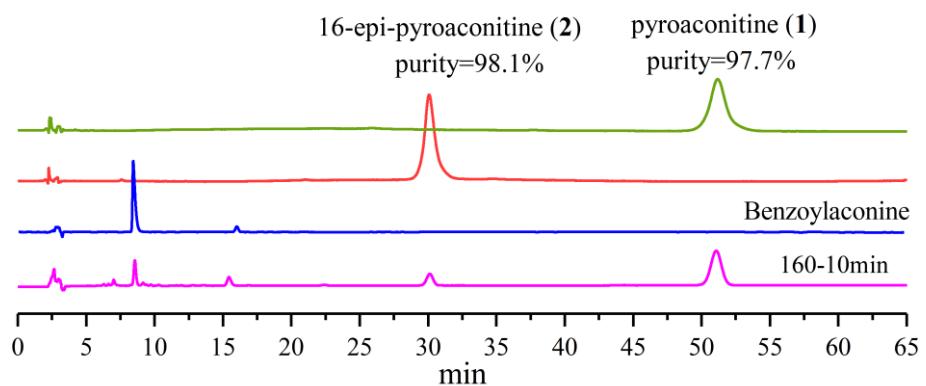


Figure S28. Purity test results of compounds **1** and **2**.