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Antiviral and Anti-inflammatory Meroterpenoids: Stachybonoids A-F from the Crinoid-Derived Fungus Stachybotrys chartarum 952

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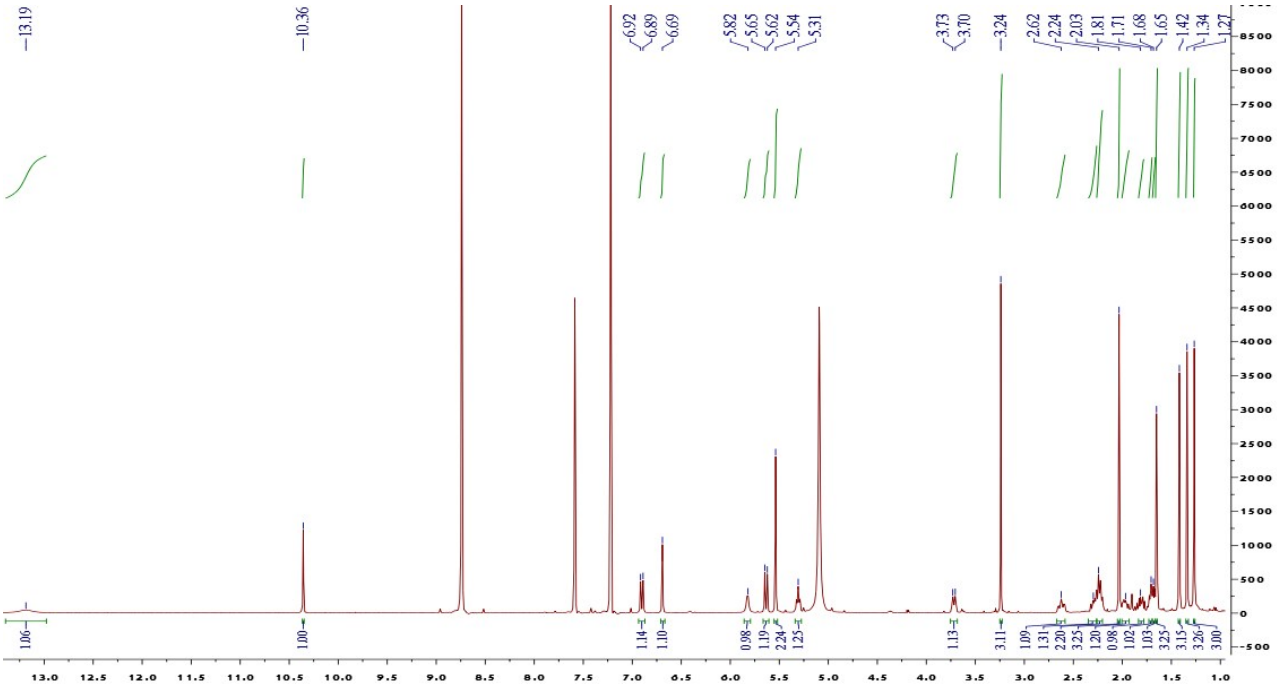


Figure S2. ^{13}C (100 MHz) NMR Spectrum of Stachybonoid A (**1**) in Pyridine-d_5

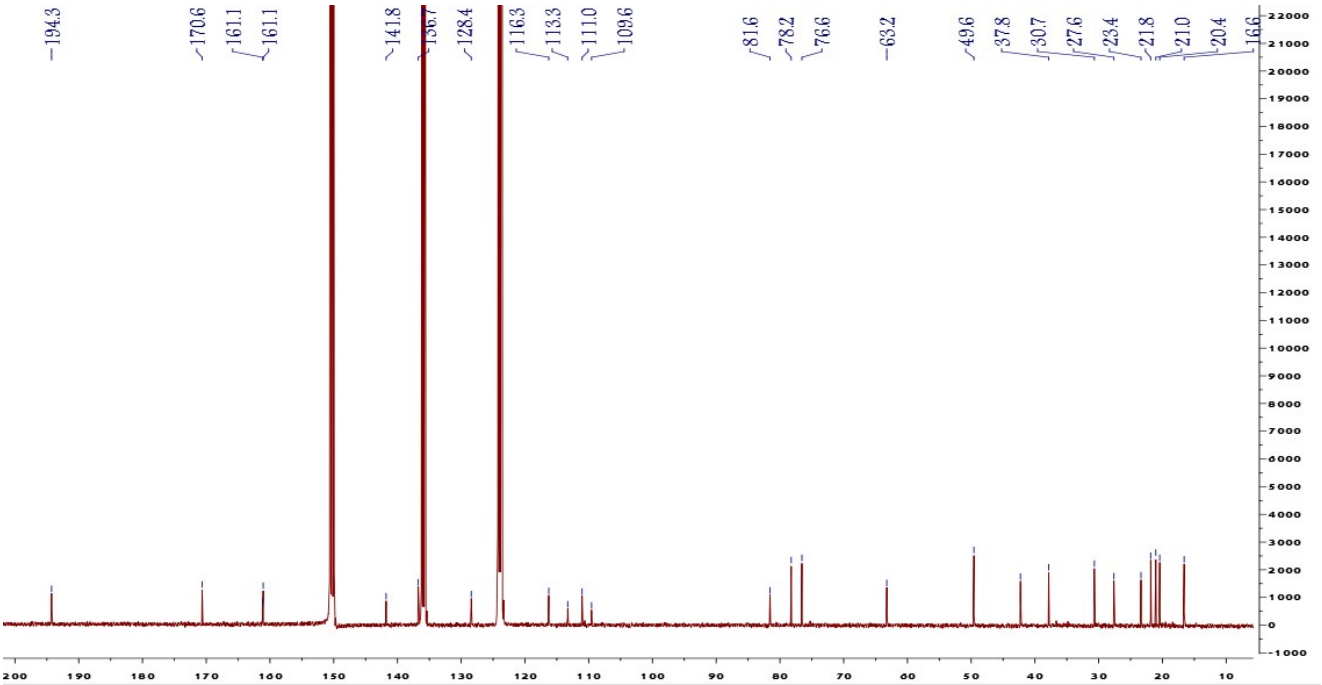


Figure S3. DEPT-90 Spectrum of Stachybonoid A (**1**) in Pyridine-d_5

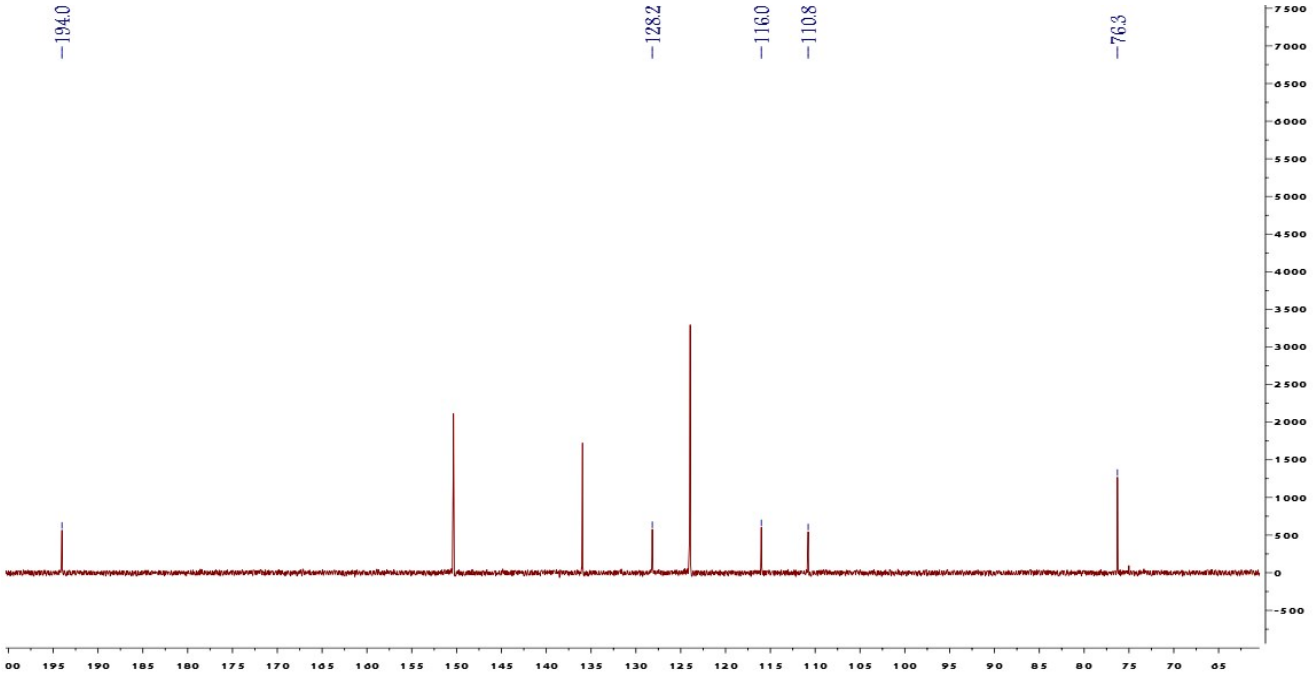


Figure S4. DEPT-135 Spectrum of Stachybonoid A (**1**) in Pyridine-d_5

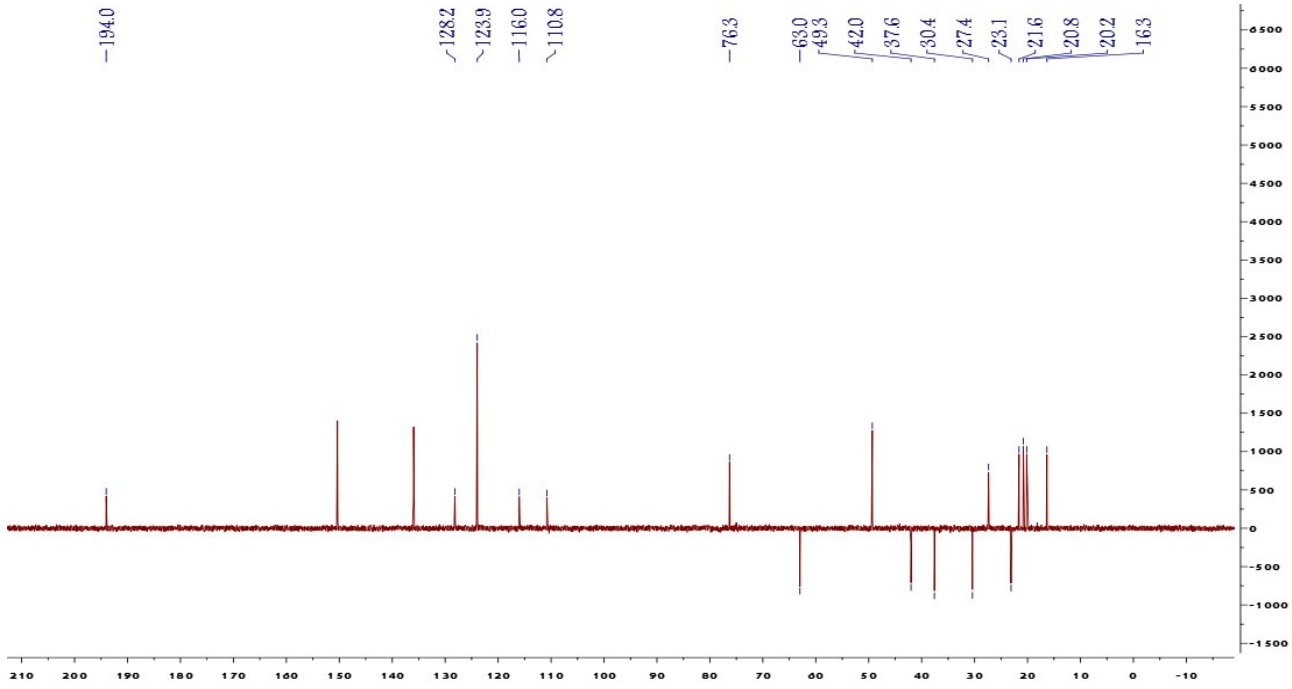


Figure S5. HSQC Spectrum of Stachybonoid A (**1**) in Pyridine-d_5

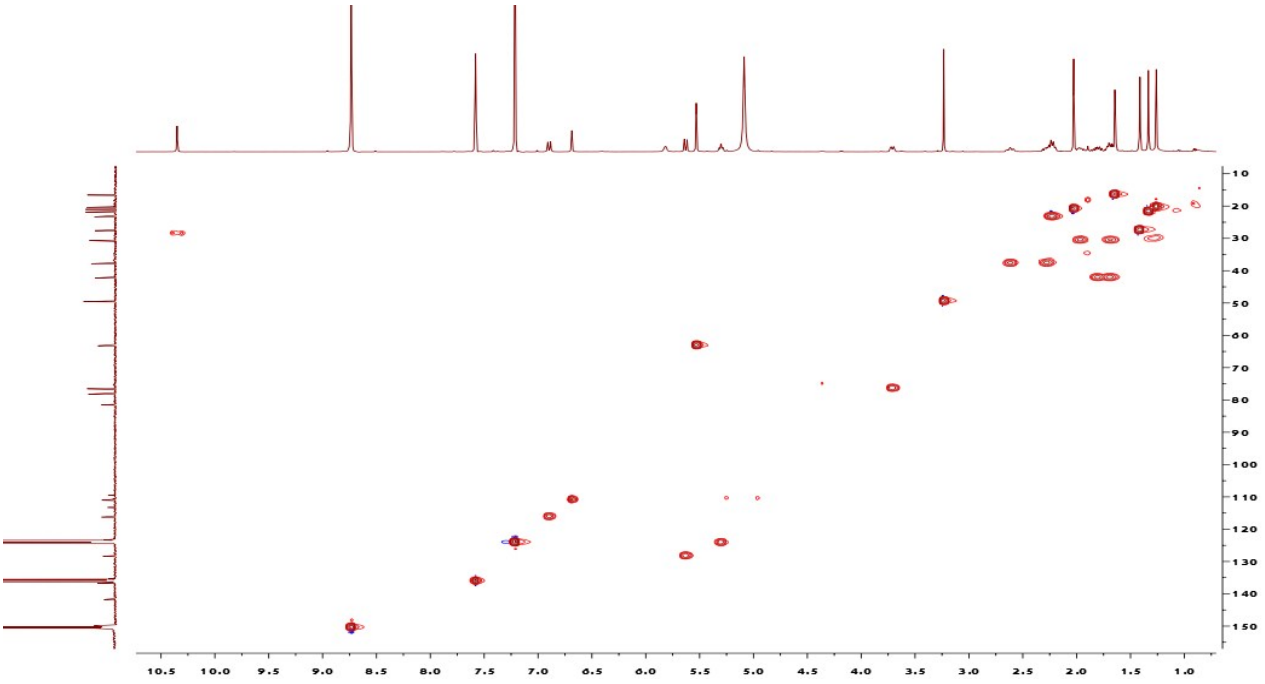


Figure S6. HMBC Spectrum of Stachybonoid A (**1**) in Pyridine-d_5

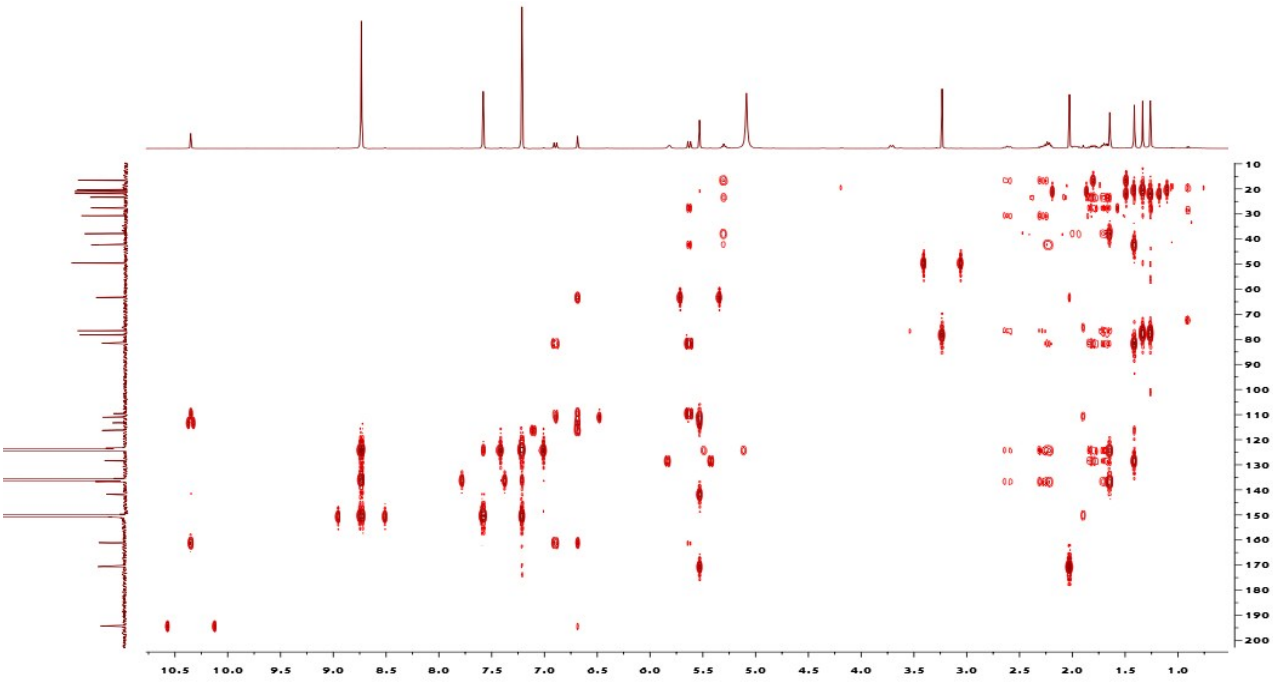


Figure S7. ^{1}H-^{1}H COSY Spectrum of Stachybonoid A (**1**) in Pyridine-d_5

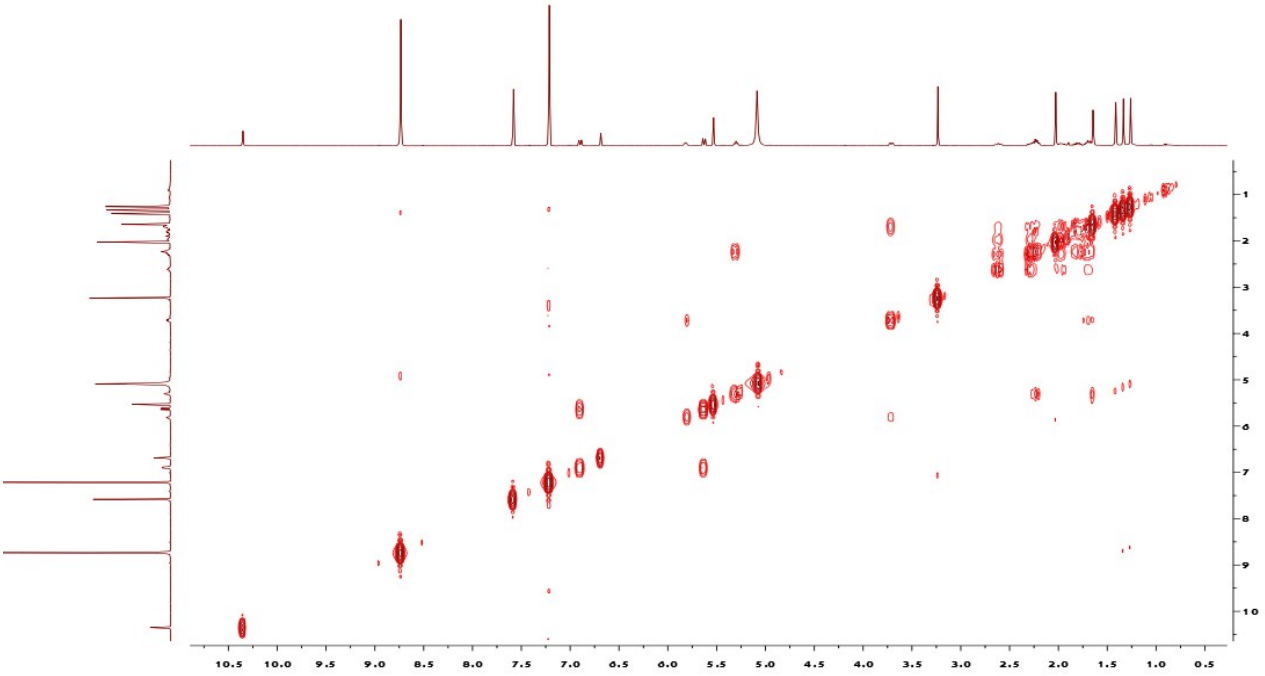


Figure S8. NOESY Spectrum of Stachybonoid A (**1**) in Pyridine-d_5

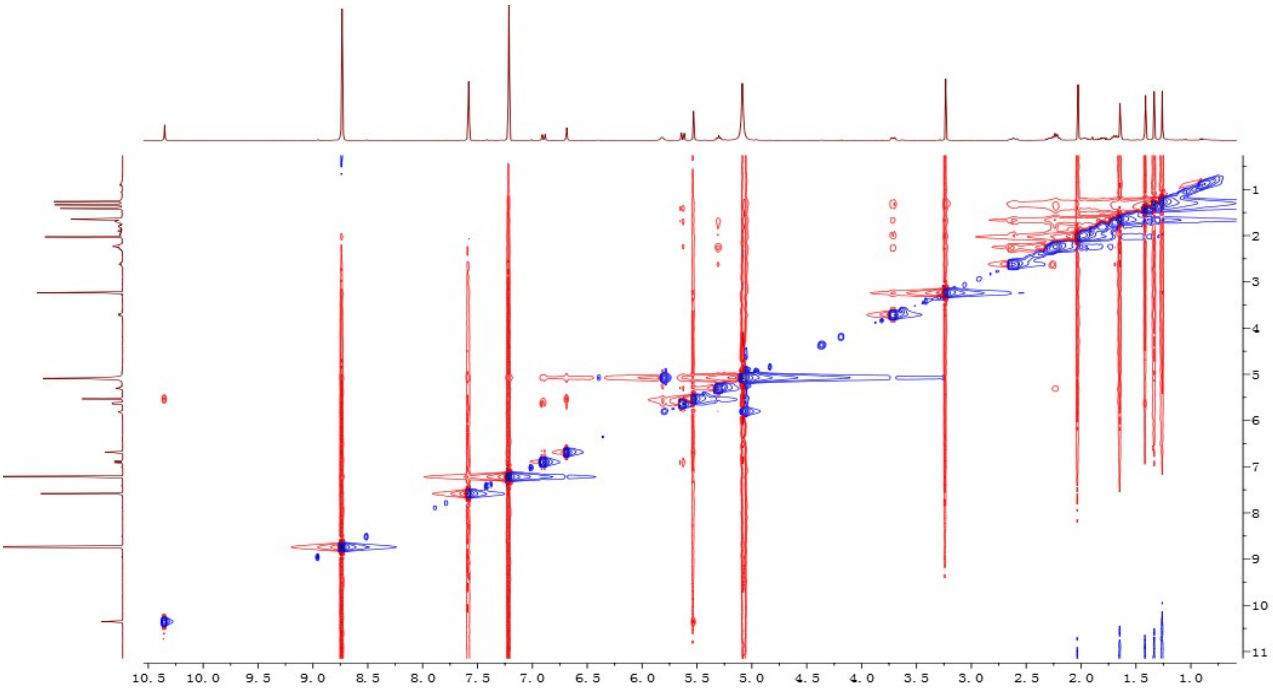
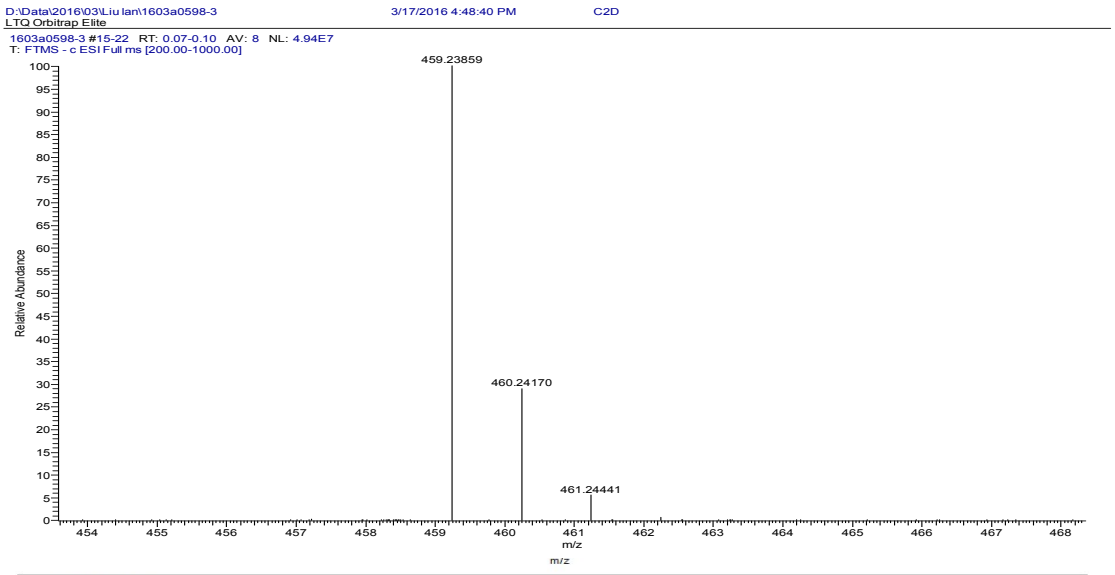


Figure S9. HR-ESIMS of Stachybonoid A (**1**)



SPECTRUM - simulation :

m/z	Theo. Mass	Delta (ppm)	RDB equiv.	Composition
459.23859	459.23883	-0.52	9.5	C26 H35 O7

Figure S10. ^{1}H (400 MHz) NMR Spectrum of Stachybonoid B (**2**) in Pyridine-d_5

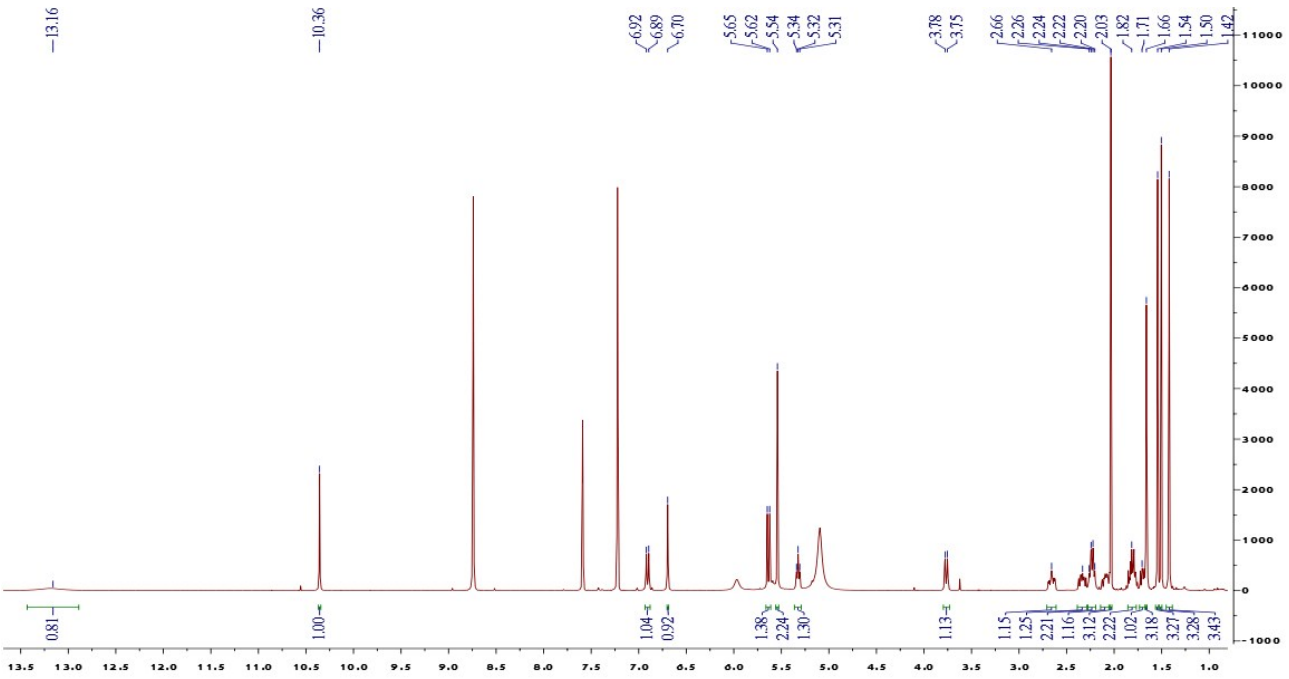


Figure S11. ^{13}C (100 MHz) NMR Spectrum of Stachybonoid B (**2**) in Pyridine-d_5

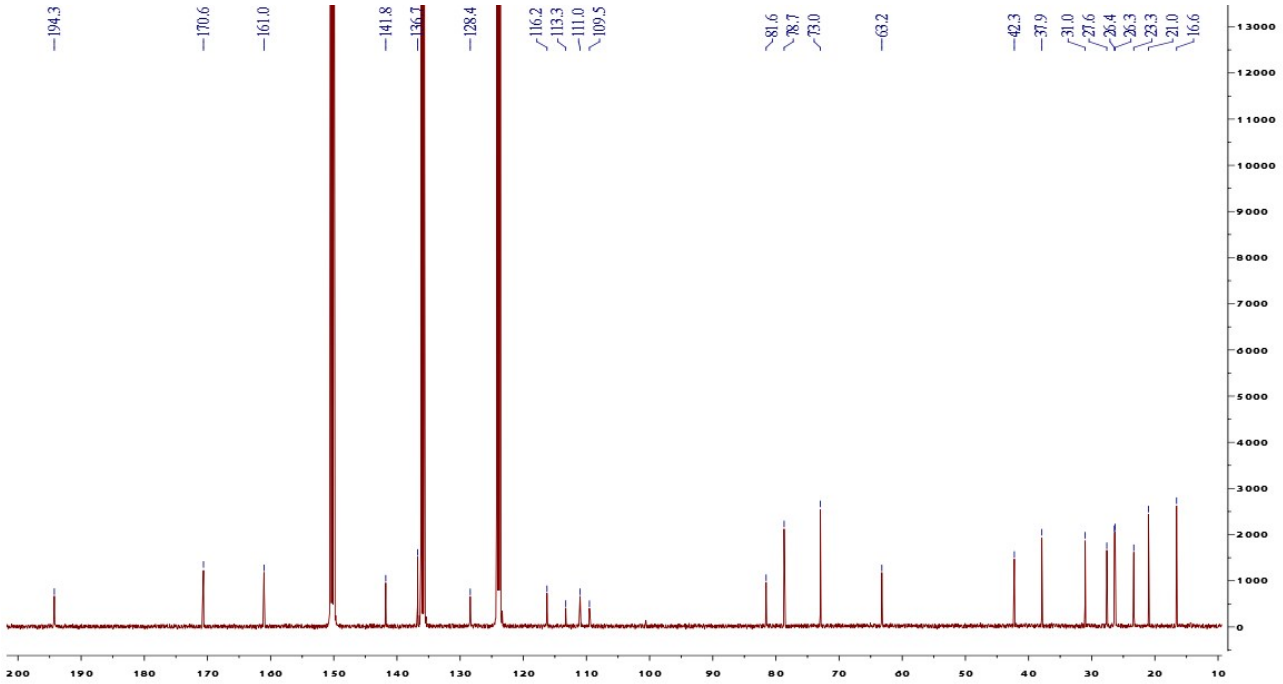


Figure S12. DEPT-90 Spectrum of Stachybonoid B (**2**) in Pyridine-d_5

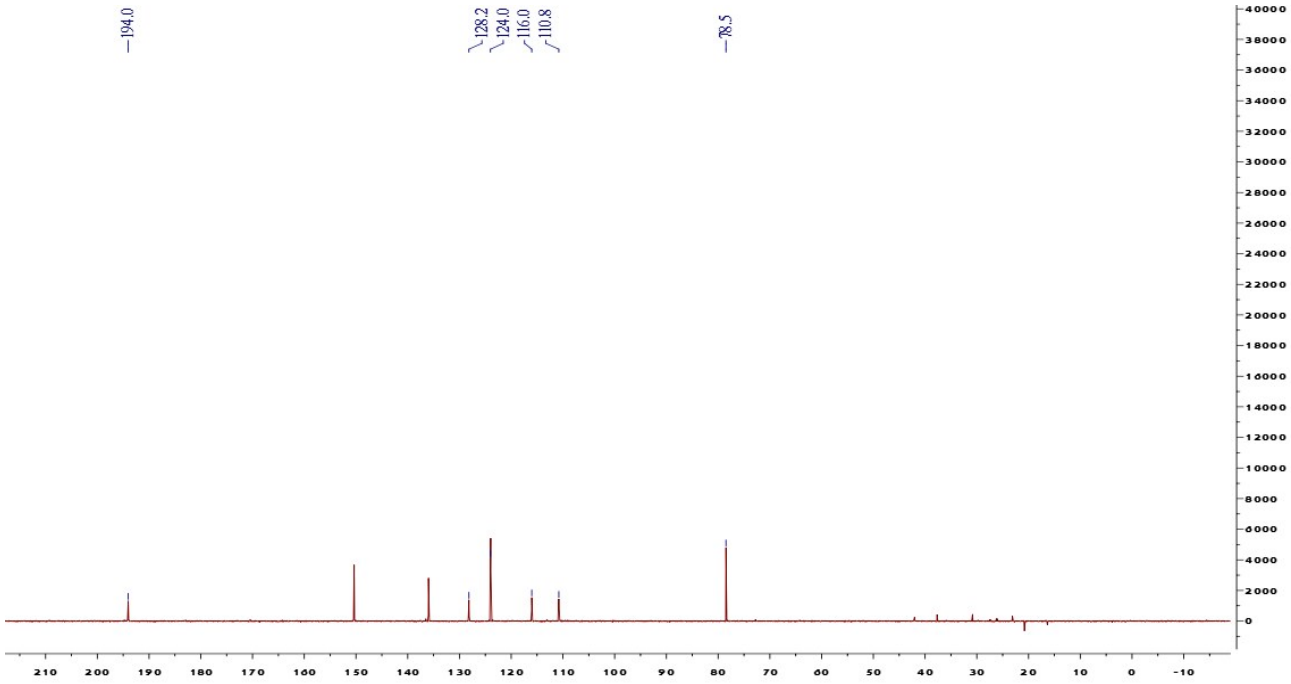


Figure S13. DEPT-135 Spectrum of Stachybonoid B (**2**) in Pyridine-d_5

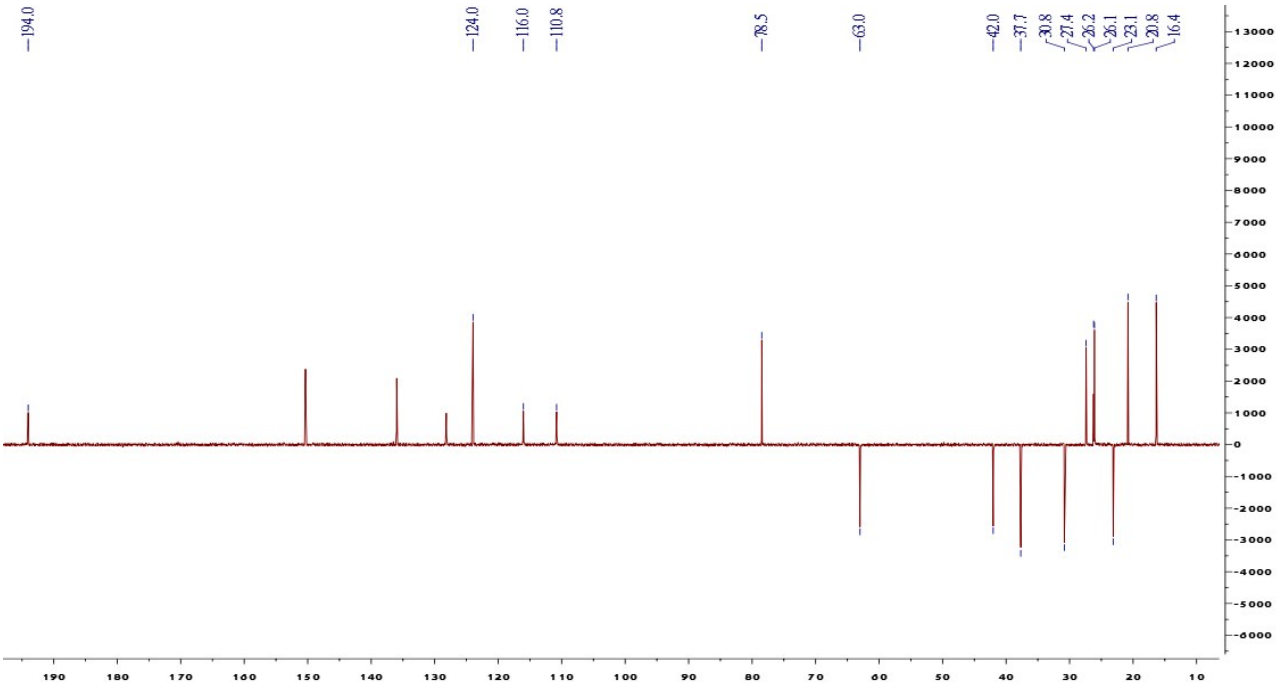


Figure S14. HSQC Spectrum of Stachybonoid B (**2**) in Pyridine-d_5

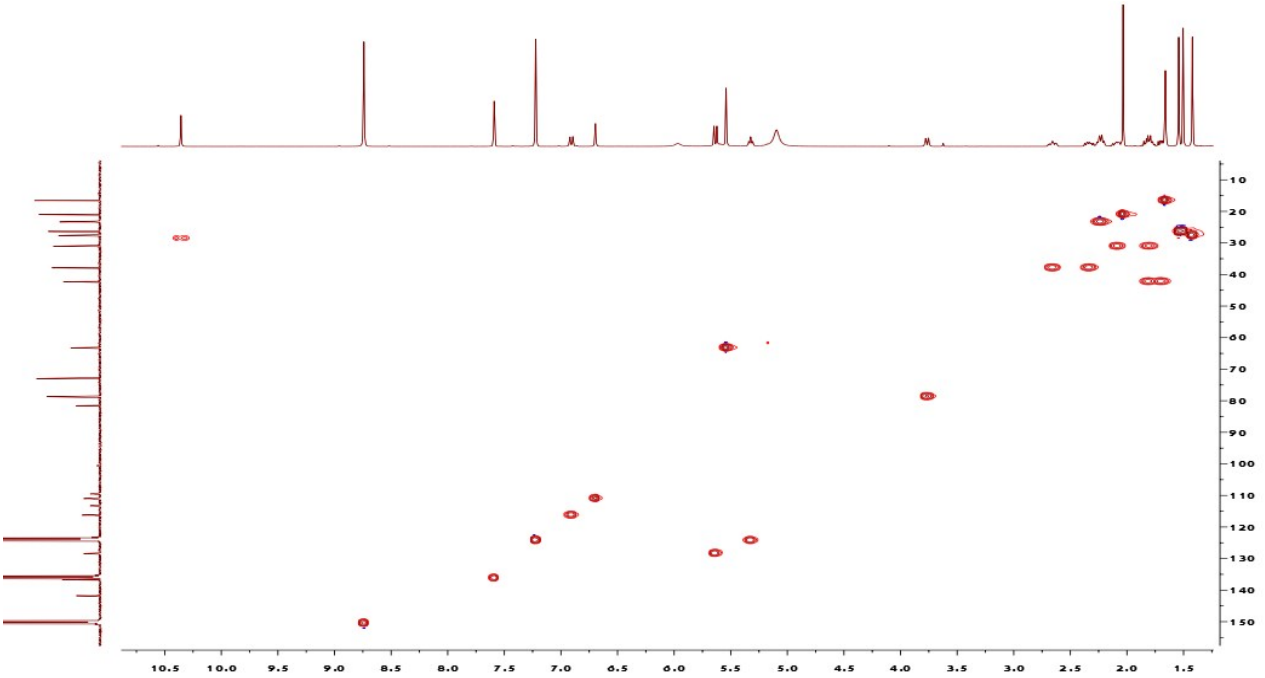


Figure S15. HMBC Spectrum of Stachybonoid B (**2**) in Pyridine-d_5

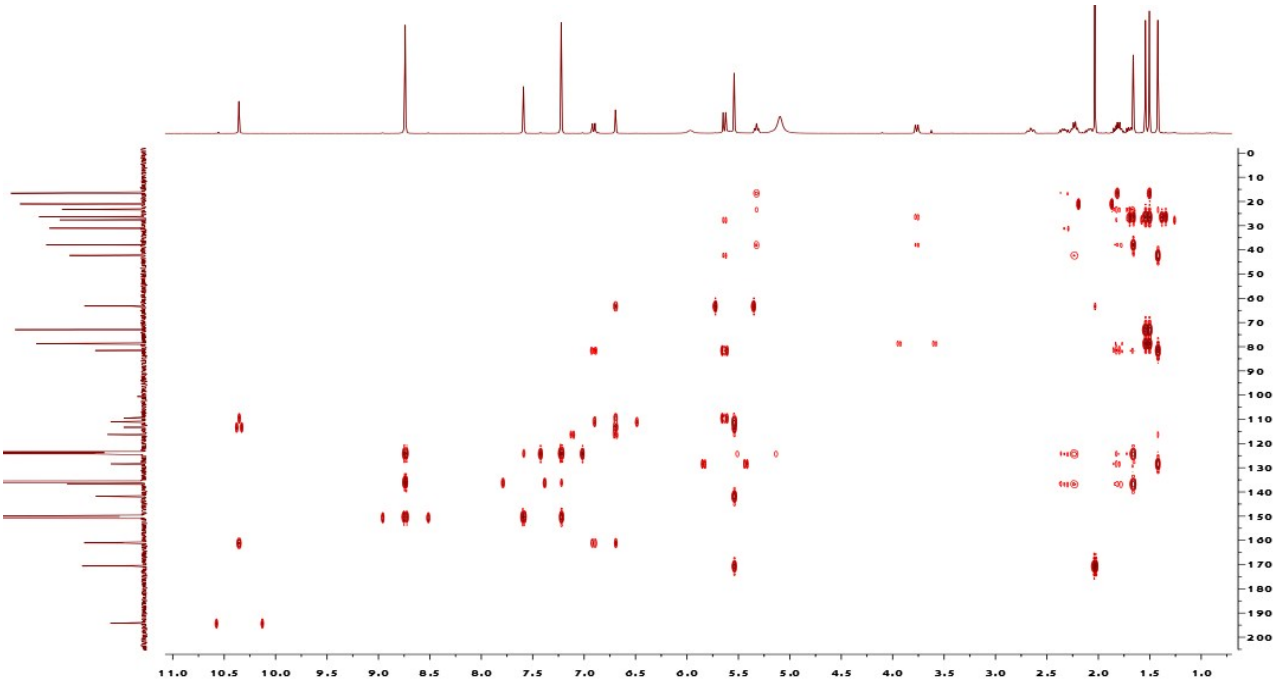


Figure S16. ^{1}H-^{1}H COSY Spectrum of Stachybonoid B (**2**) in Pyridine-d_5

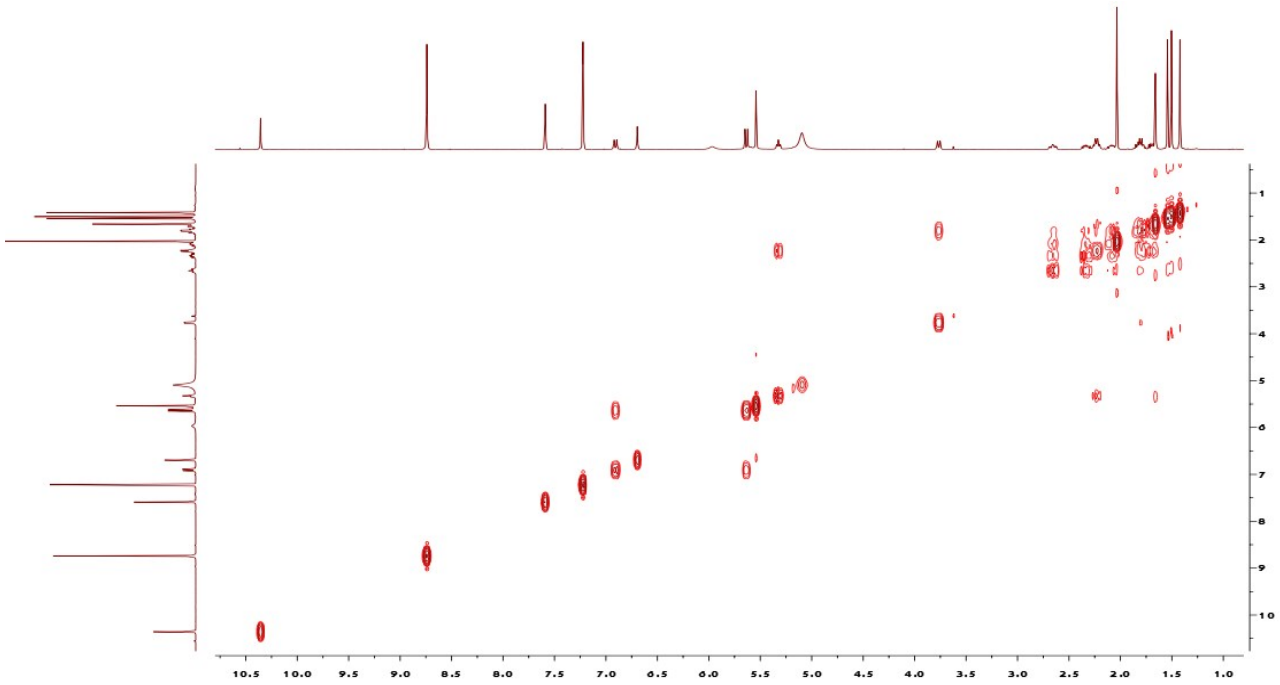


Figure S17. NOESY Spectrum of Stachybonoid B (**2**) in Pyridine-d_5

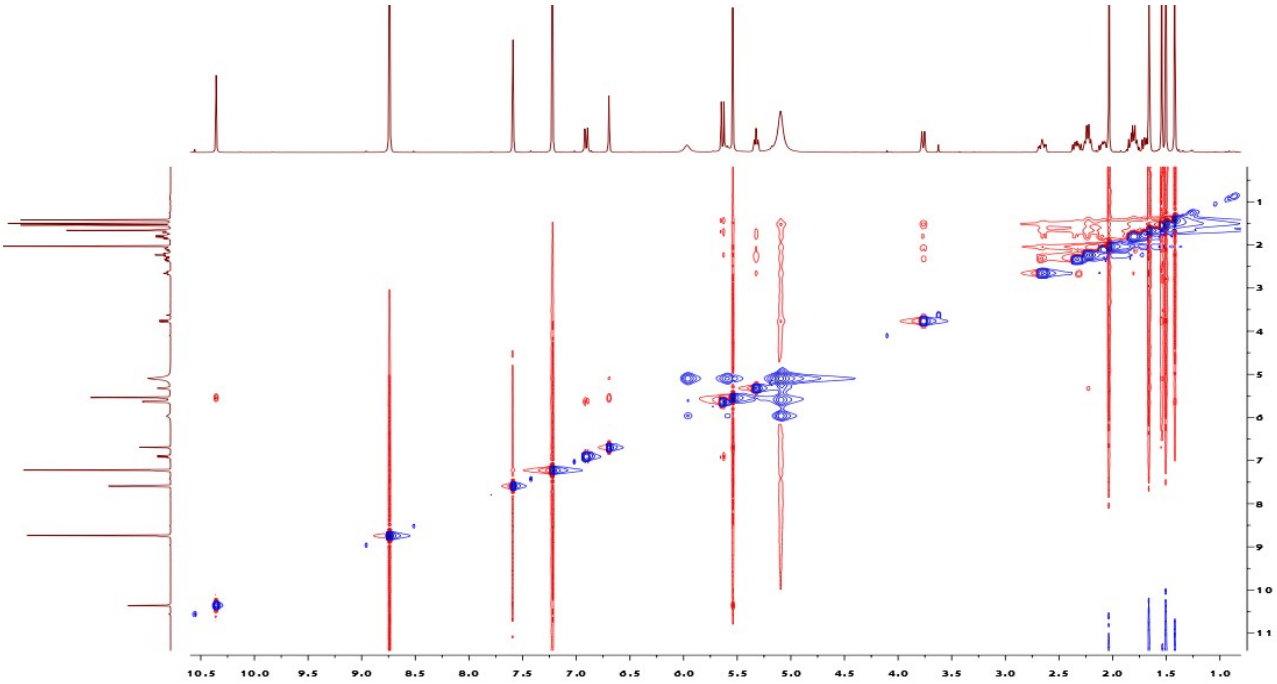
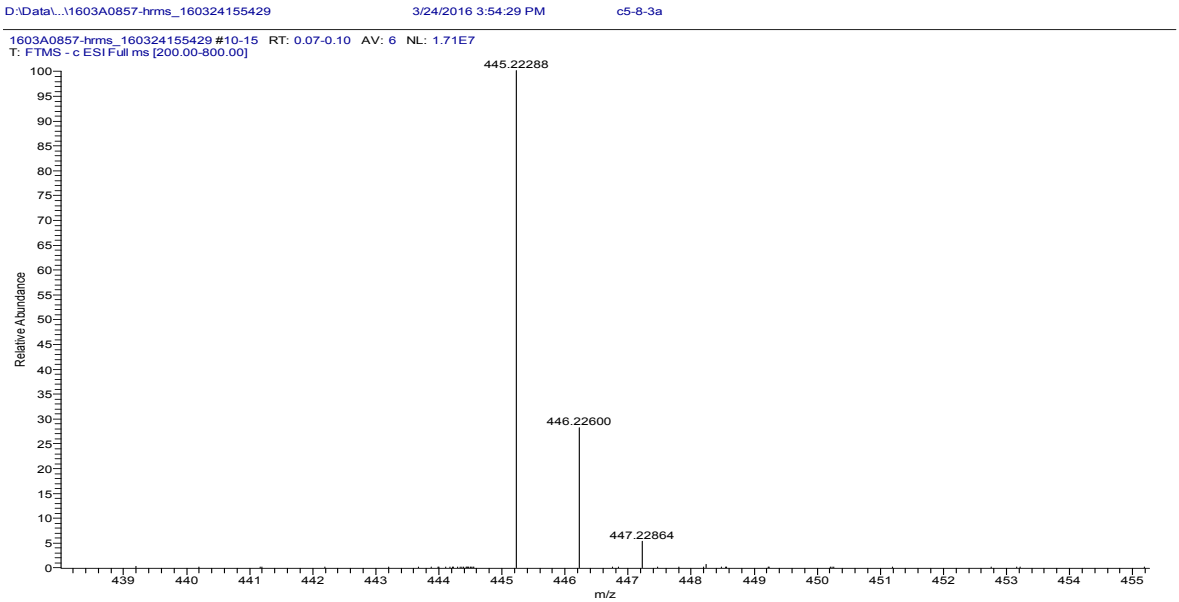


Figure S18. HR-ESIMS of Stachybonoid B (**2**)



SPECTRUM - simulation :

m/z	Theo. Mass	Delta (ppm)	RDB equiv.	Composition
445.22288	445.22318	-0.67	9.5	C25 H33 O7

Figure S19. ^{1}H (400 MHz) NMR Spectrum of Stachybonoid C (**3**) in Pyridine-d_5

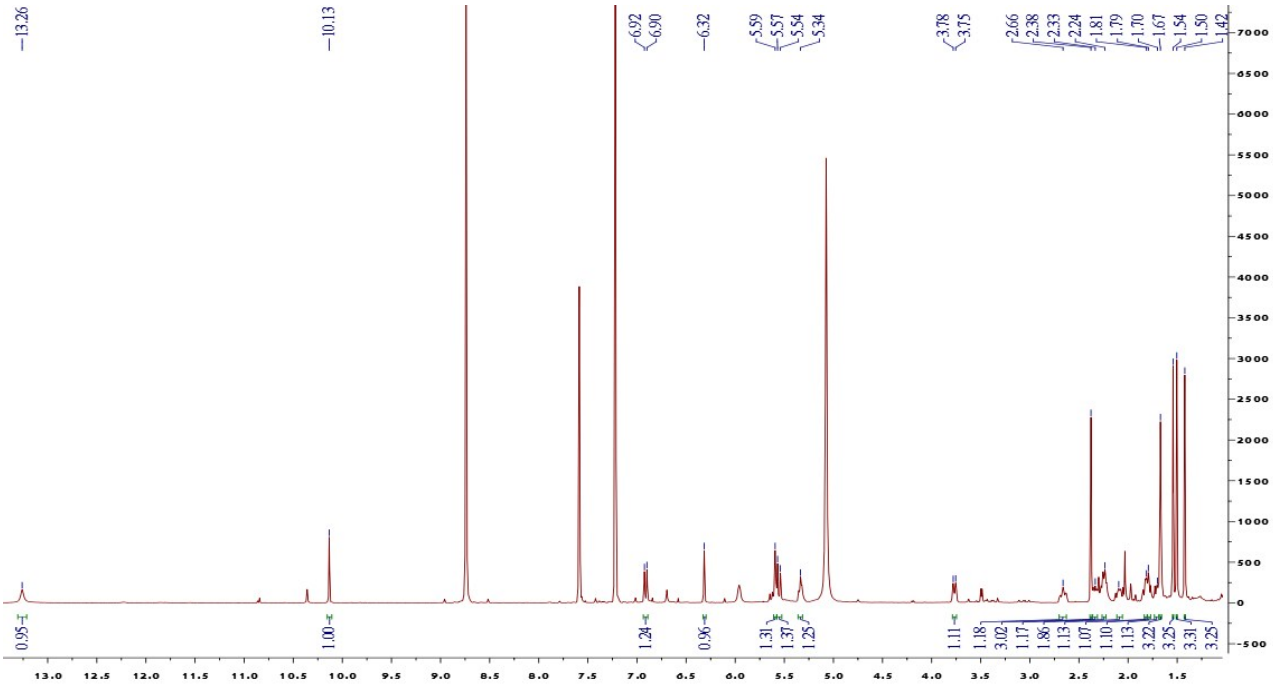


Figure S20. ^{13}C (100 MHz) NMR Spectrum of Stachybonoid C (**3**) in Pyridine-d_5

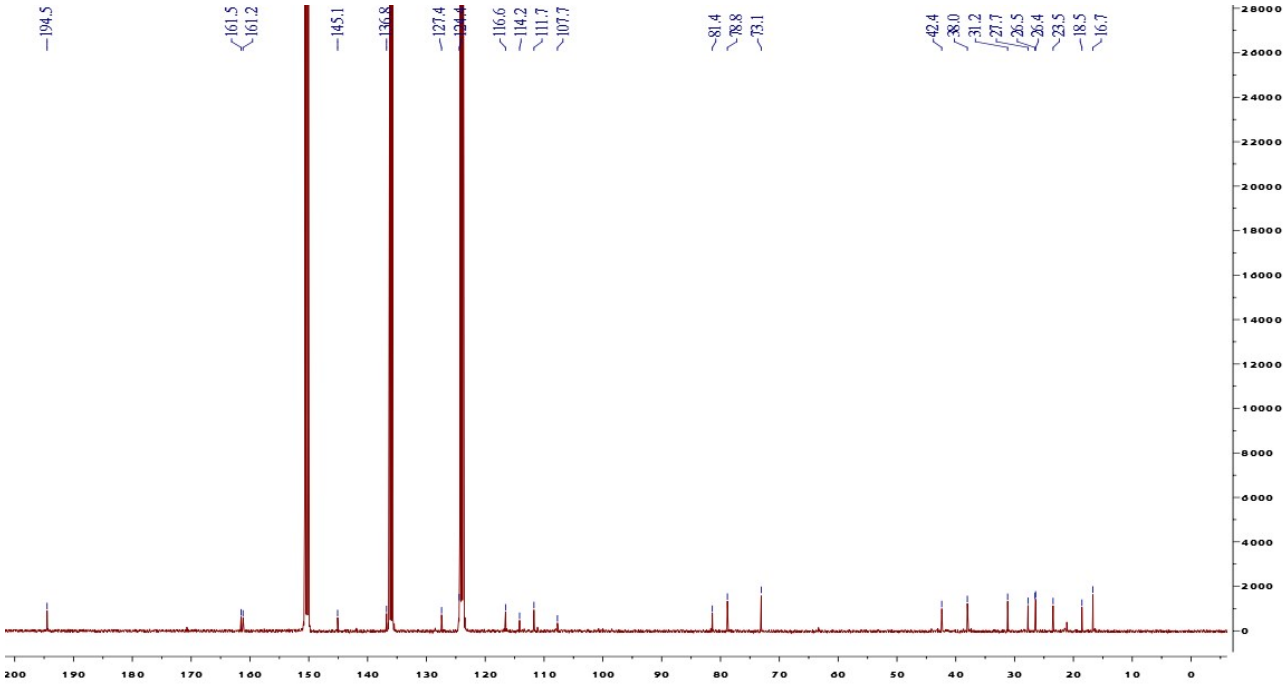


Figure S21. DEPT-90 Spectrum of Stachybonoid C (**3**) in Pyridine-d_5

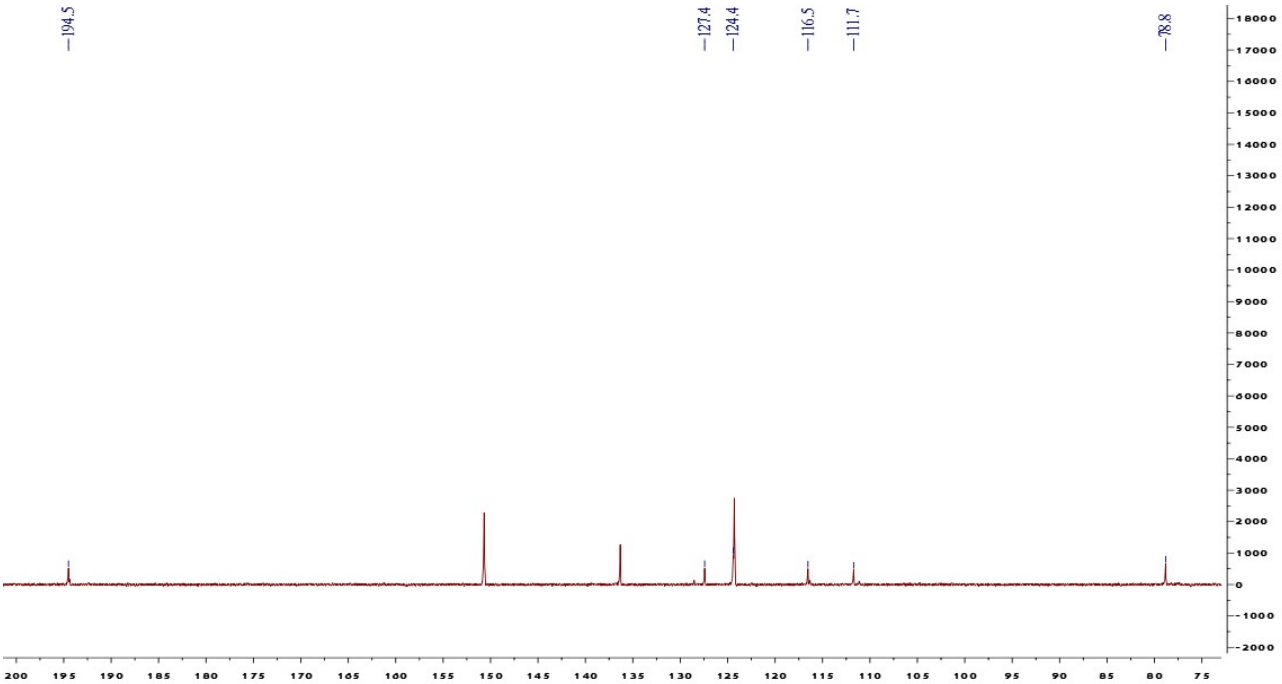


Figure S22. DEPT-135 Spectrum of Stachybonoid C (**3**) in Pyridine-d_5

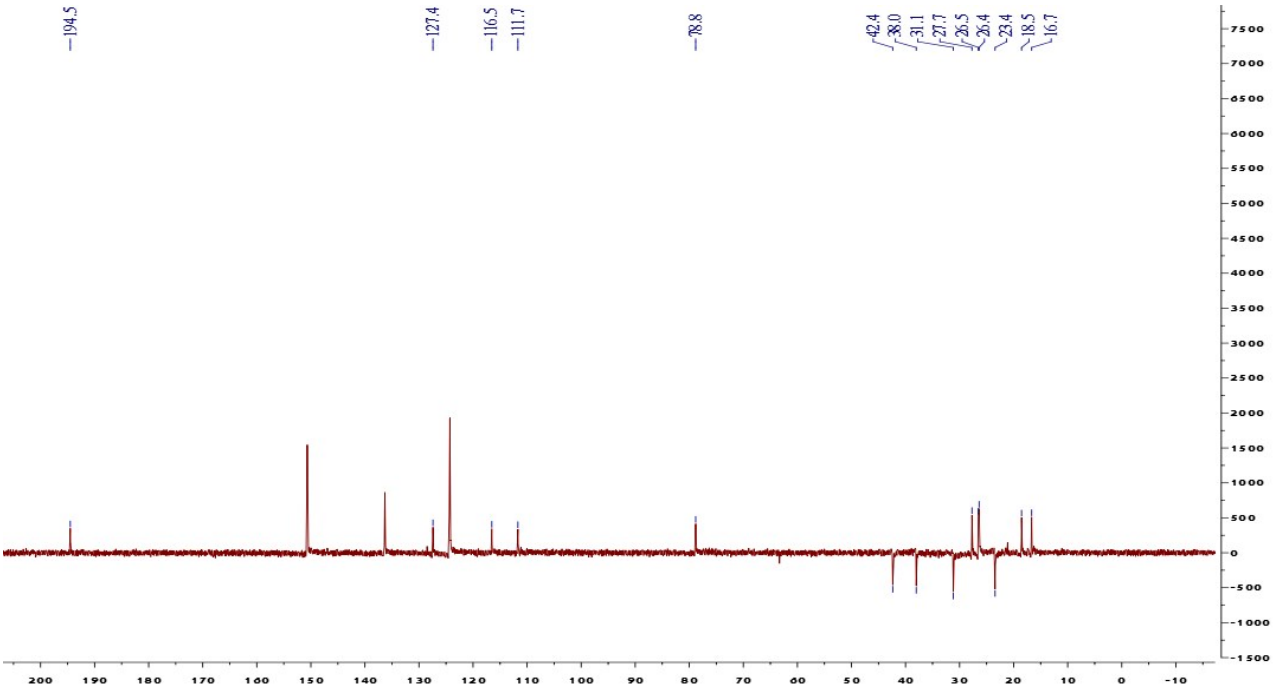


Figure S23. HSQC Spectrum of Stachybonoid C (**3**) in Pyridine-d_5

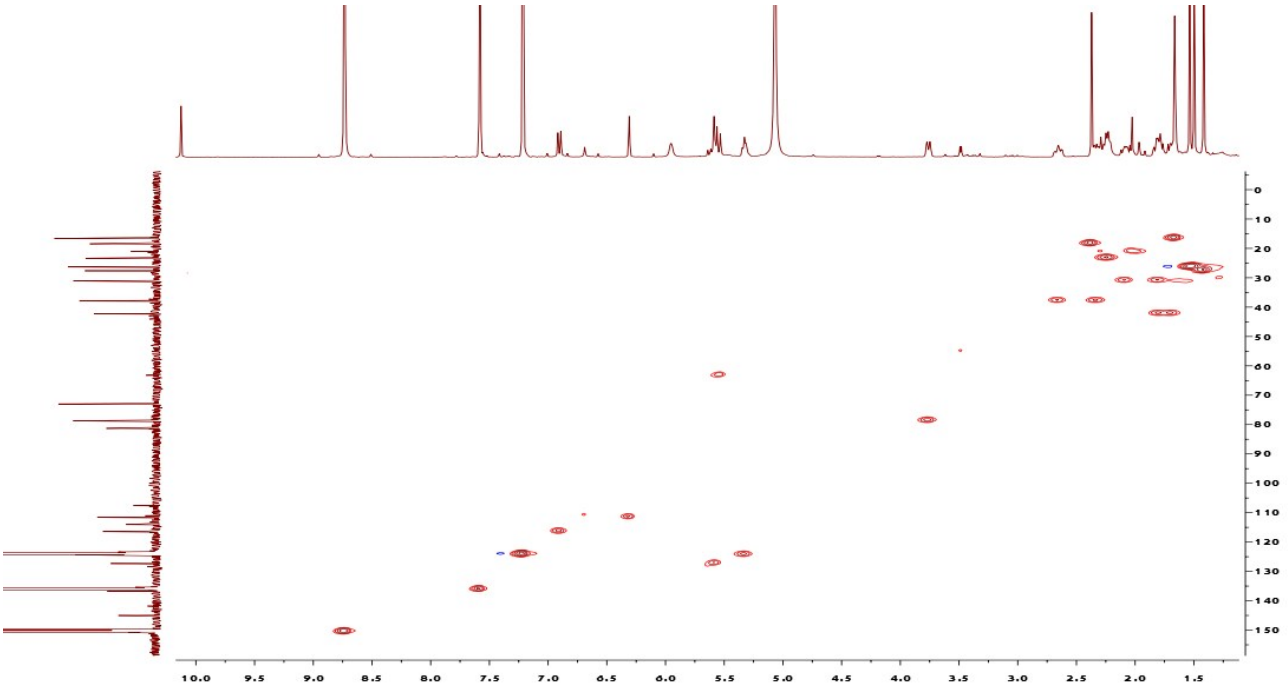


Figure S24. HMBC Spectrum of Stachybonoid C (**3**) in Pyridine-d_5

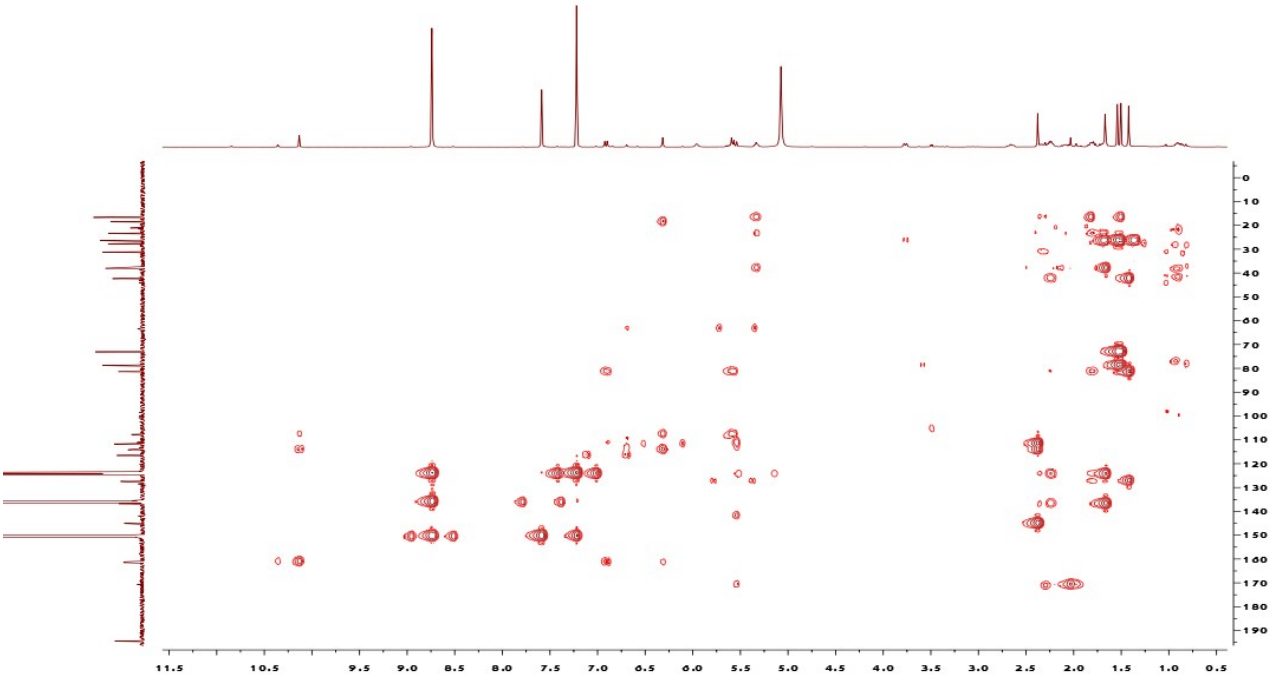


Figure S25. ^{1}H-^{1}H COSY Spectrum of Stachybonoid C (**3**) in Pyridine-d_5

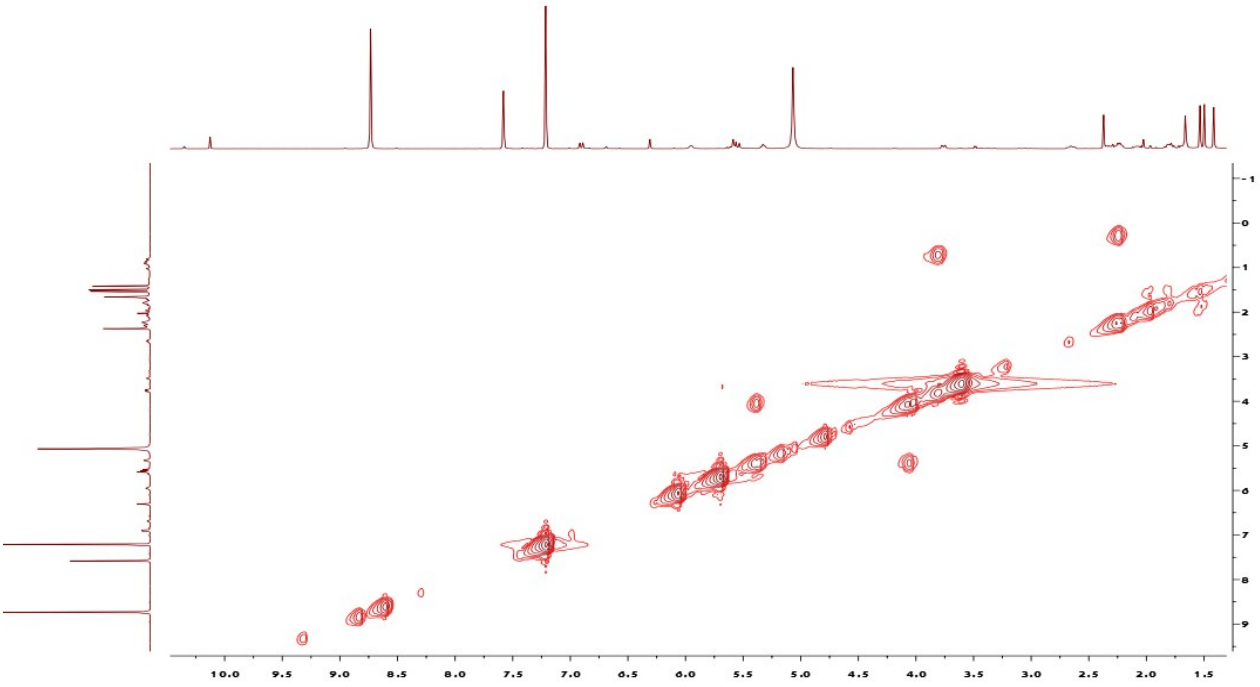


Figure S26. NOESY Spectrum of Stachybonoid C (**3**) in Pyridine-d_5

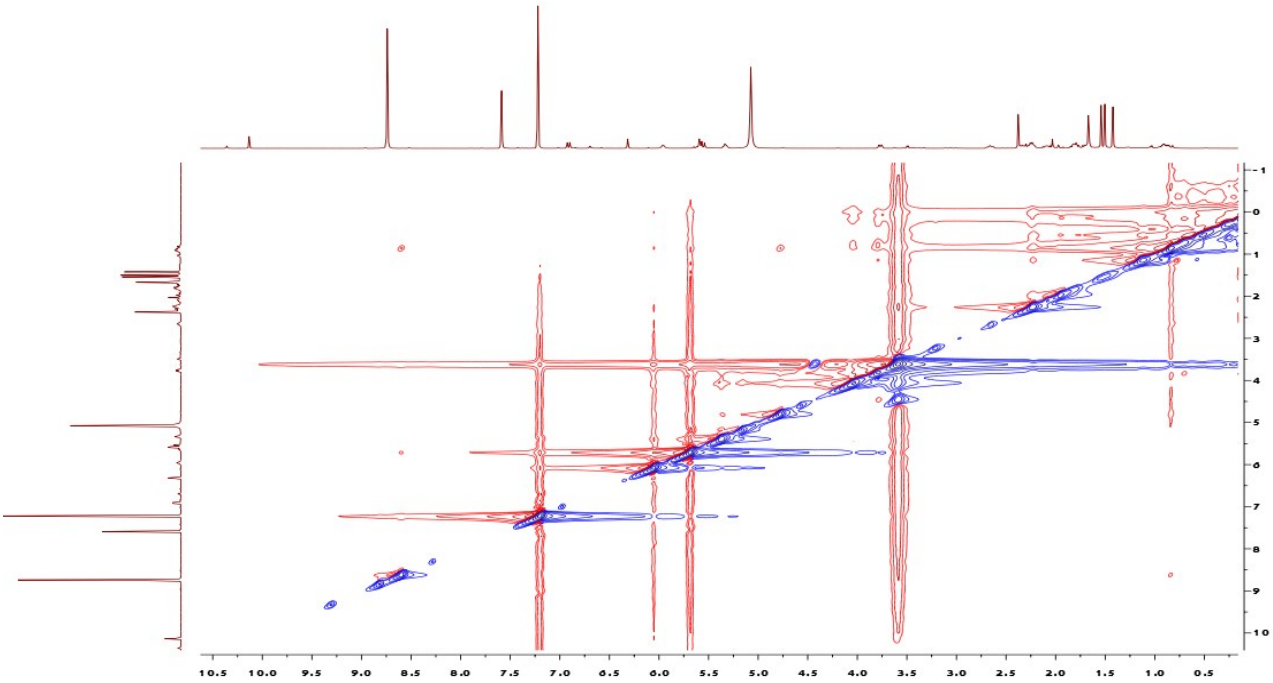


Figure S27. HR-ESIMS of Stachybonoid C (**3**)

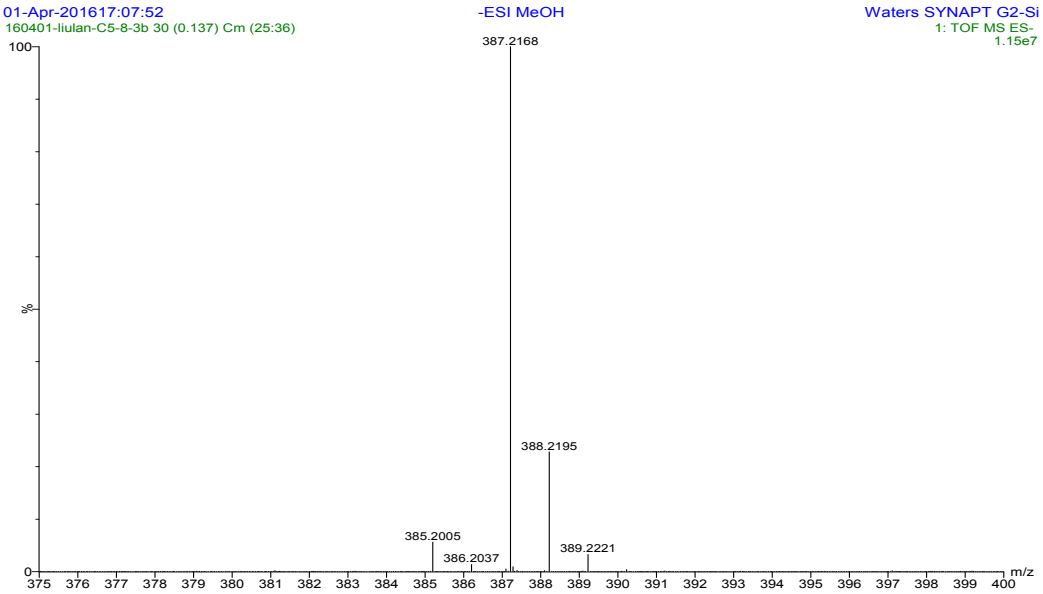


Figure S28. ^{1}H (400 MHz) NMR Spectrum of Stachybonoid D (**5**) in Pyridine-d_5

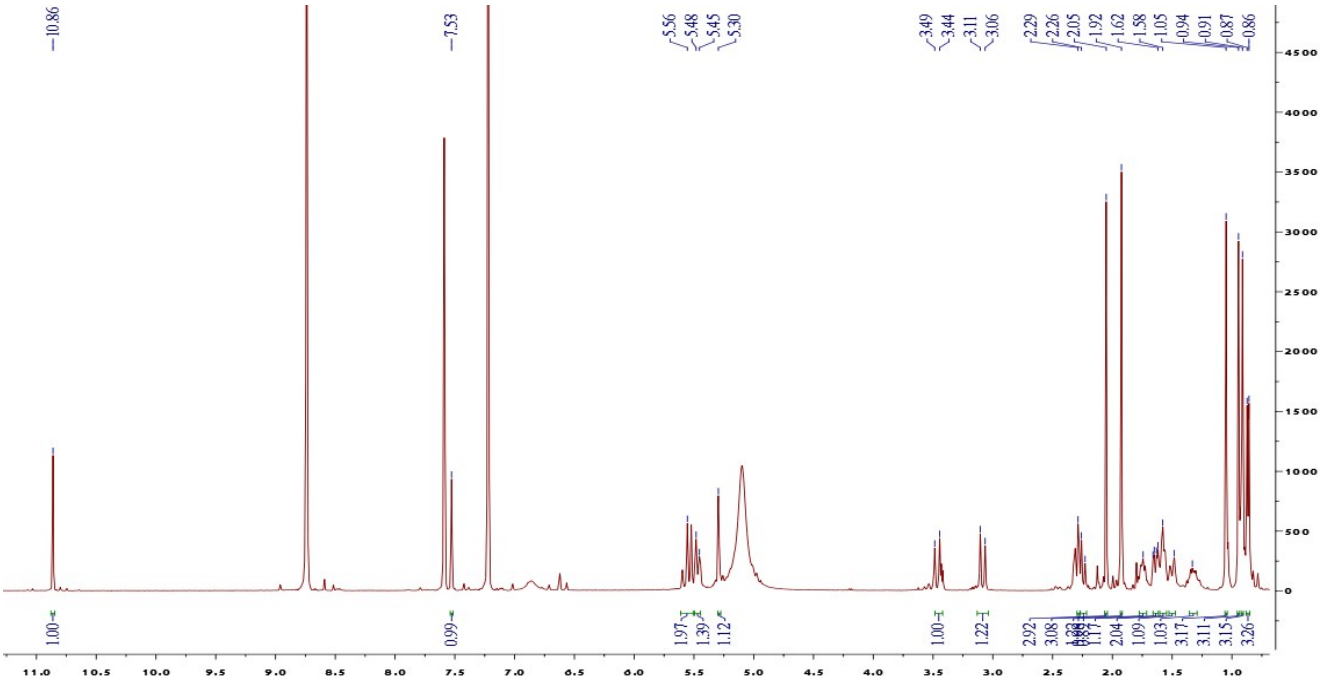


Figure S29. ^{13}C (100 MHz) NMR Spectrum of Stachybonoid D (**5**) in Pyridine-d_5

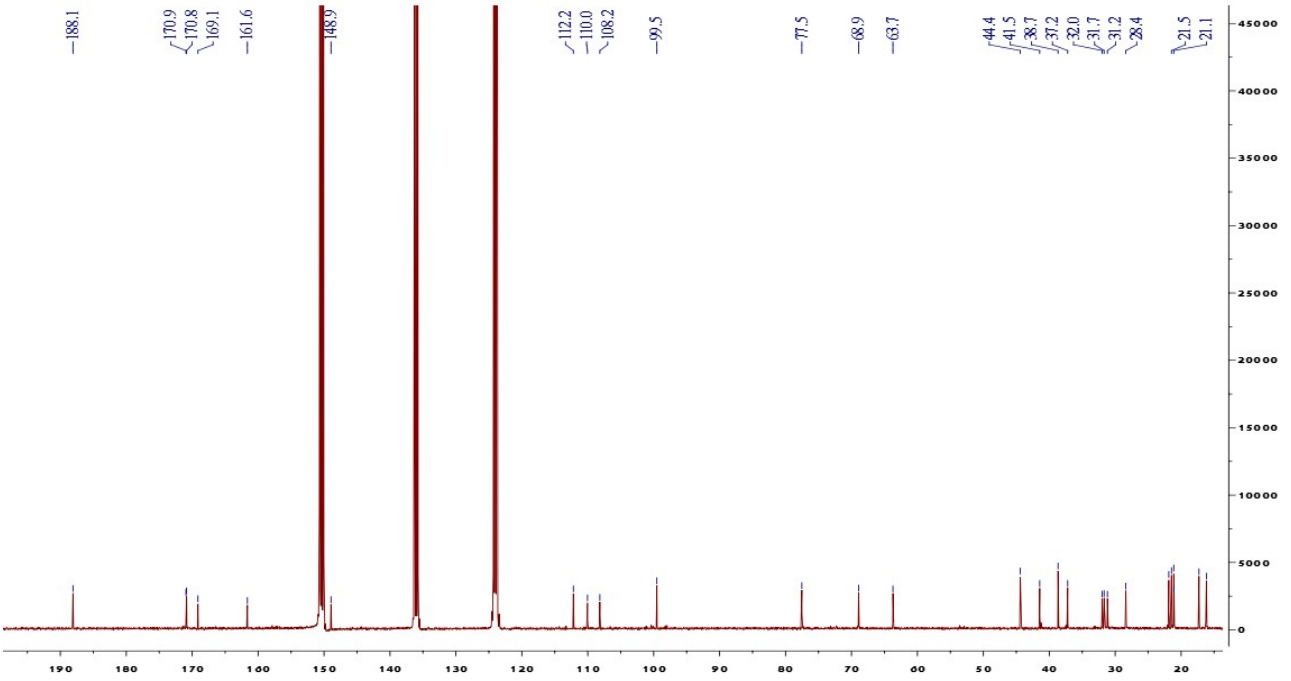


Figure S30. DEPT-90 Spectrum of Stachybonoid D (**5**) in Pyridine-d_5

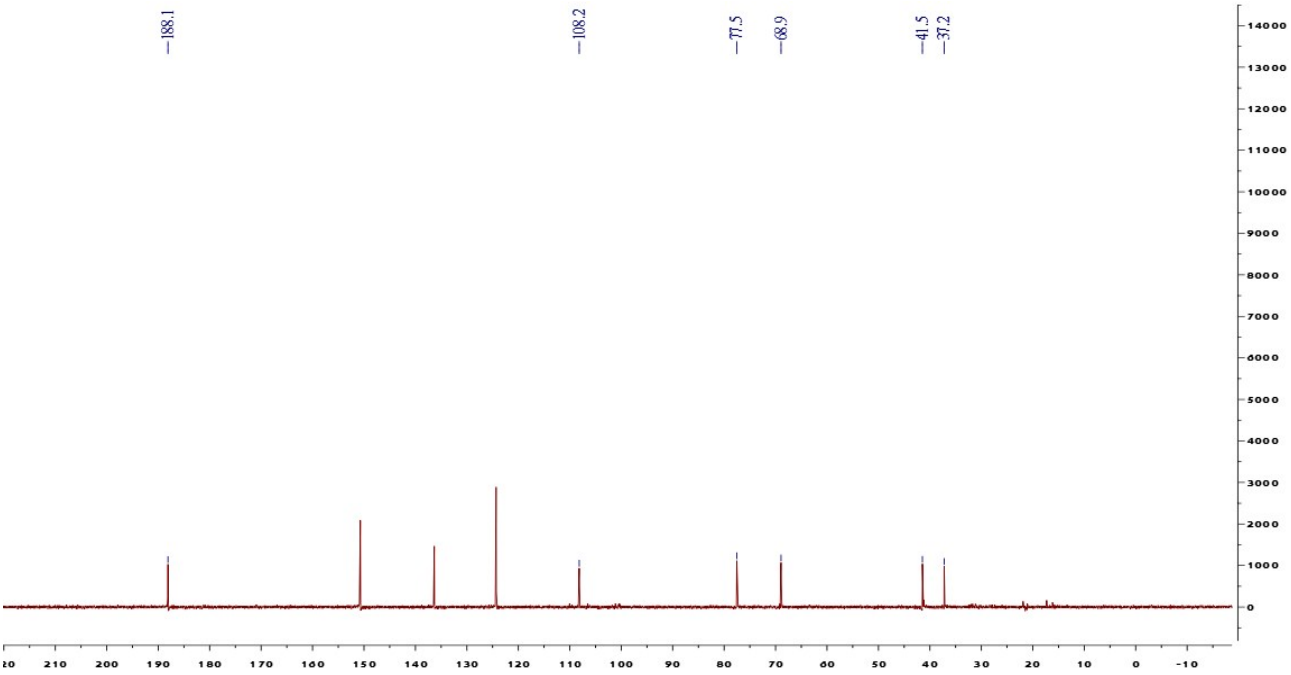


Figure S31. DEPT-135 Spectrum of Stachybonoid D (**5**) in Pyridine-d_5

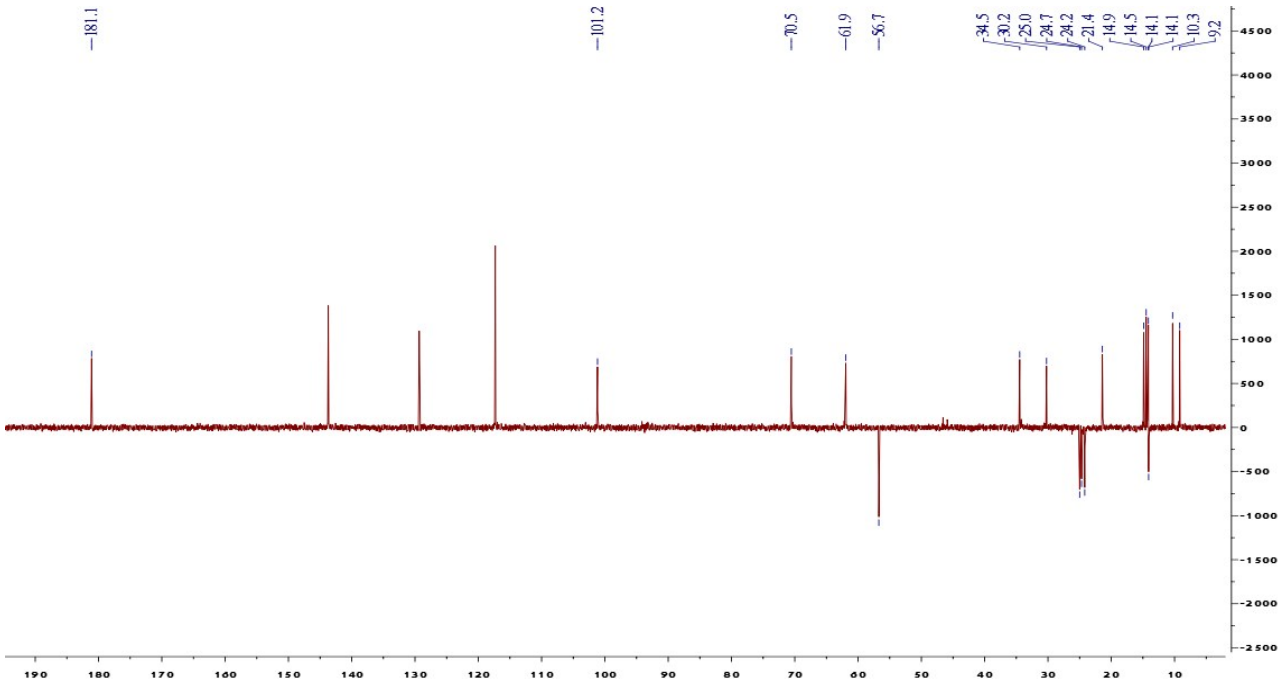


Figure S32. HSQC Spectrum of Stachybonoid D (**5**) in Pyridine-d_5

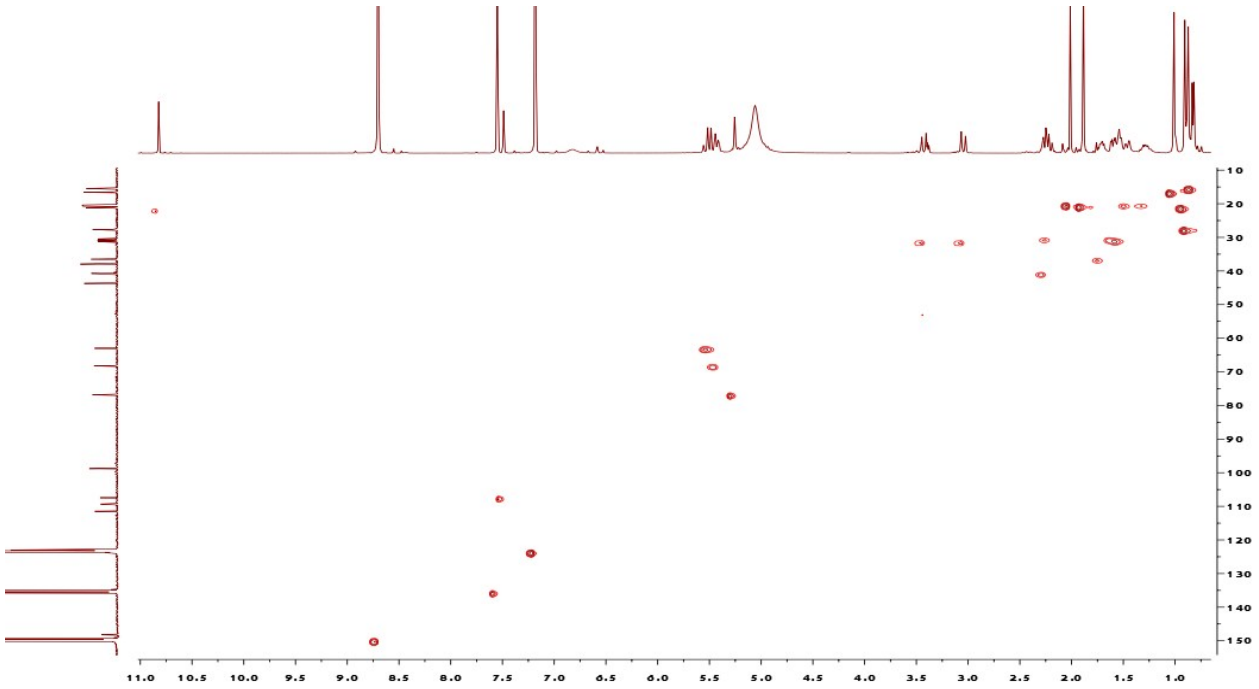


Figure S33. HMBC Spectrum of Stachybonoid D (**5**) in Pyridine-d_5

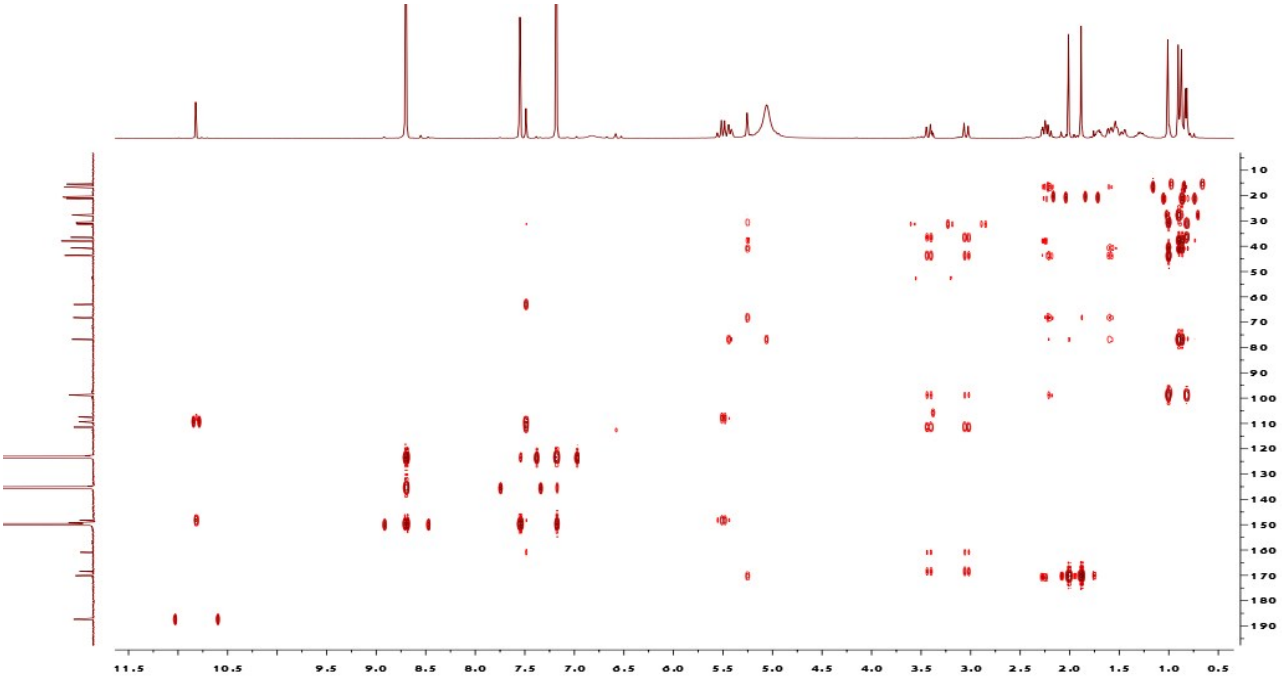


Figure S34. ^{1}H-^{1}H COSY Spectrum of Stachybonoid D (**5**) in Pyridine-d_5

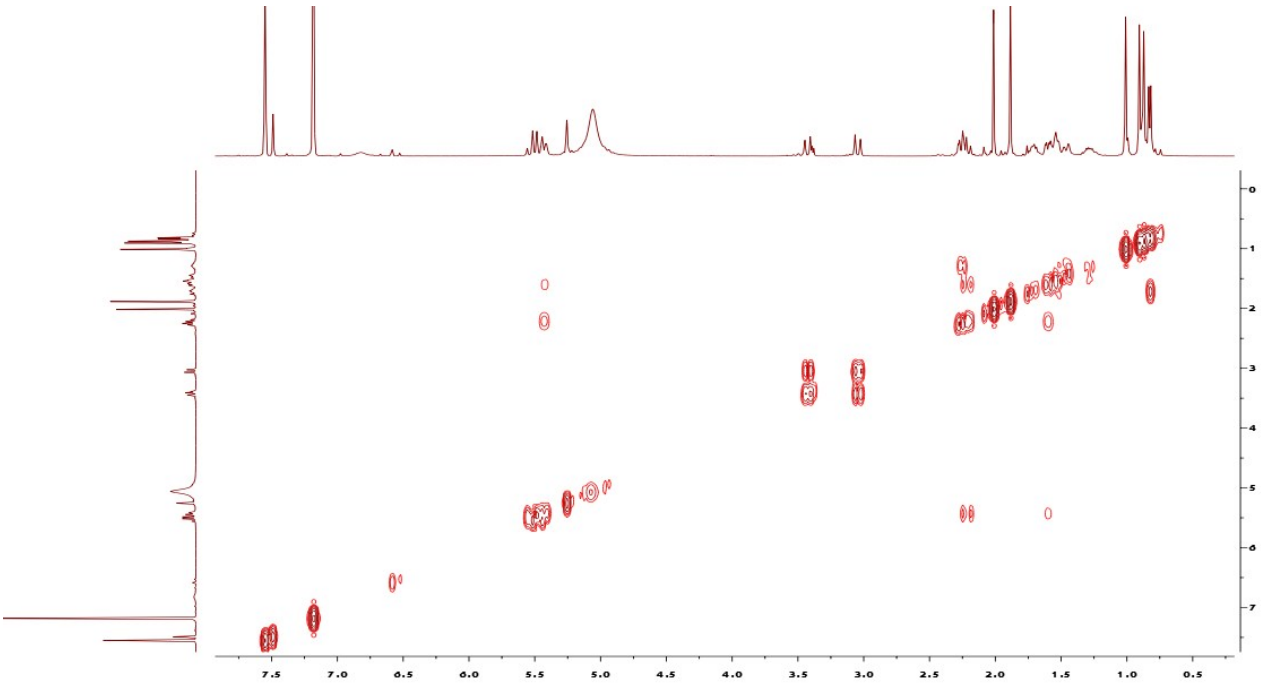


Figure S35. NOESY Spectrum of Stachybonoid D (**5**) in Pyridine-d_5

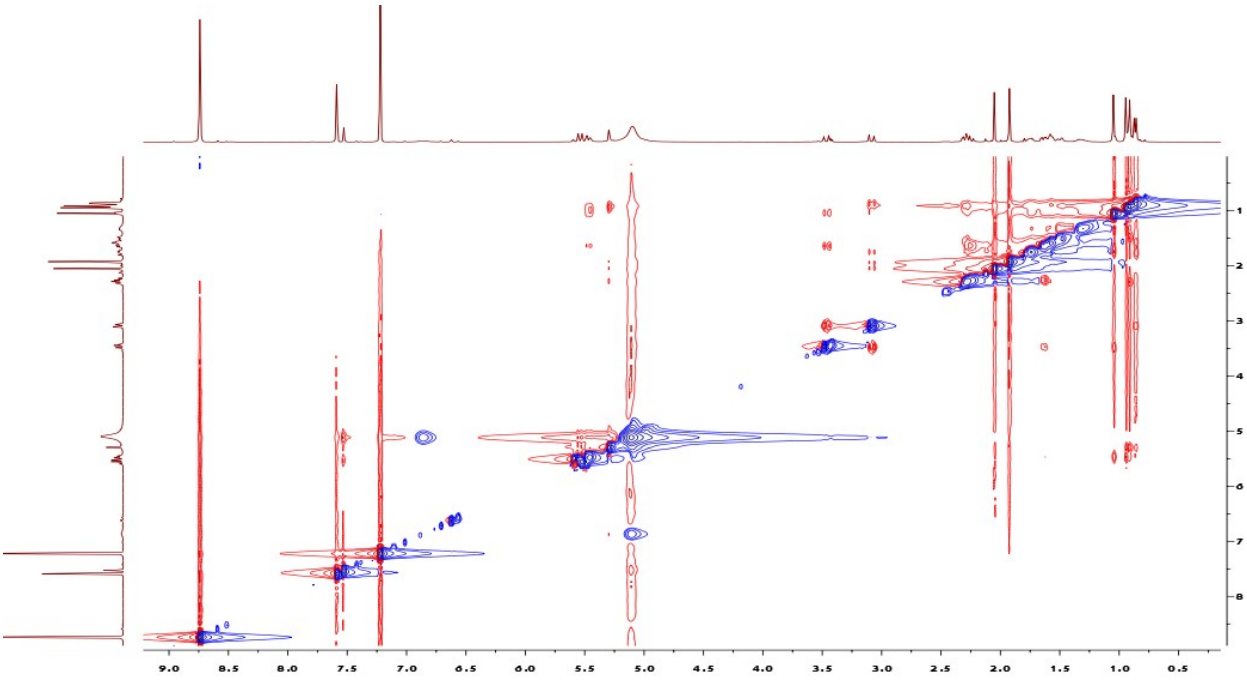
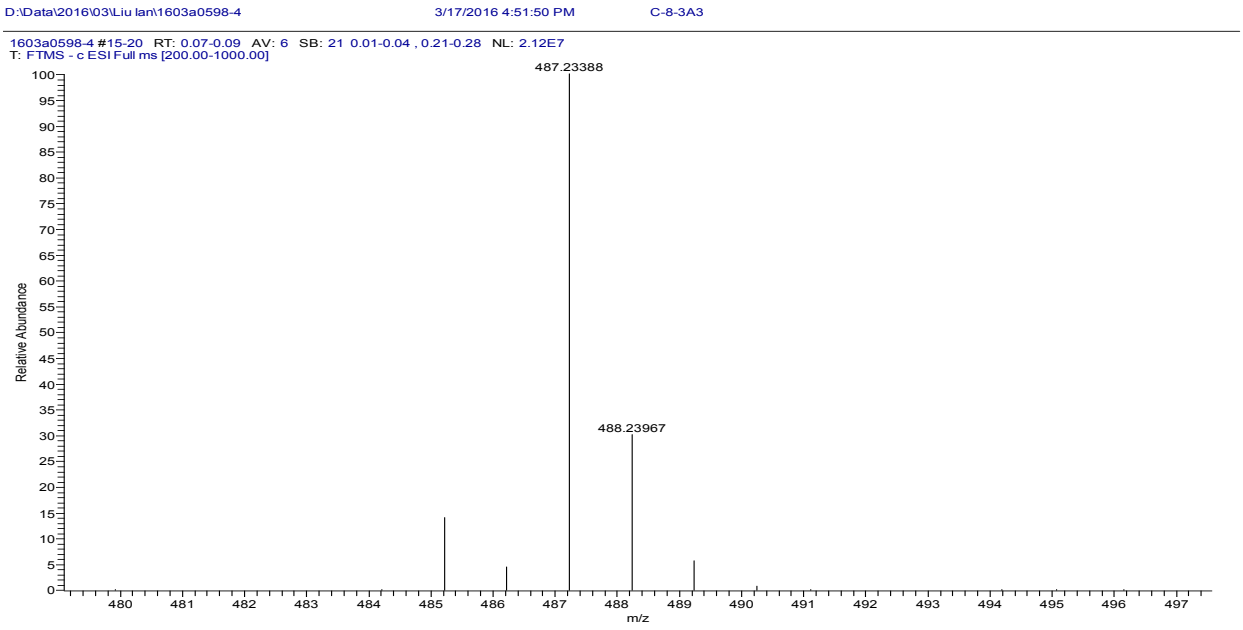


Figure S36. HR-ESIMS of stachybonoid D (**5**)



SPECTRUM - simulation :

m/z	Theo. Mass	Delta (ppm)	RDB equiv.	Composition
487.23388	487.23374	0.28	10.5	C27 H35 O8

Figure S37. ^{1}H (400 MHz) NMR Spectrum of Stachybonoid E (**6**) in Pyridine-d_5

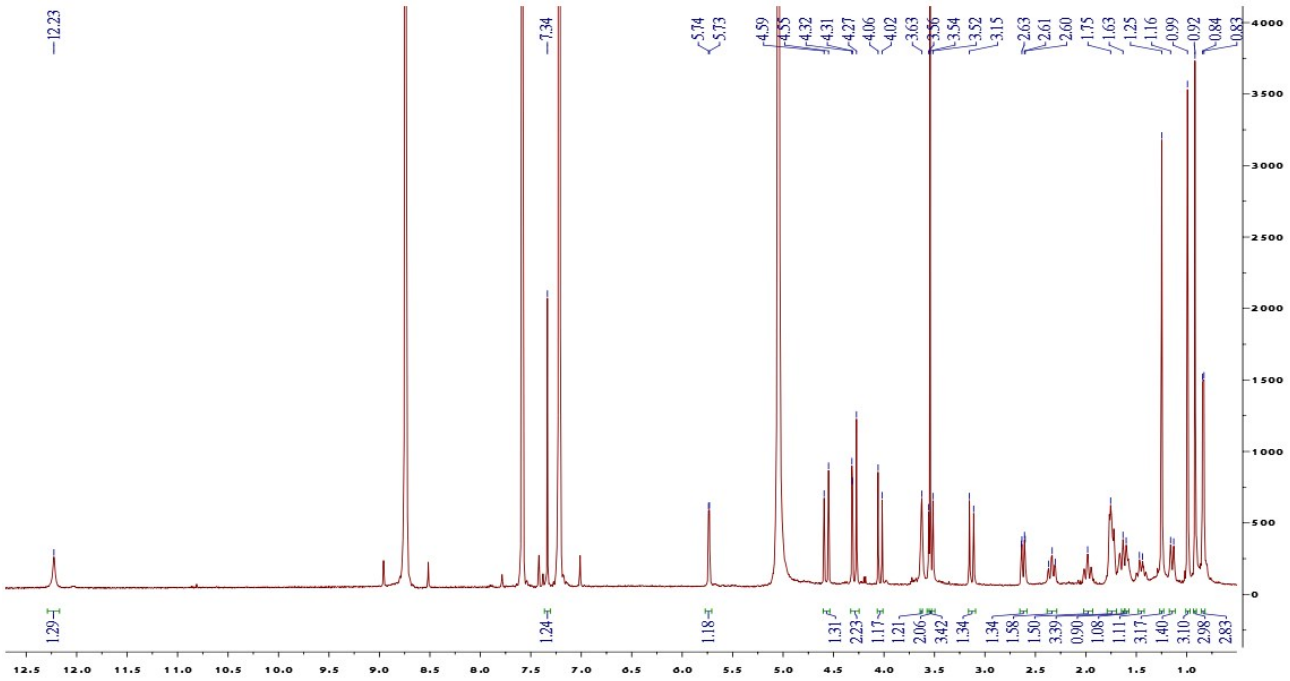


Figure S38. ^{13}C (100 MHz) NMR Spectrum of Stachybonoid E (**6**) in Pyridine-d_5

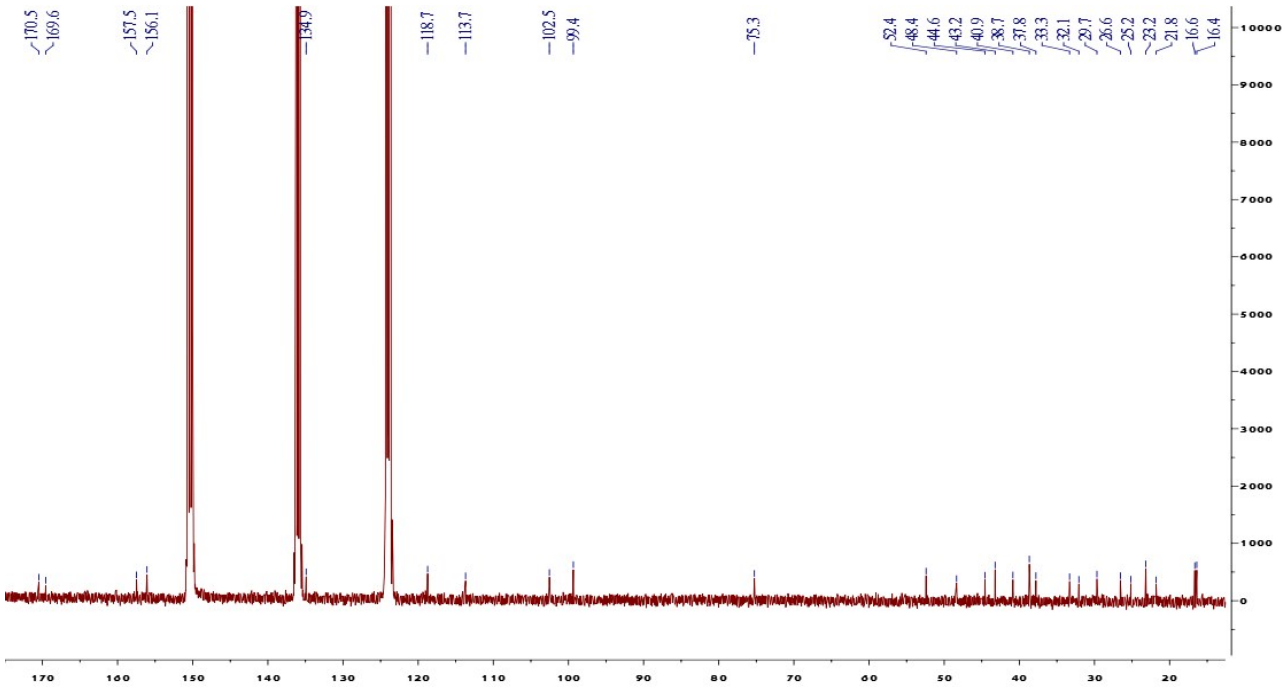


Figure S39. DEPT-90 Spectrum of Stachybonoid E (**6**) in Pyridine-d_5

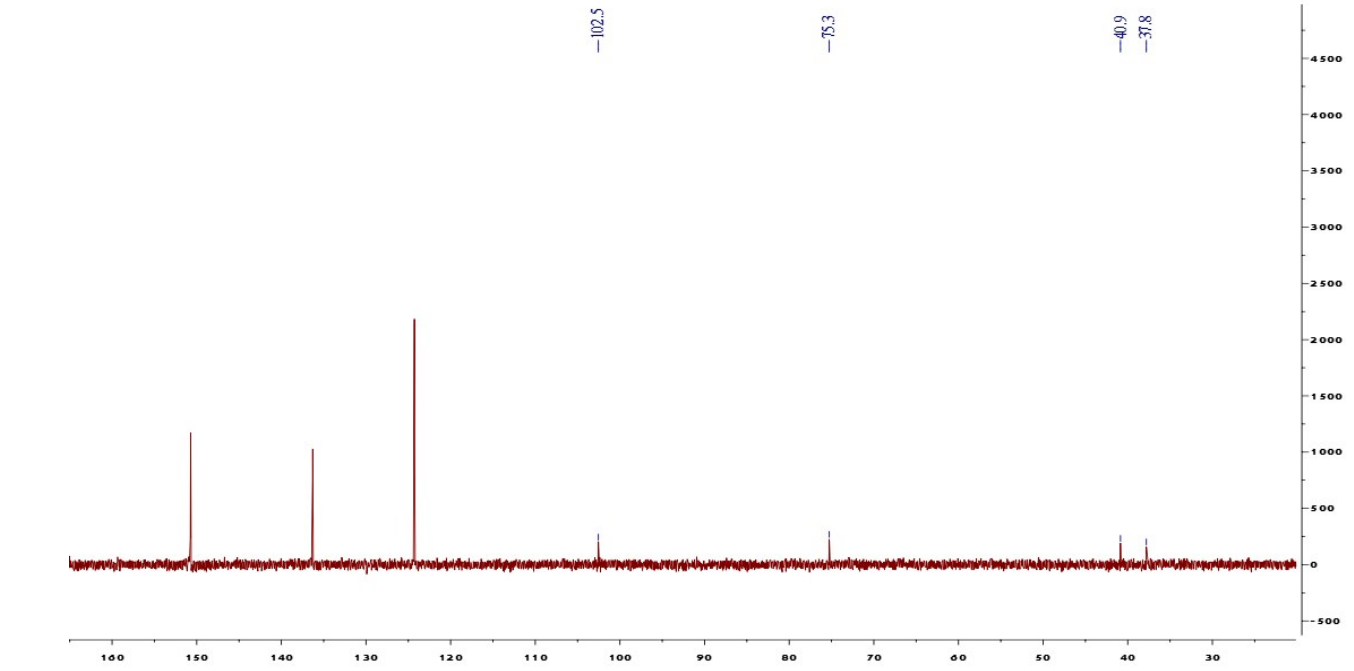


Figure S40. DEPT-135 Spectrum of Stachybonoid E (**6**) in Pyridine-d_5

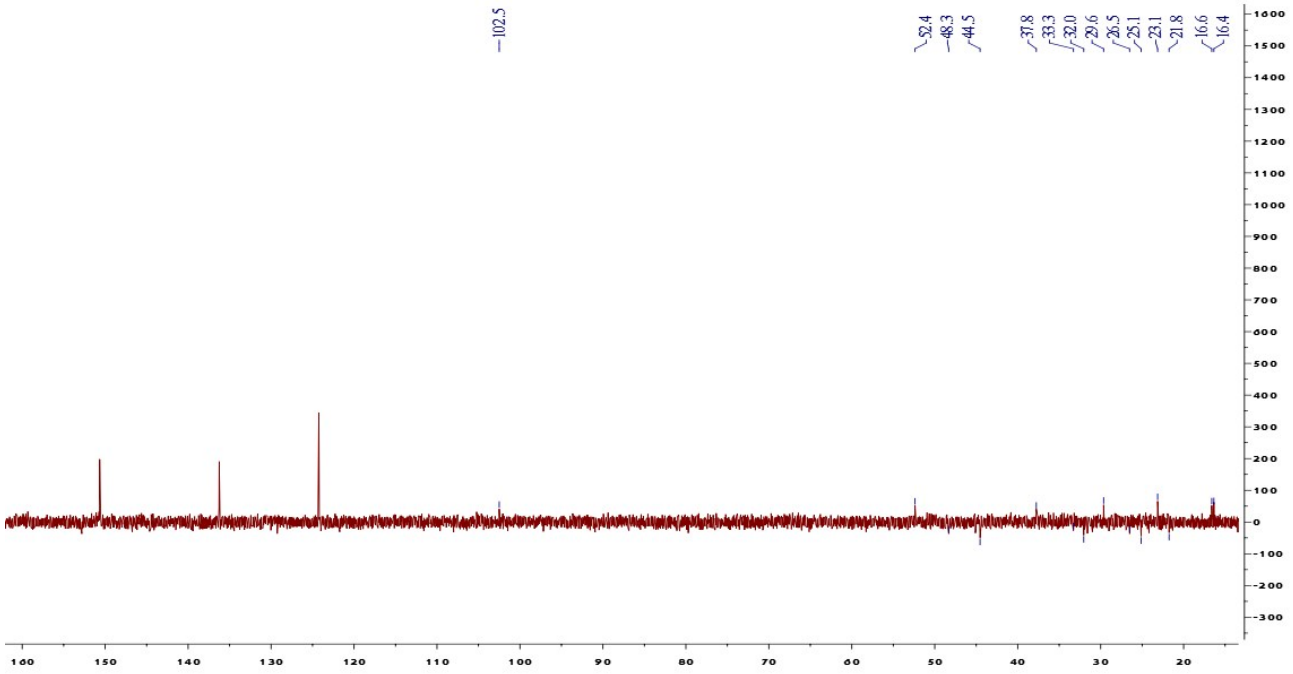


Figure S41. HSQC Spectrum of Stachybonoid E (**6**) in Pyridine-d_5

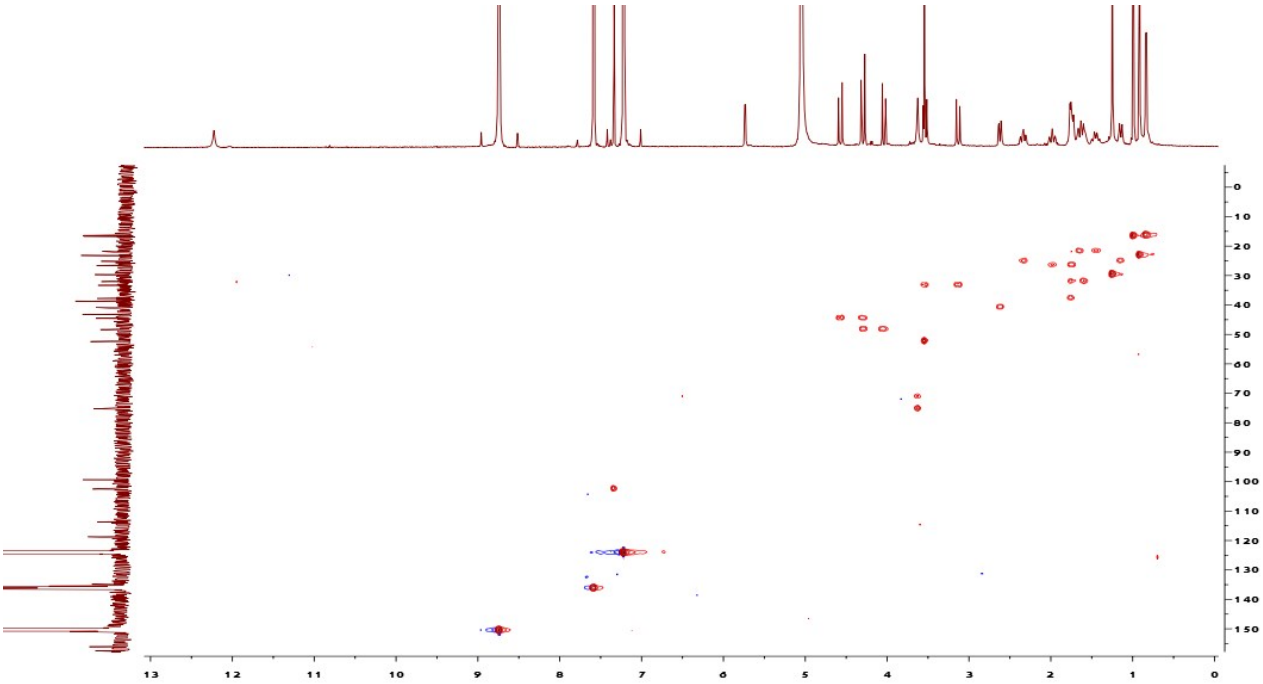


Figure S42. HMBC Spectrum of Stachybonoid E (**6**) in Pyridine-d_5

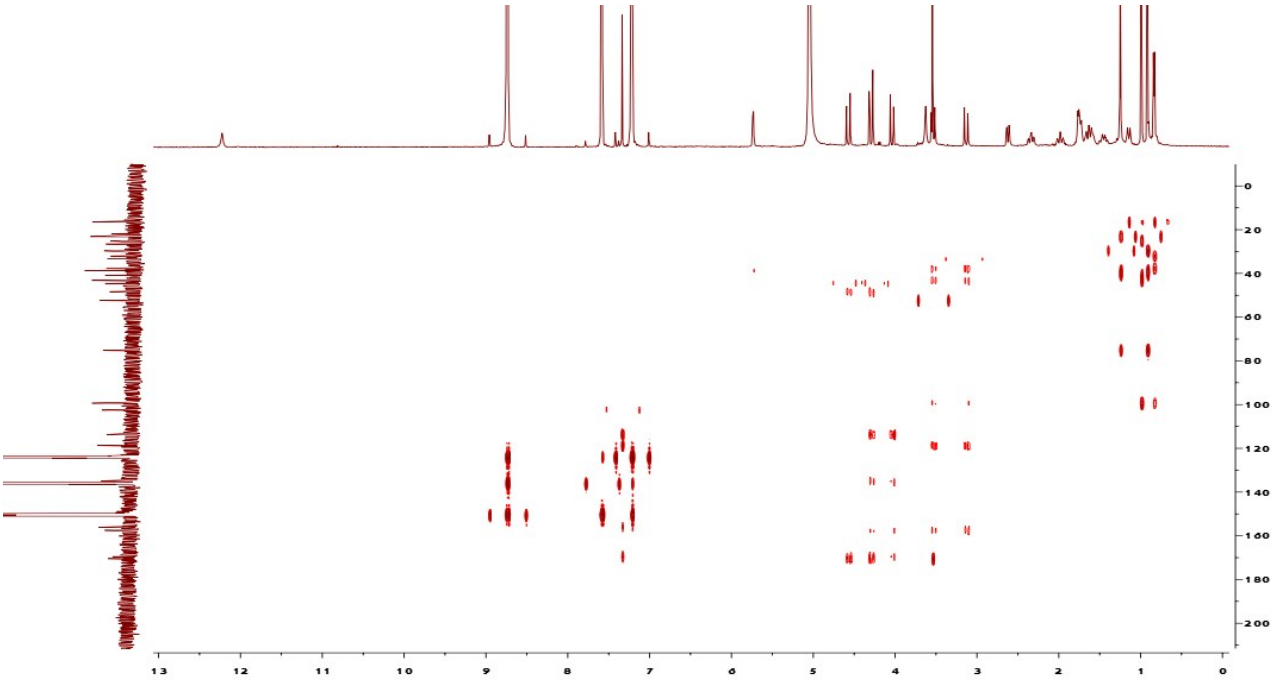


Figure S43. ^{1}H-^{1}H COSY Spectrum of Stachybonoid E (**6**) in Pyridine-d_5

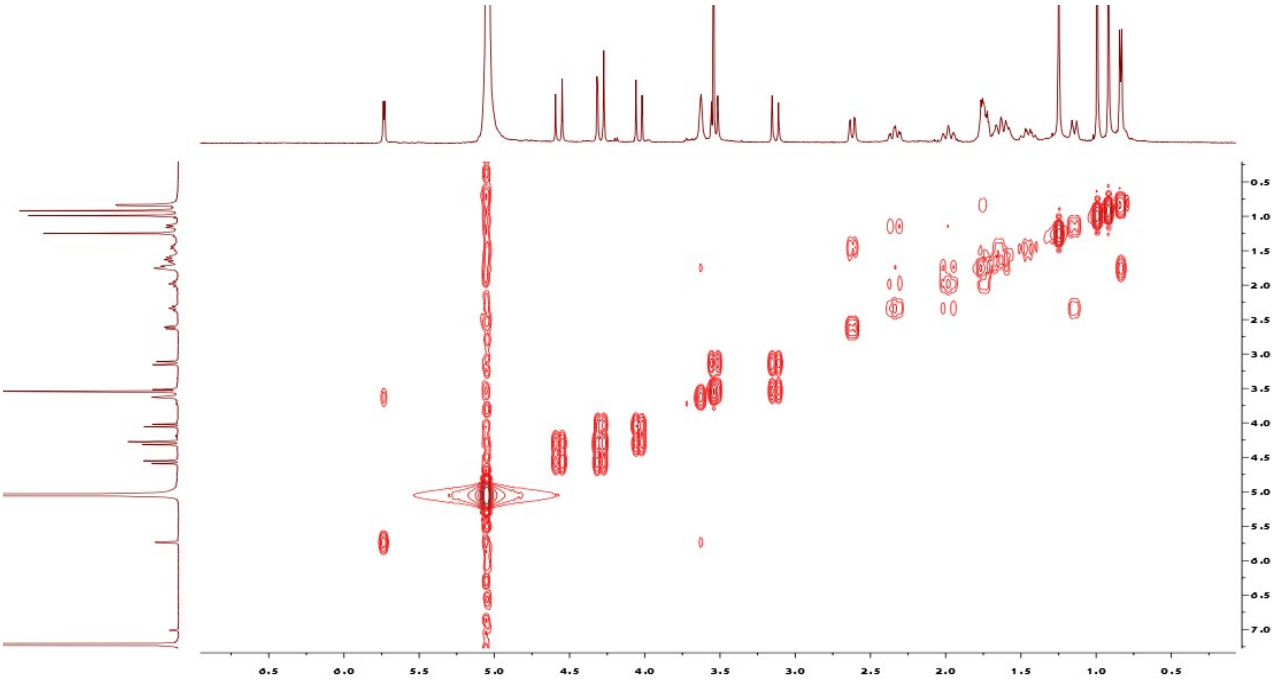


Figure S44. NOESY Spectrum of Stachybonoid E (**6**) in Pyridine-d_5

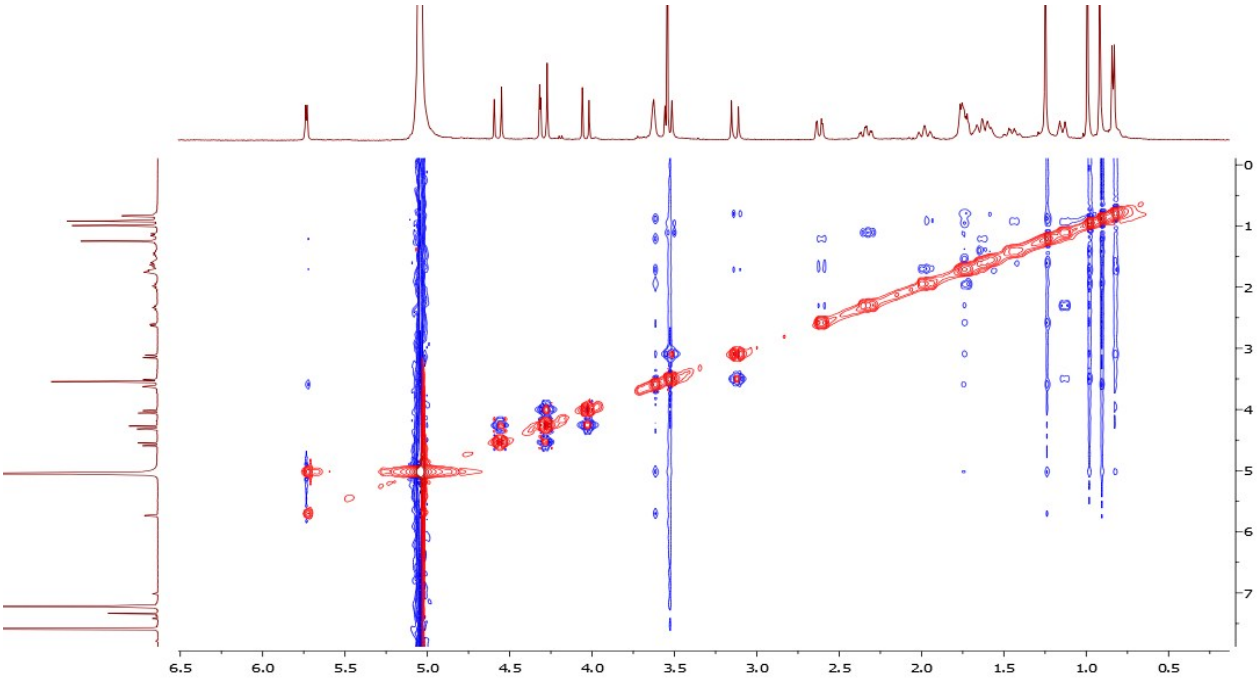
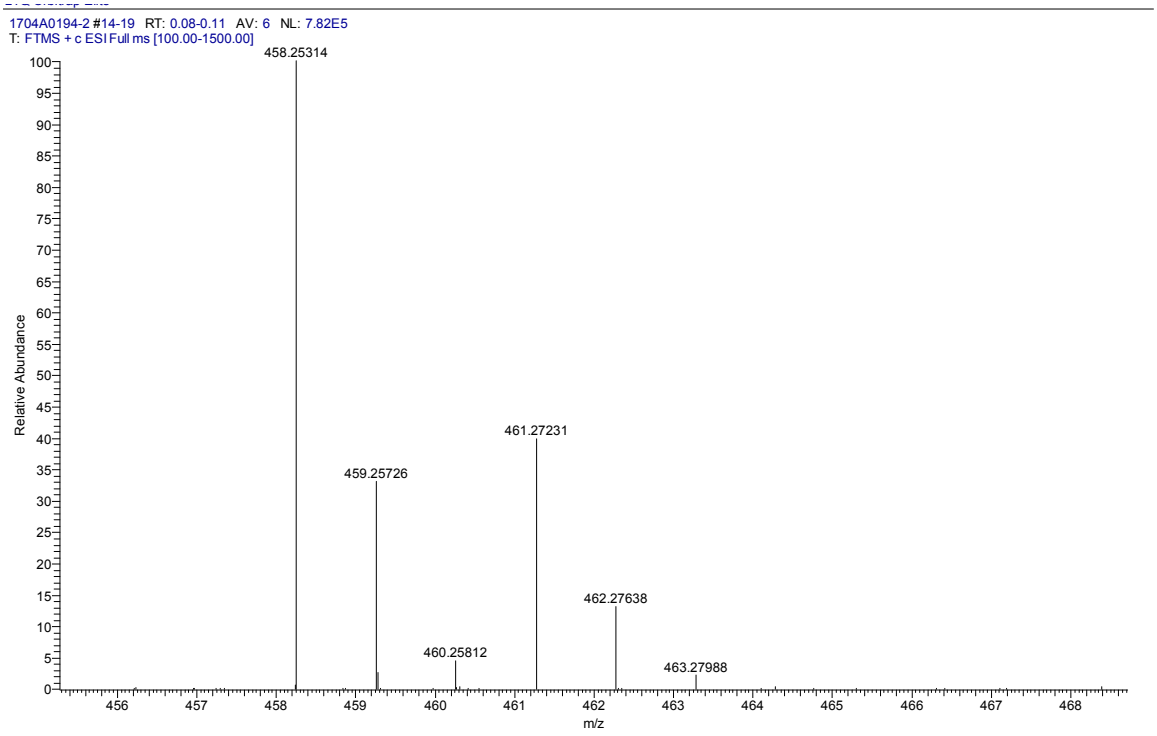


Figure S45. HR-ESIMS of Stachybonoid E (**6**)



SPECTRUM - simulation : m/z	Theo. Mass	Delta (ppm)	RDB equiv.	Composition
458.25314	458.25371	-1.25	9.5	C26 H36 O6 N

Figure S46. ^{1}H (400 MHz) NMR Spectrum of Stachybonoid F (**7**) in Pyridine-d_5

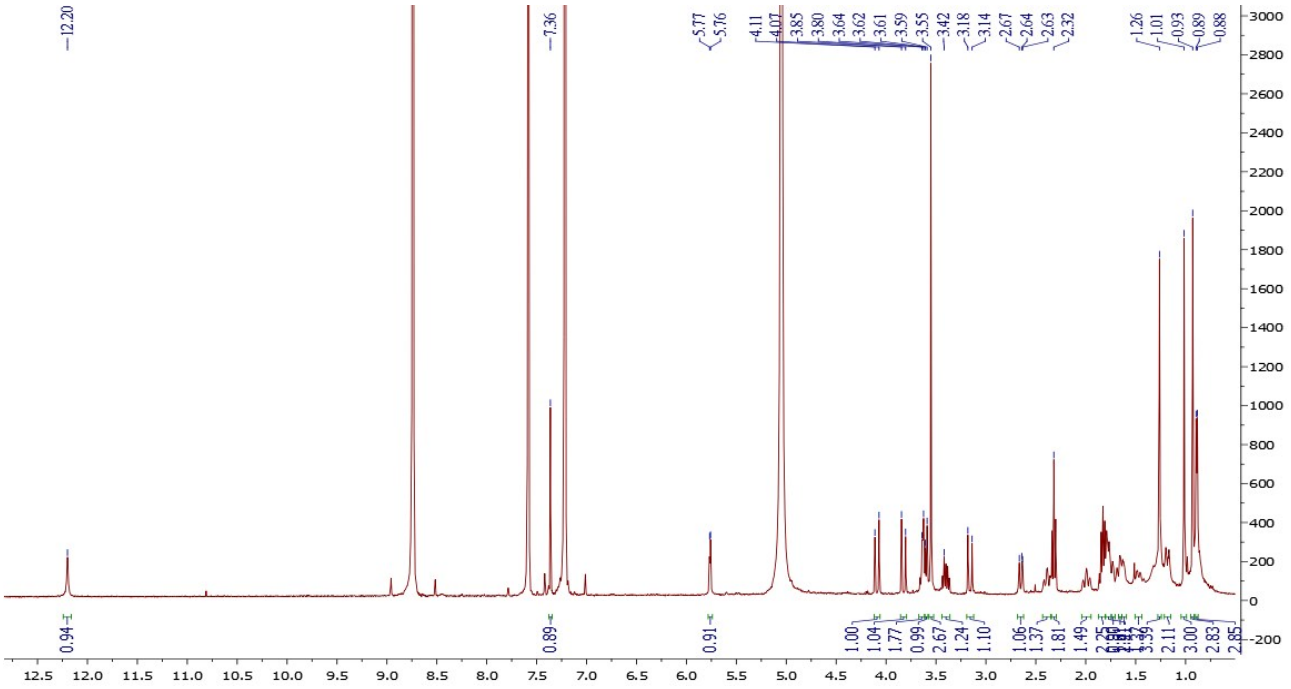


Figure S47. ^{13}C (100 MHz) NMR Spectrum of Stachybonoid F (**7**) in Pyridine-d_5

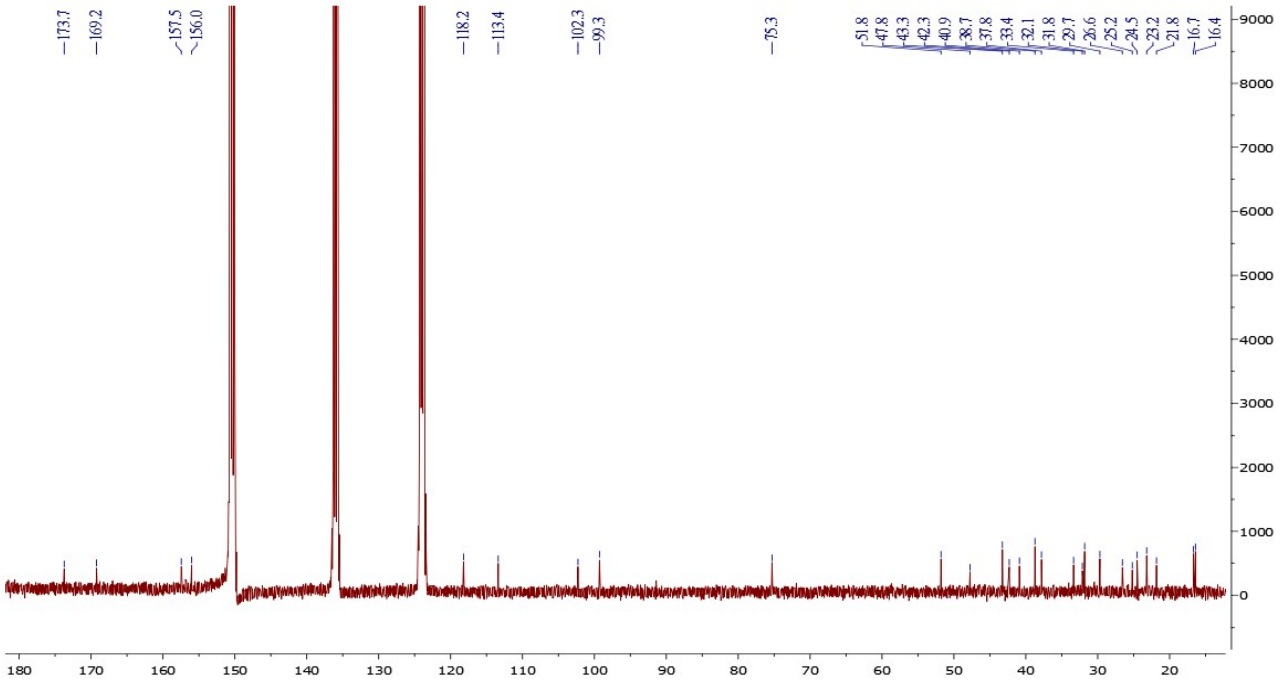


Figure S48. DEPT-90 Spectrum of Stachybonoid F (**7**) in Pyridine-d_5

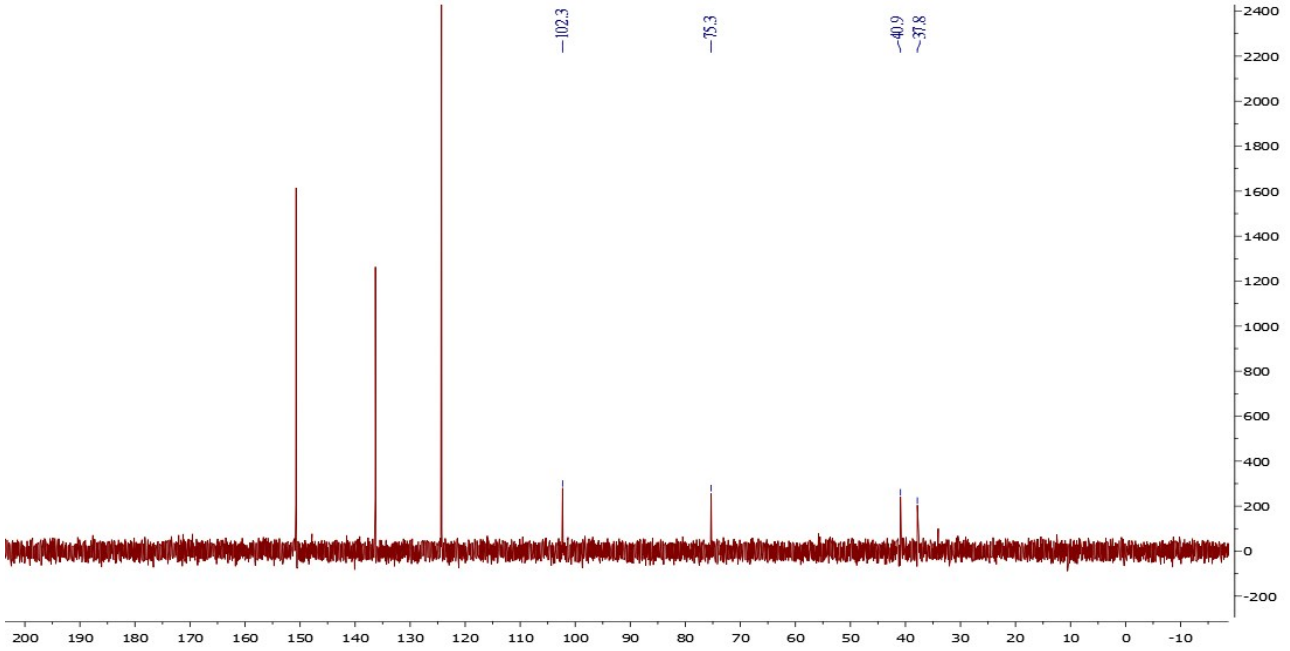


Figure S49. DEPT-135 Spectrum of Stachybonoid F (**7**) in Pyridine-d_5

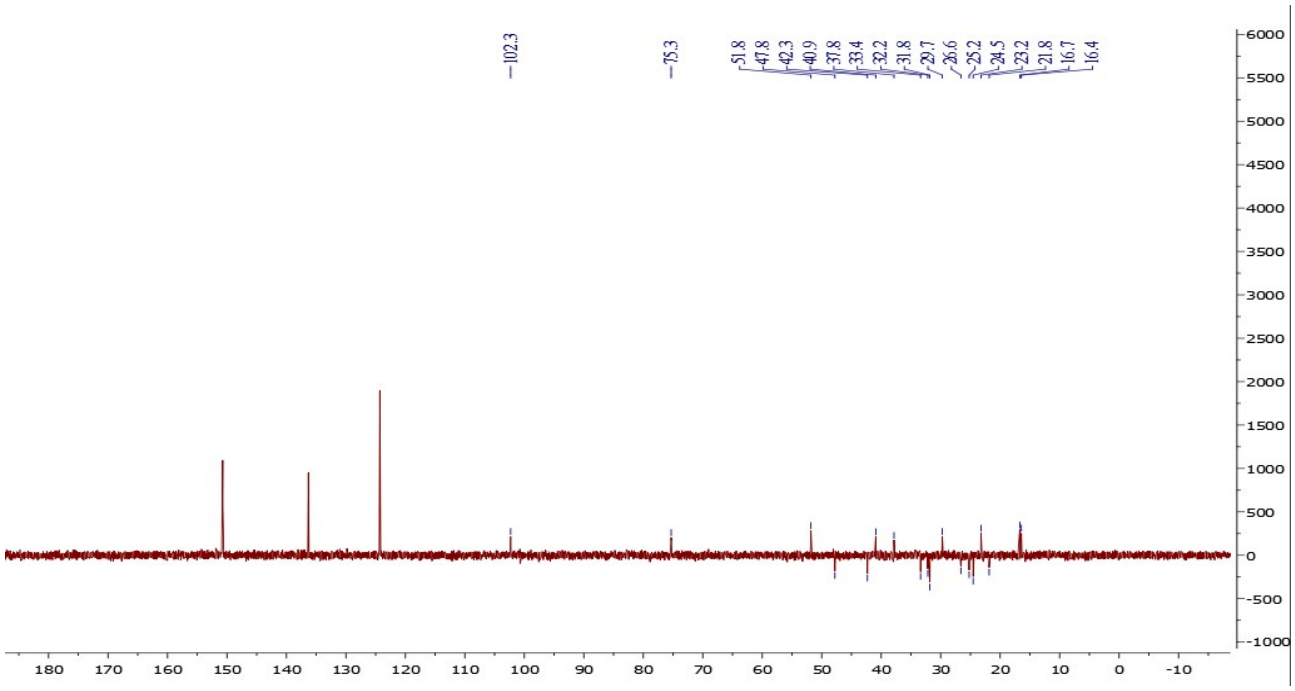


Figure S50. HSQC Spectrum of Stachybonoid F (**7**) in Pyridine-d_5

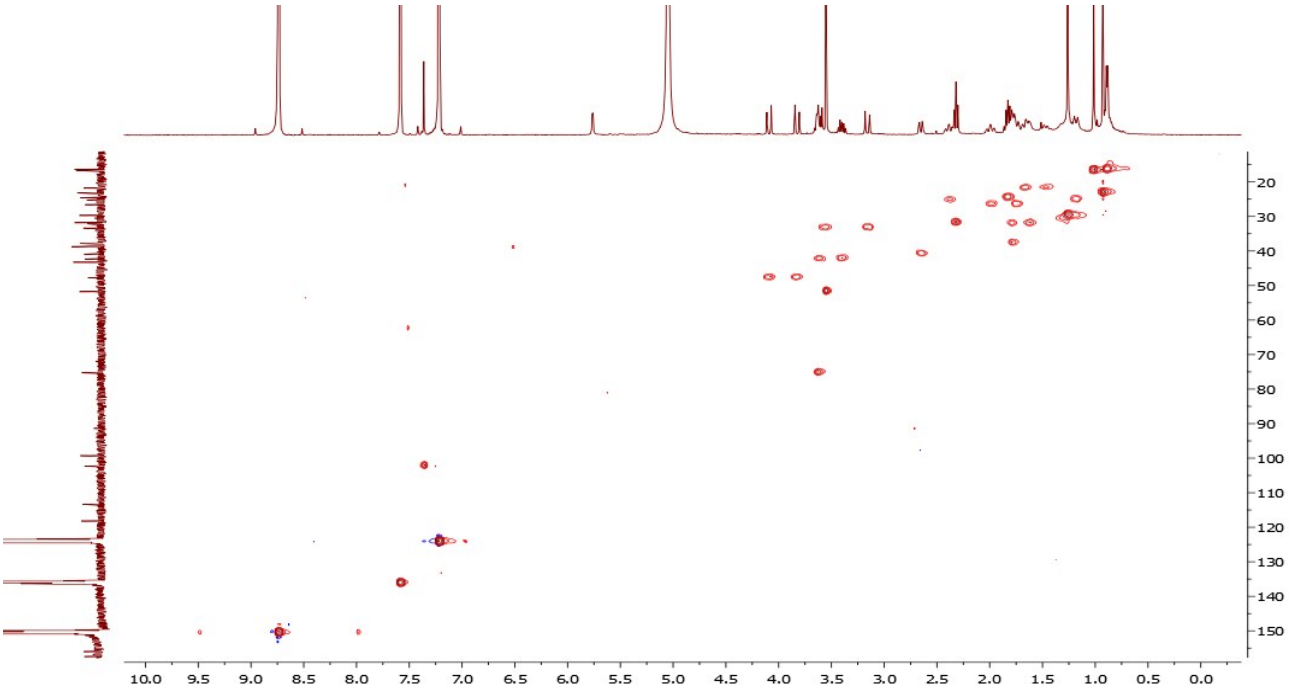


Figure S51. HMBC Spectrum of Stachybonoid F (**7**) in Pyridine-d_5

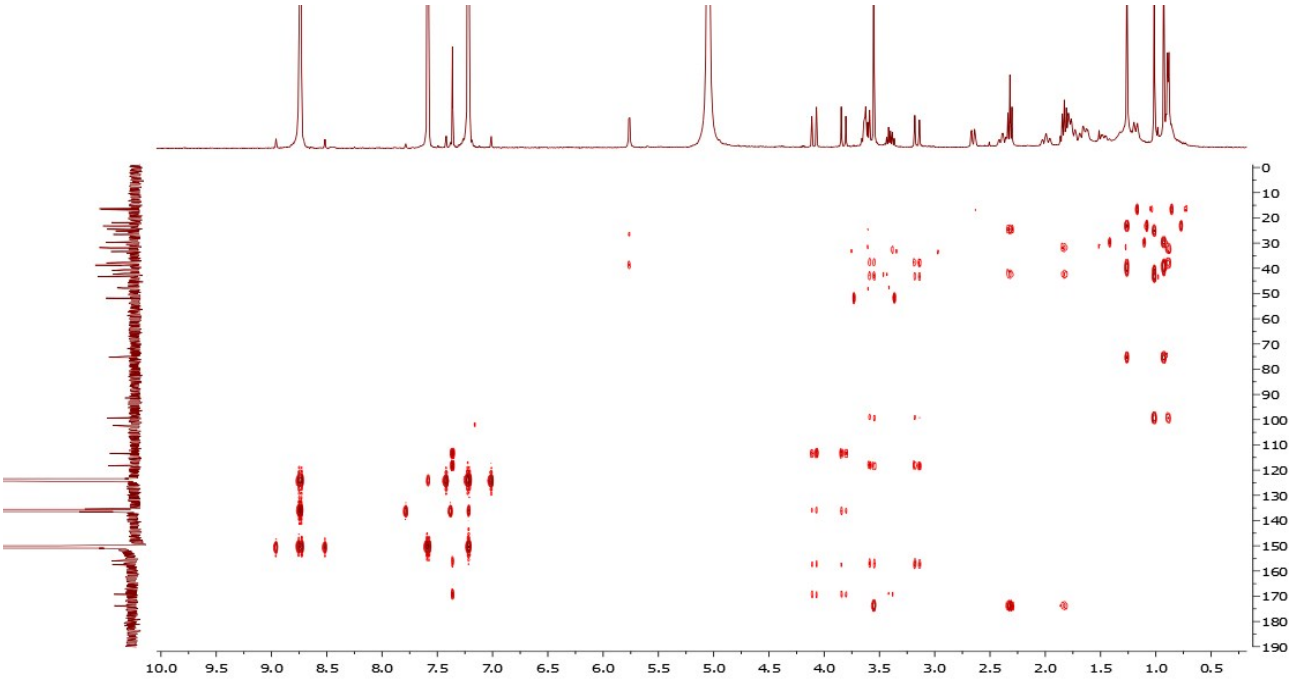


Figure S52. ^{1}H-^{1}H COSY Spectrum of Stachybonoid F (**7**) in Pyridine-d_5

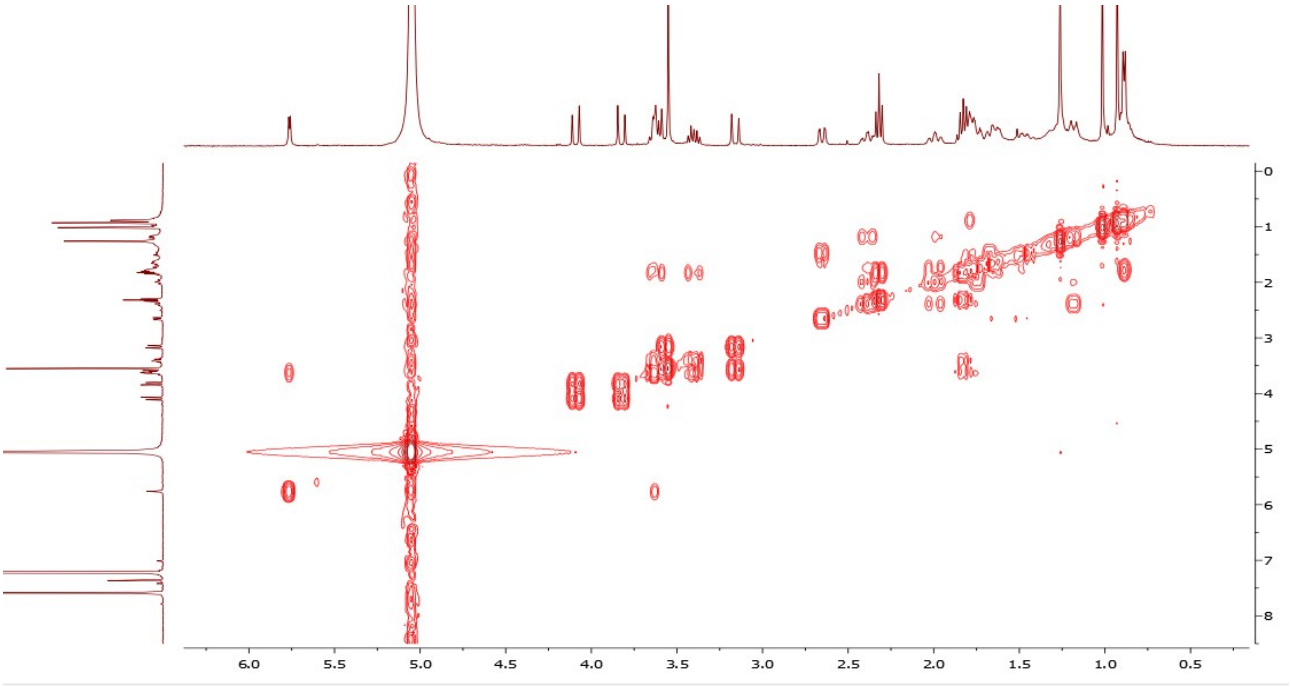


Figure S53. NOESY Spectrum of Stachybonoid F (**7**) in Pyridine-d_5

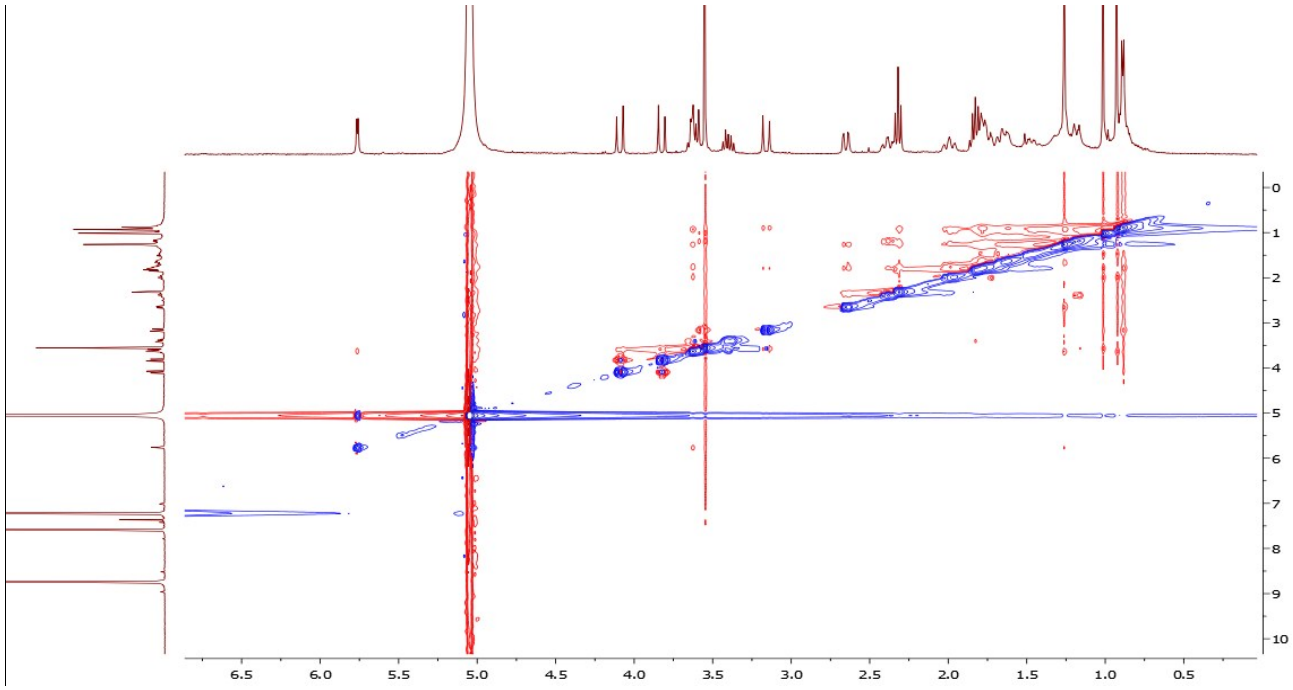
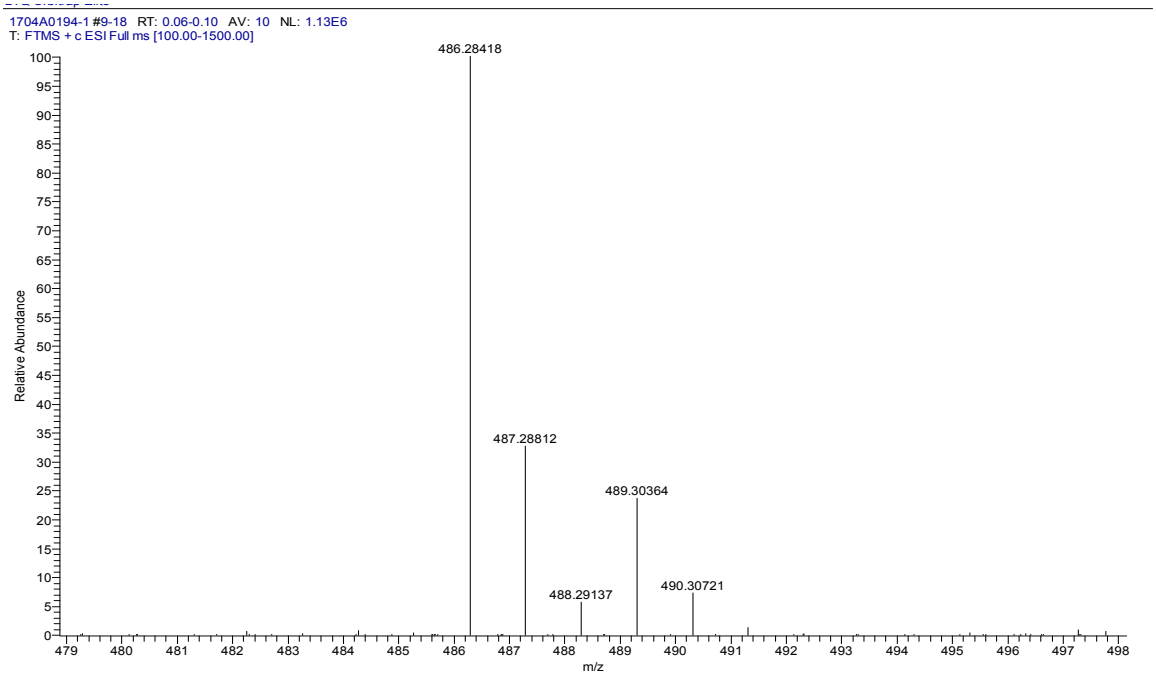


Figure S54. HR-ESIMS of Stachybonoid F (**7**)



SPECTRUM - simulation :				
m/z	Theo. Mass	Delta (ppm)	RDB equiv.	Composition
486.28418	486.28501	-1.72	9.5	C28 H40 O6 N

Figure S55. ^{1}H (400 MHz) NMR Spectrum of (S)-MTPA ester derivative (**1**a) in Pyridine-d_5

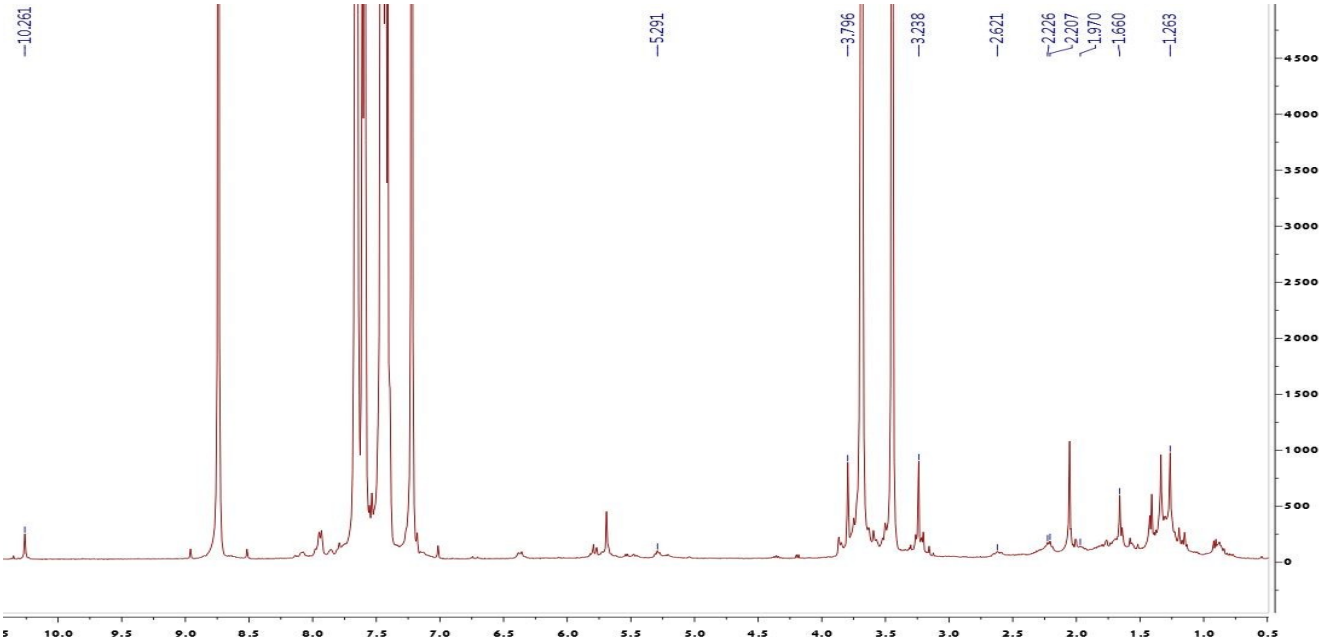


Figure S56. ^{1}H (400 MHz) NMR Spectrum of (R)-MTPA ester derivative (**1**b) in Pyridine-d_5

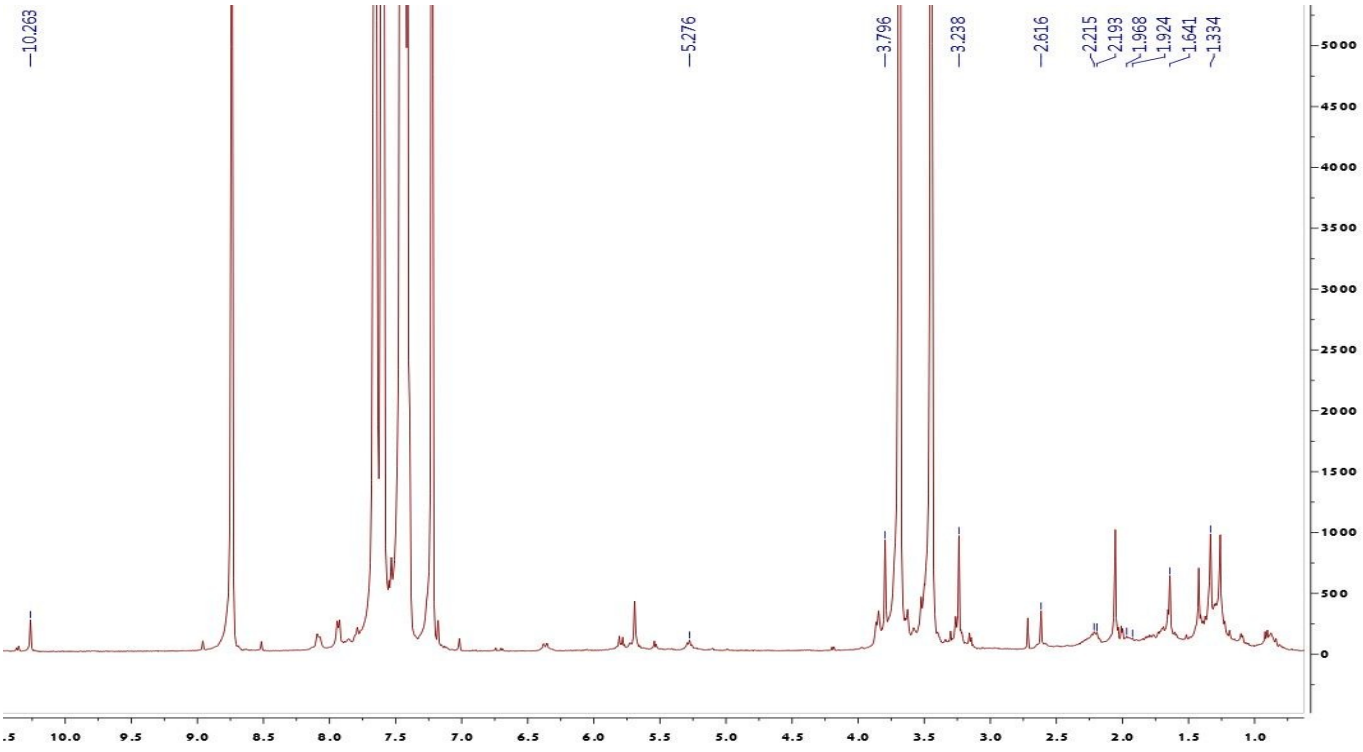


Figure S57. Structure of **8** resulting from single-crystal X-ray diffraction.Single crystal X-ray crystallographic data was obtained on a Rigaku Oxford diffractometer equipped with graphite-monochromatized Cu Kα radiation (λ = 1.54178 Å) at 298(2) K. Structure solution and refinement were performed with SHELXS-97, and all non-hydrogen atoms were refined anisotropically using the full-matrix least-squares method. All hydrogen atoms were positioned by geometric calculations and difference Fourier overlapping calculations. $C_{23}H_{30}O_5$, M = 386.49, orthorhombic crystal (0.55× 0.50 × 0.40 mm), colorless block, space group P212121; unit cell dimensions a = 10.88250(10) Å, b = 13.45840(10) Å, c = 13.64720(10) Å, V = 1998.78 (3) Å^3; Z = 40; a total of 3657 unique reflections [R(int) = 0.0178] was measured, of which 3657 were observed ($|F|^2 \geq 2\sigma|F|^2$); the final refinement gave R_1 = 0.0278, $wR2$ = 0.0709, and S = 1.078; Flack parameter = 0.00(3). Crystallographic data for the structure of **8** have been submitted to the Cambridge Crystallographic Data Centre as supplementary publication CCDC 1563788.)

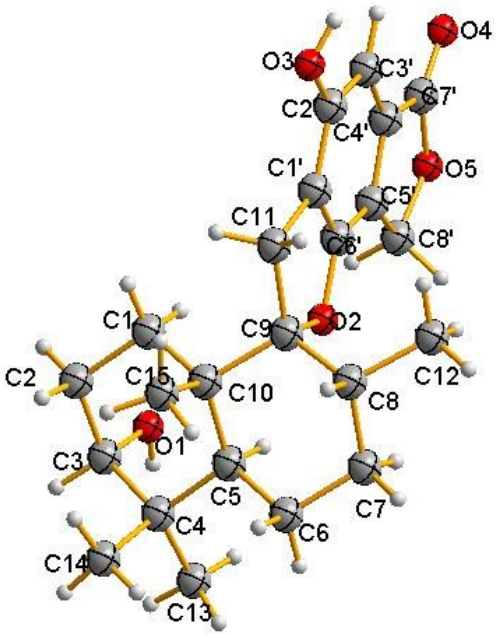


Figure S58. The dose-response curves for NO production of compounds **4**, **7** and **8**