Supporting Information

Sporochartines A-E, A New family of Natural Products from the Marine Fungus *Hypoxlon monticulosum* Isolated from a *Sphaerocladina* Sponge

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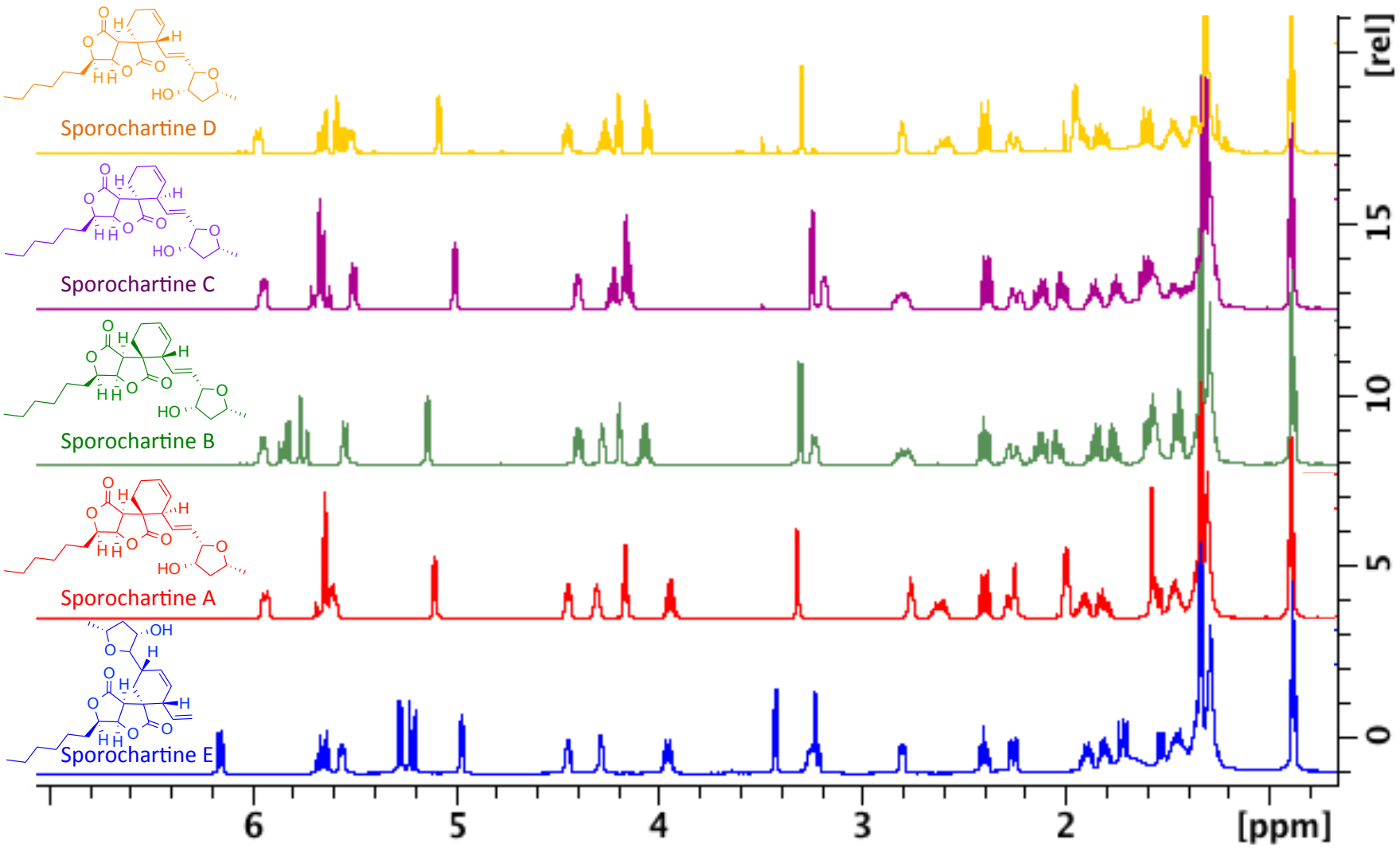
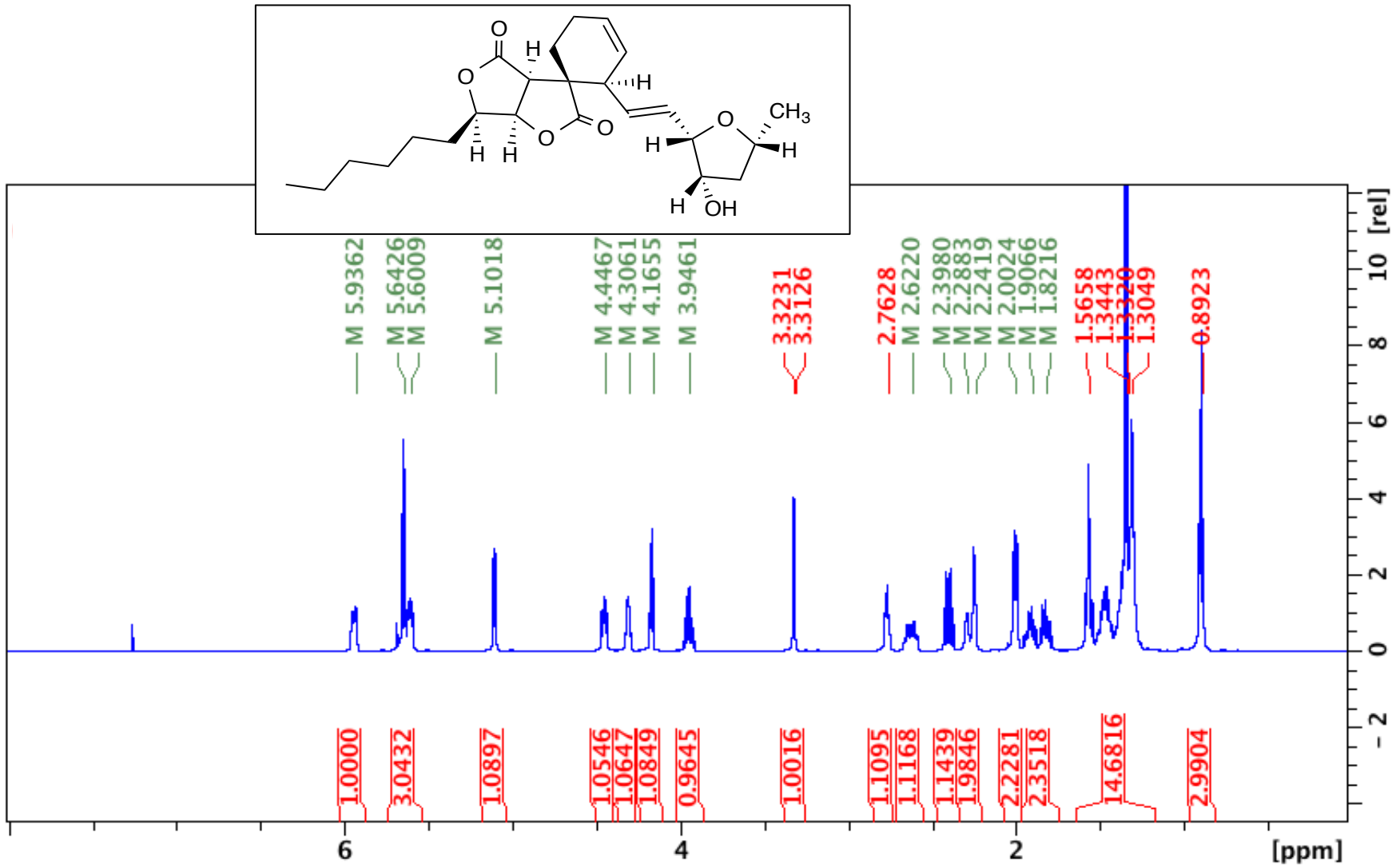
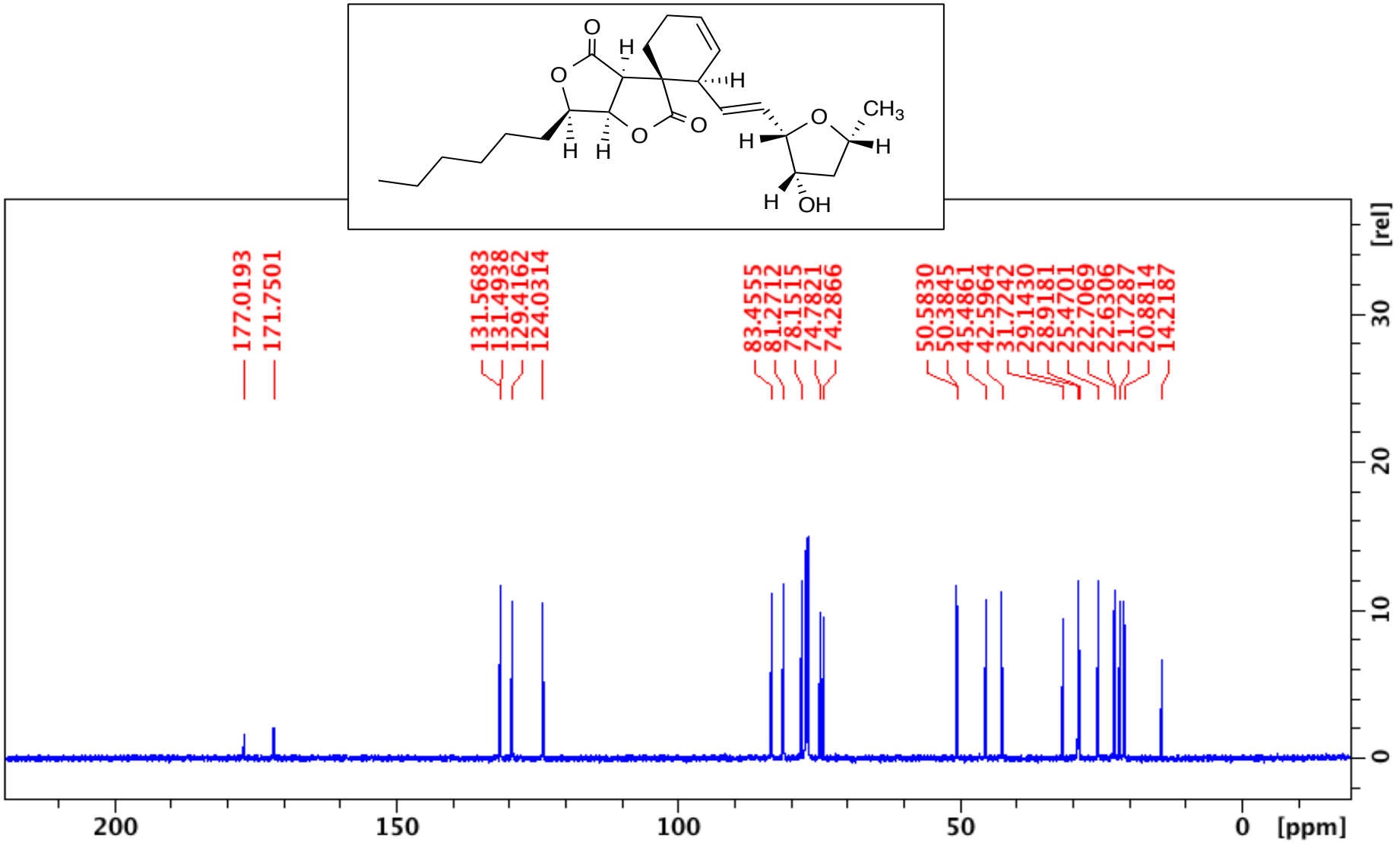
S1. ^{1}H NMR spectrum of sporochartines A-E in $CDCl_3$



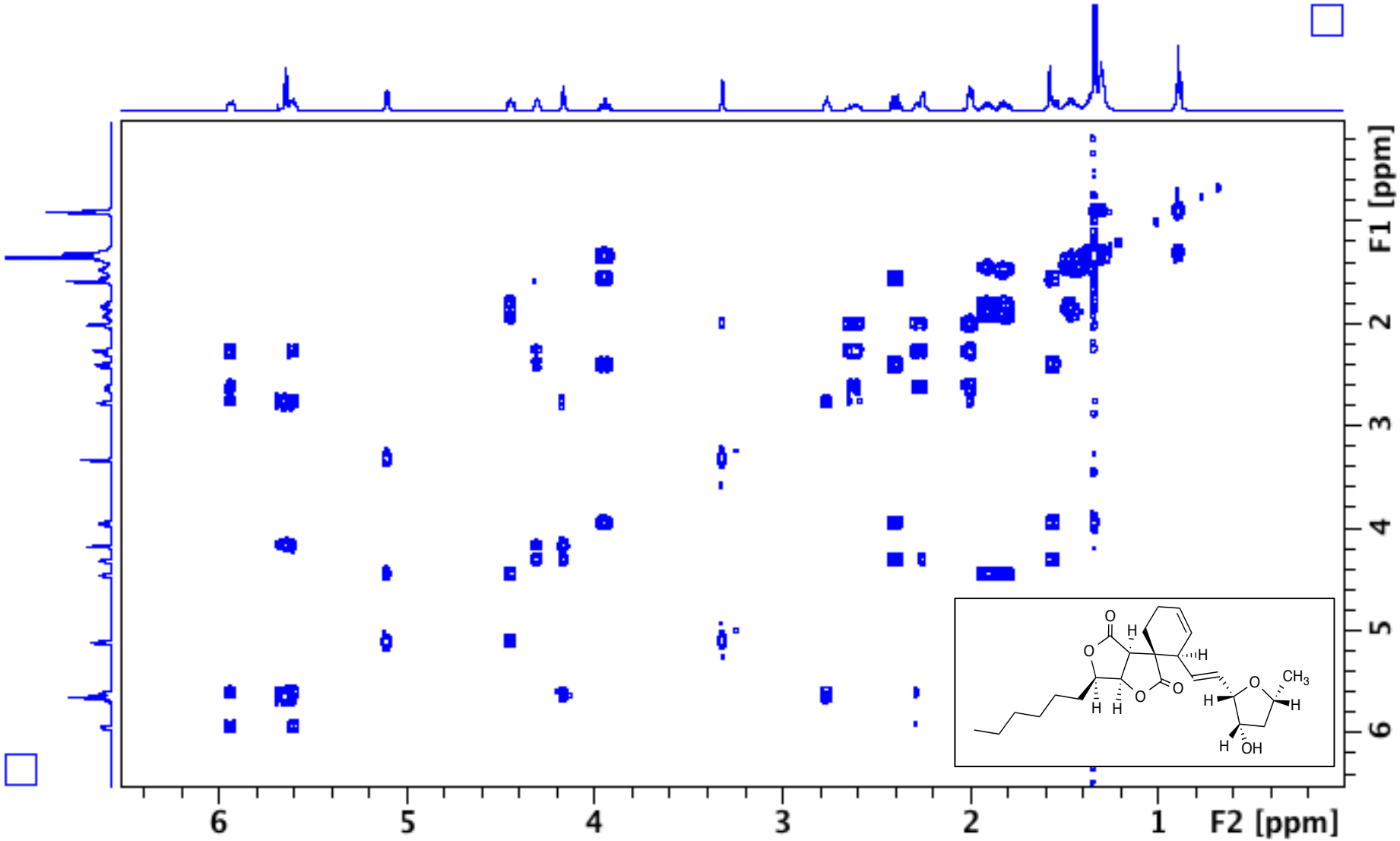
S2. ^{1}H NMR spectrum of sporochartine A (**1**) in $CDCl_3$ (500 MHz).



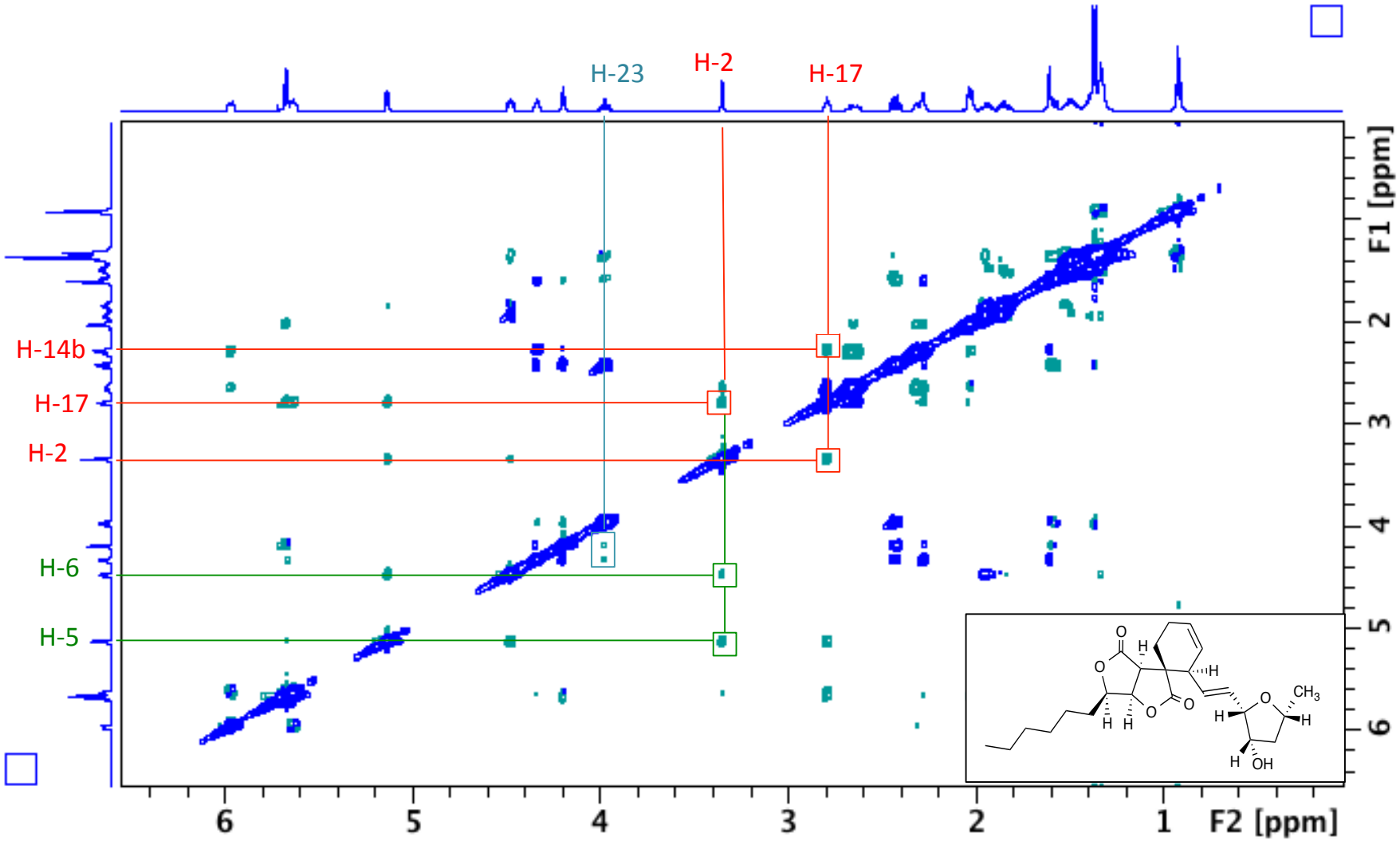
S3. ^{13}C NMR spectrum of sporochartine A (**1**) in $CDCl_3$ (125 MHz).



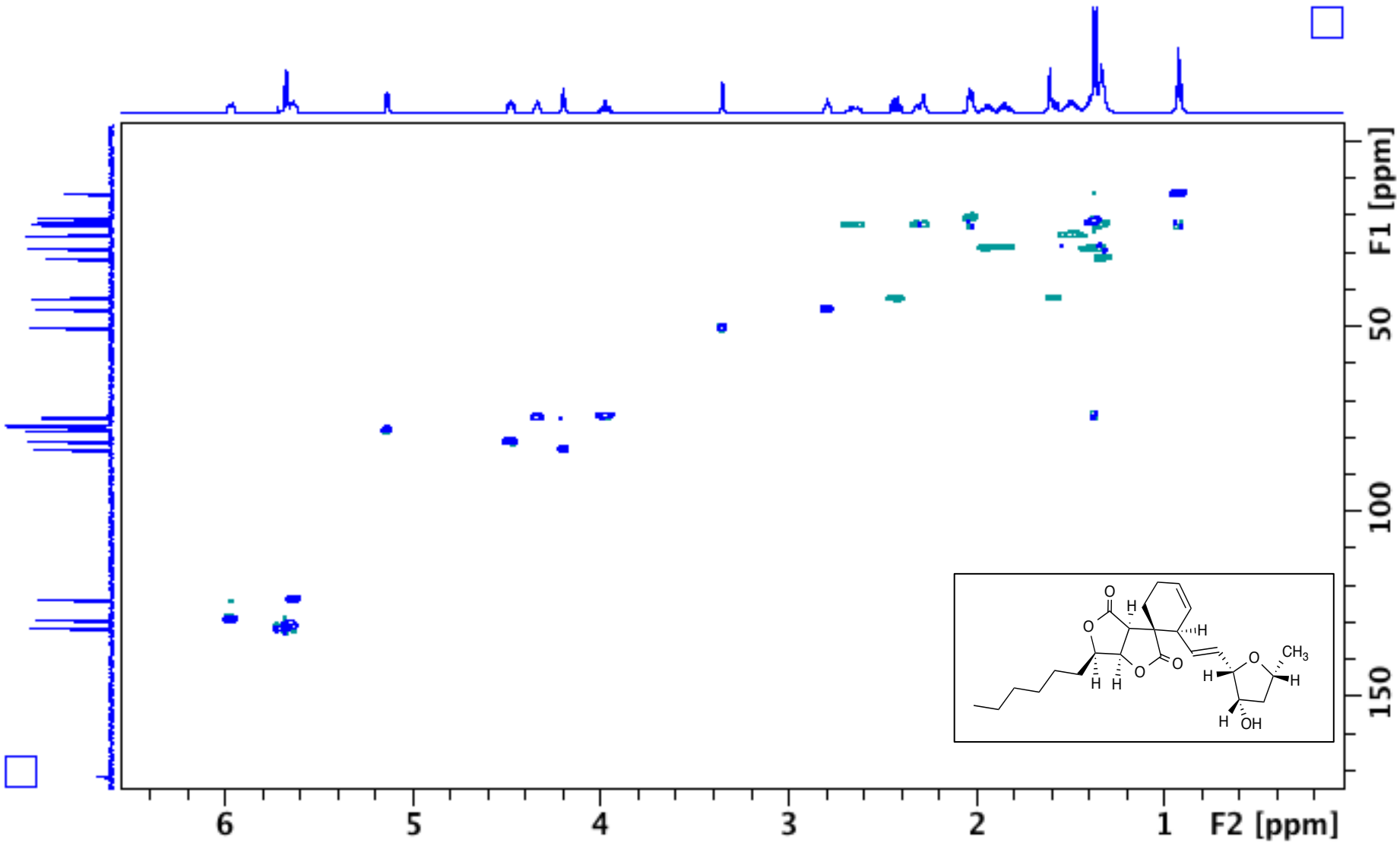
S4. ^{1}H-^{1}H COSY NMR spectrum of sporochartine A (**1**) in $CDCl_3$ (500 MHz).



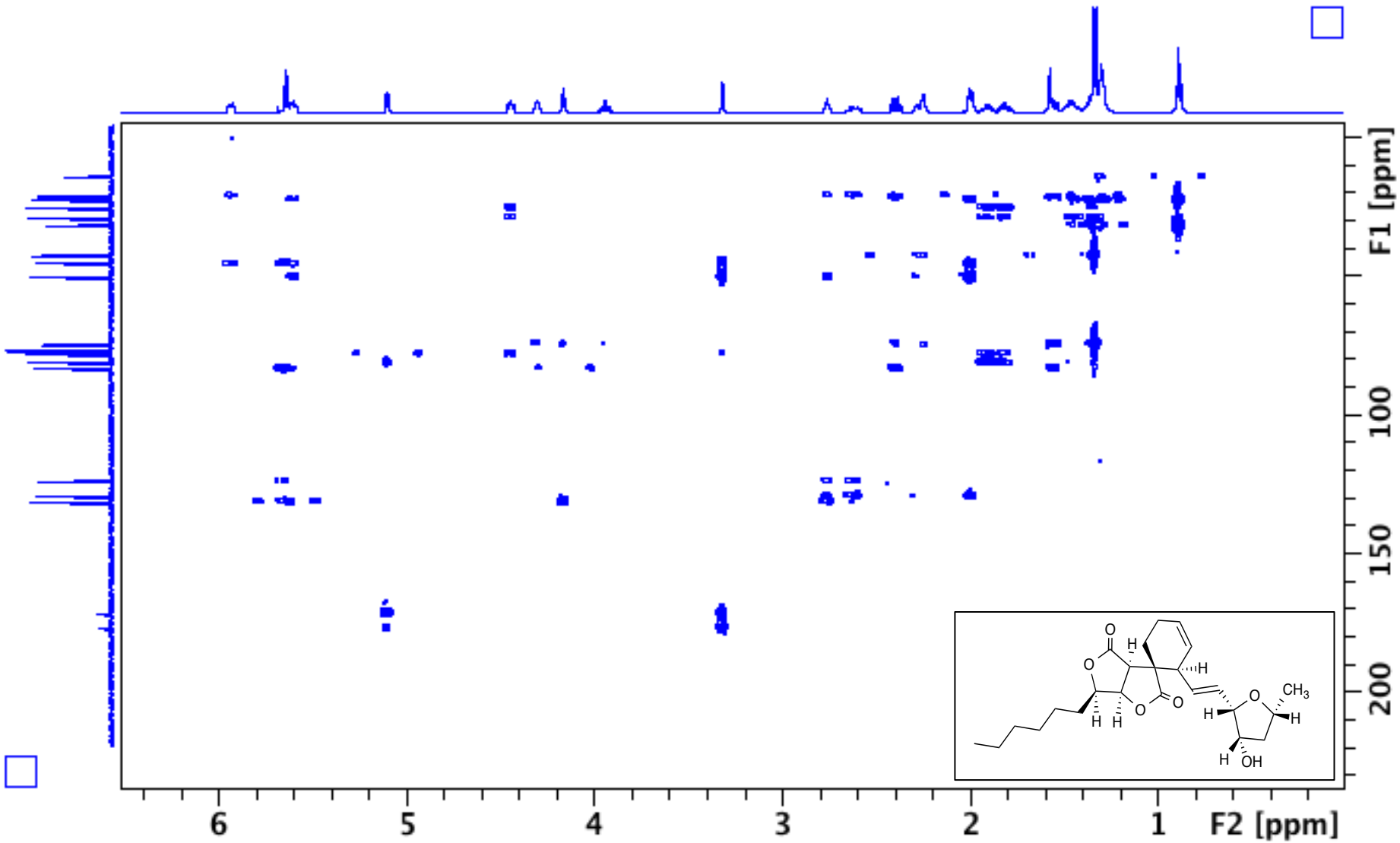
S5. ^{1}H-^{1}H ROESY NMR spectrum of sporochartine A (**1**) in $CDCl_3$ (500 MHz).



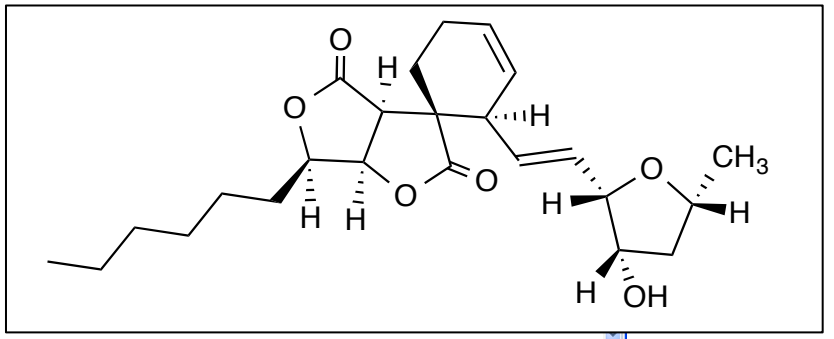
S6. HSQC NMR spectrum of sporochartine A (**1**) in $CDCl_3$ (500 MHz).



S7. ^{1}H-^{13}C HMBC NMR spectrum of sporochartine A (**1**) in $CDCl_3$ (500 MHz).

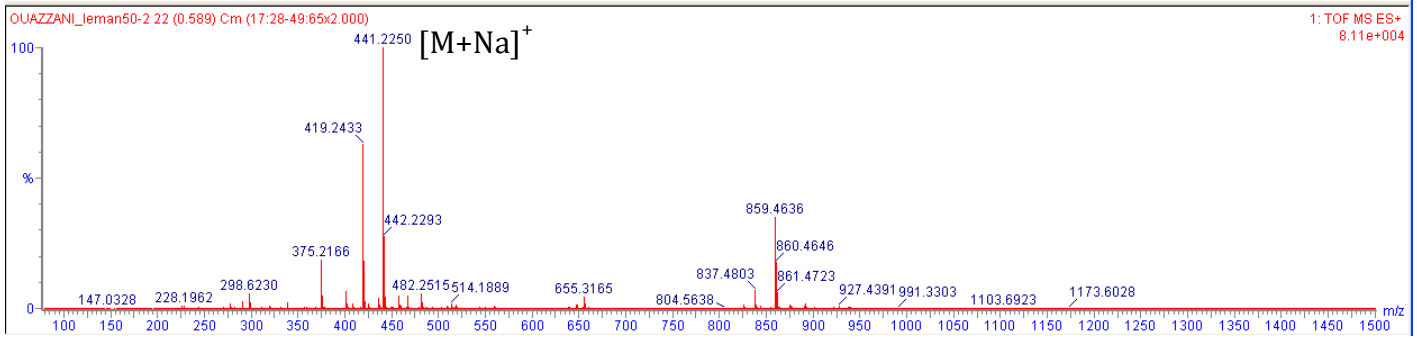


S8. ESIHRMS spectrum of sporochartine A (**1**) in CH_3OH

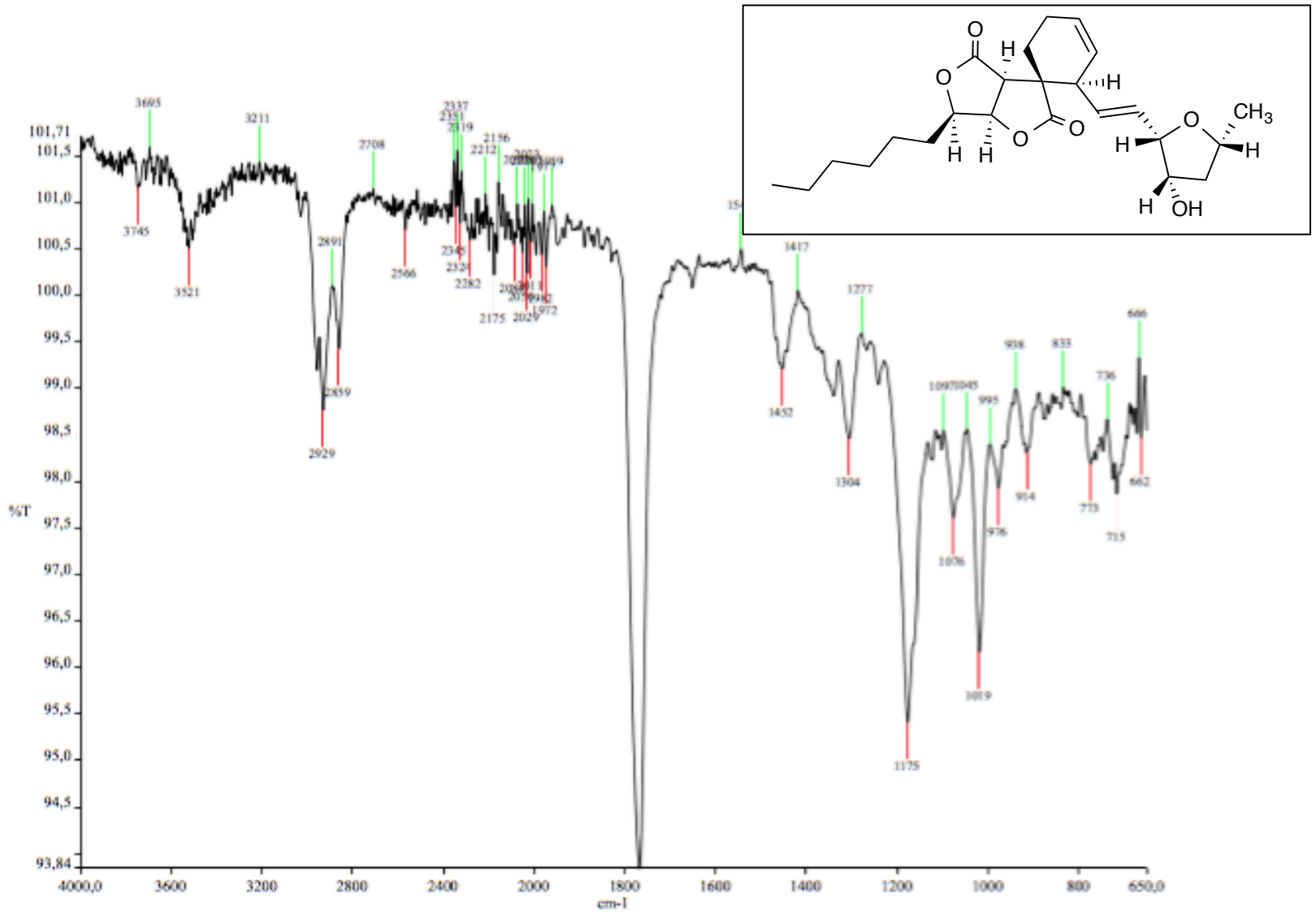


Single Mass Analysis
Tolerance = 5.0 mDa / DBE: min = -1.5, max = 50.0
Element prediction: Off
Number of isotope peaks used for i-FIT = 3
Monoisotopic Mass, Even Electron Ions
1351 formula(e) evaluated with 12 results within limits (all results (up to 1000) for each mass)
Elements Used:

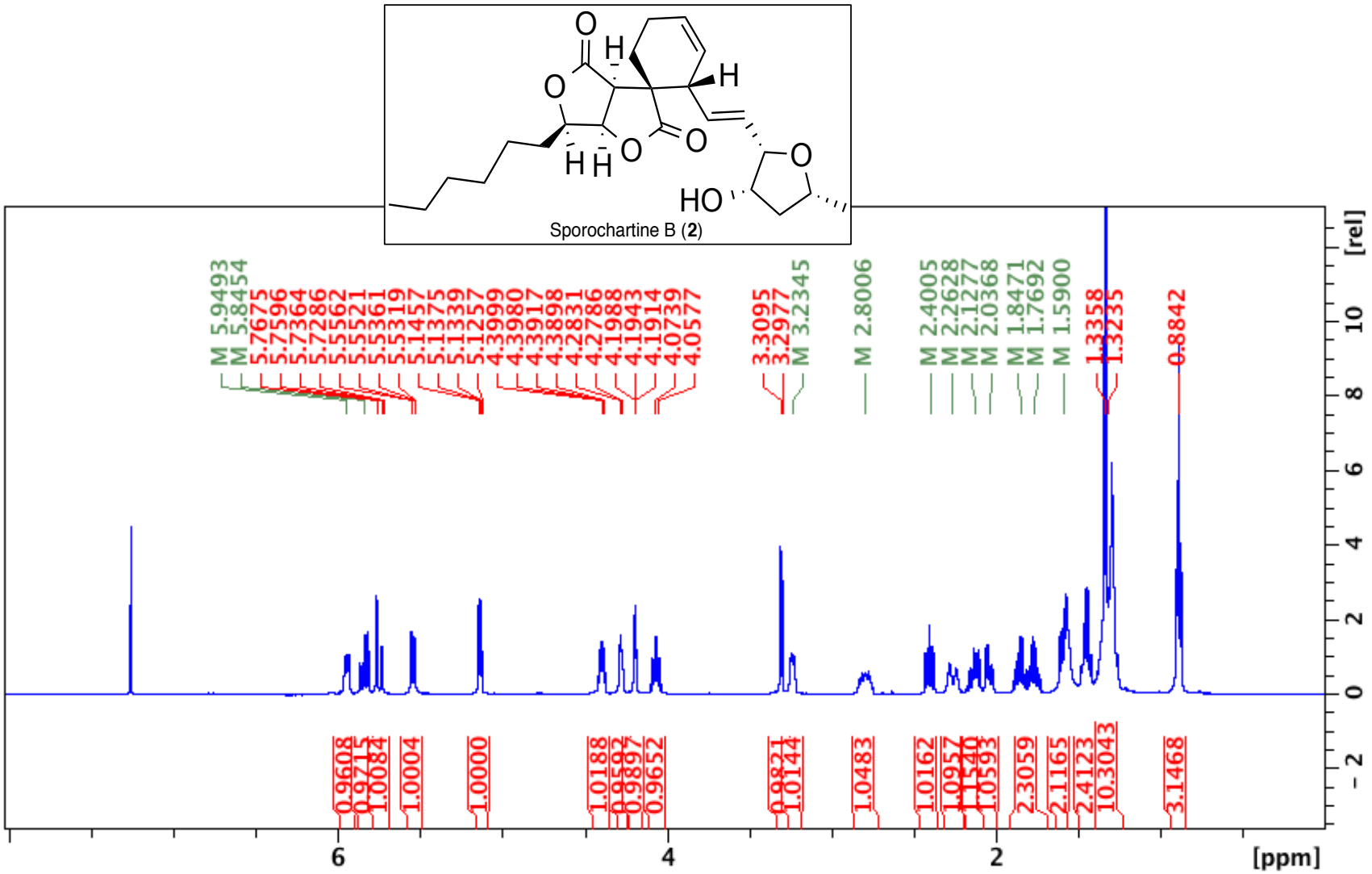
Mass	Calc. Mass	mDa	PPM	DBE	Formula	i-FIT	i-FIT (Norm)	C	H	N	O	Na
441.2250	441.2253	-0.3	-0.7	7.5	C24 H34 O6 Na	478.2	0.3	24	34		6	1
	441.2245	0.5	1.1	6.5	C6 H22 N22 O Na	493.2	15.2	6	22	22	1	1
	441.2258	-0.8	-1.8	0.5	C9 H30 N12 O7 Na	490.2	12.3	9	30	12	7	1
	441.2240	1.0	2.3	13.5	C21 H26 N10 Na	480.1	2.1	21	26	10		1
	441.2266	-1.6	-3.6	12.5	C25 H30 N4 O2 Na	480.1	2.2	25	30	4	2	1
	441.2231	1.9	4.3	1.5	C5 H26 N18 O5 Na	493.0	15.1	5	26	18	5	1
	441.2271	-2.1	-4.8	5.5	C10 H26 N16 O3 Na	490.2	12.3	10	26	16	3	1
	441.2226	2.4	5.4	8.5	C20 H30 N6 O4 Na	482.0	4.0	20	30	6	4	1
	441.2285	-3.5	-7.9	-0.5	C13 H34 N6 O9 Na	487.6	9.7	13	34	6	9	1
	441.2213	3.7	8.4	3.5	C19 H34 N2 O8 Na	484.3	6.4	19	34	2	8	1
	441.2204	4.6	10.4	2.5	C H22 N24 O3 Na	495.5	17.6	1	22	24	3	1
	441.2298	-4.8	-10.9	4.5	C14 H30 N10 O5 Na	487.8	9.9	14	30	10	5	1



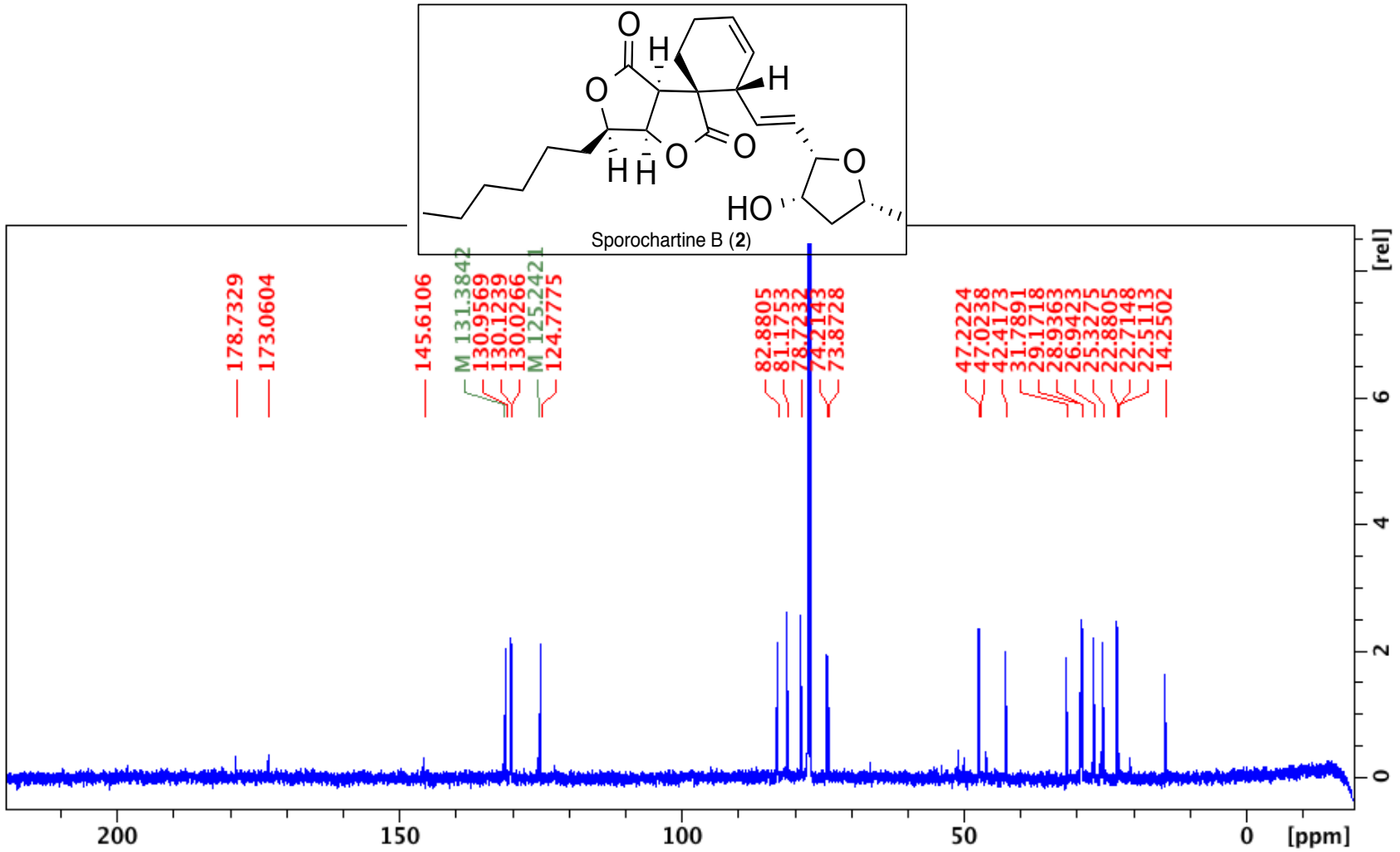
S9. IR spectrum of sporochartine A (**1**)



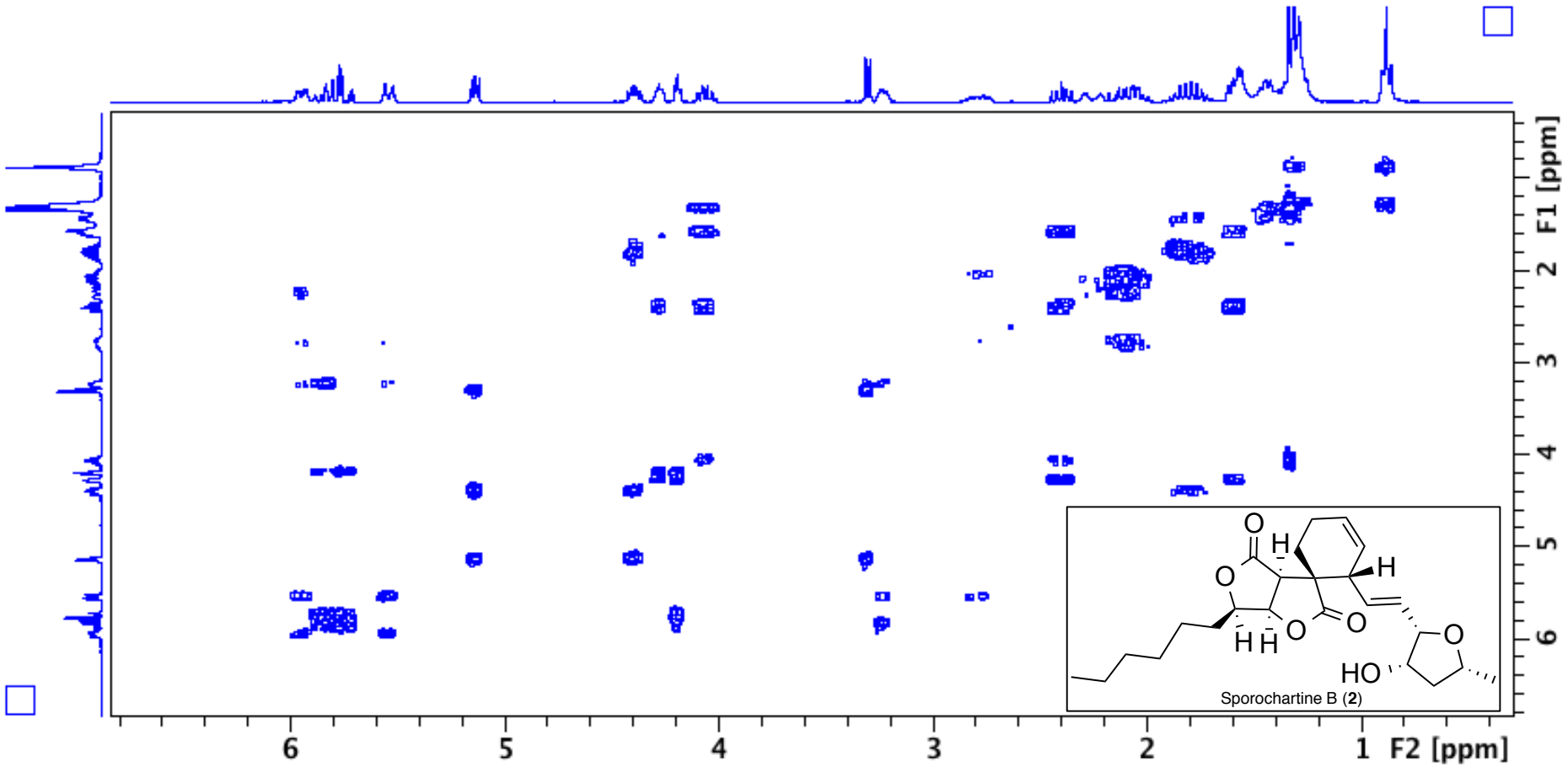
S10. ^{1}H NMR spectrum of sporochartine B (**2**) in $CDCl_3$ (500 MHz).



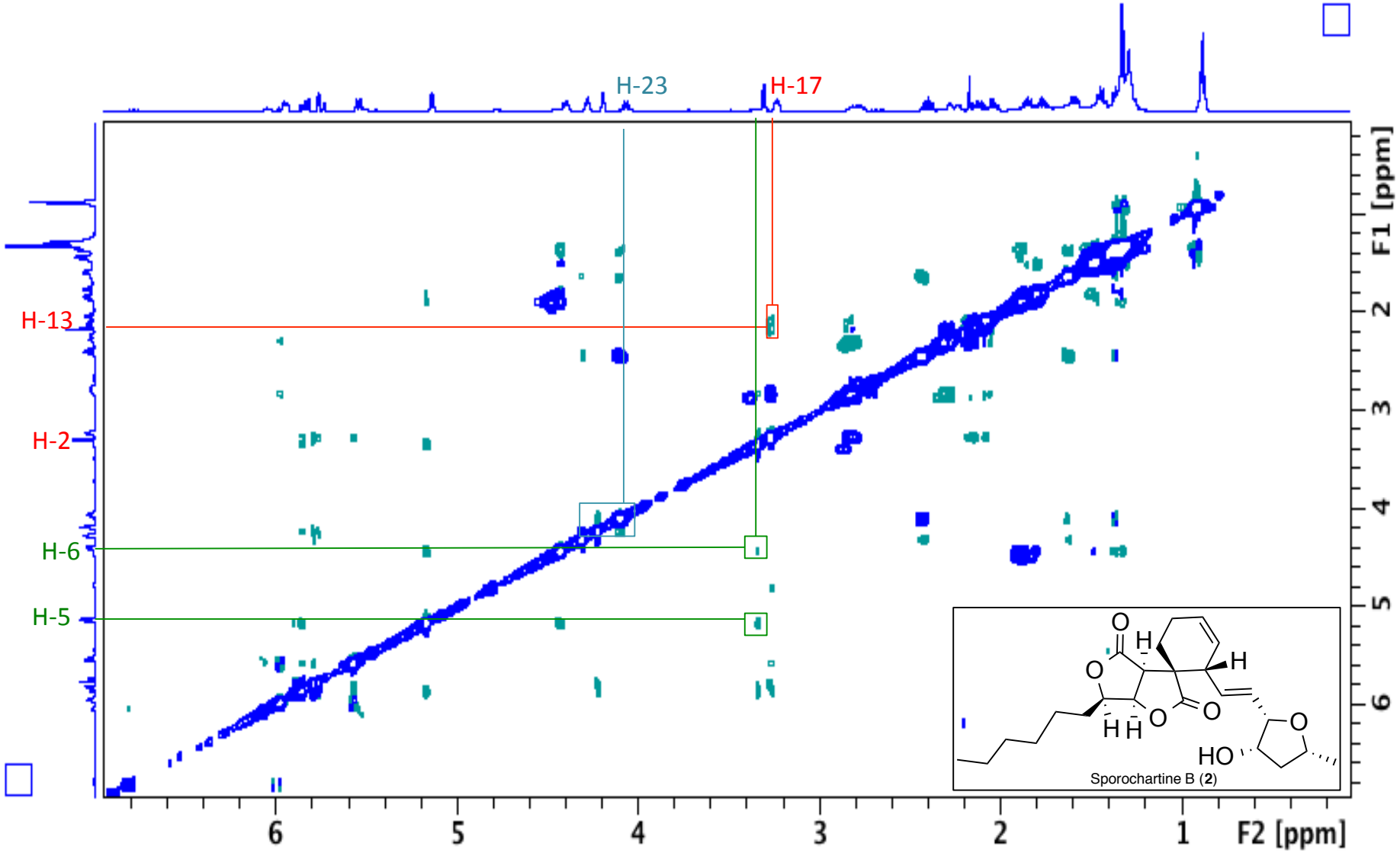
S11. ^{13}C NMR spectrum of sporochartine B (**2**) in in $CDCl_3$ (150 MHz).



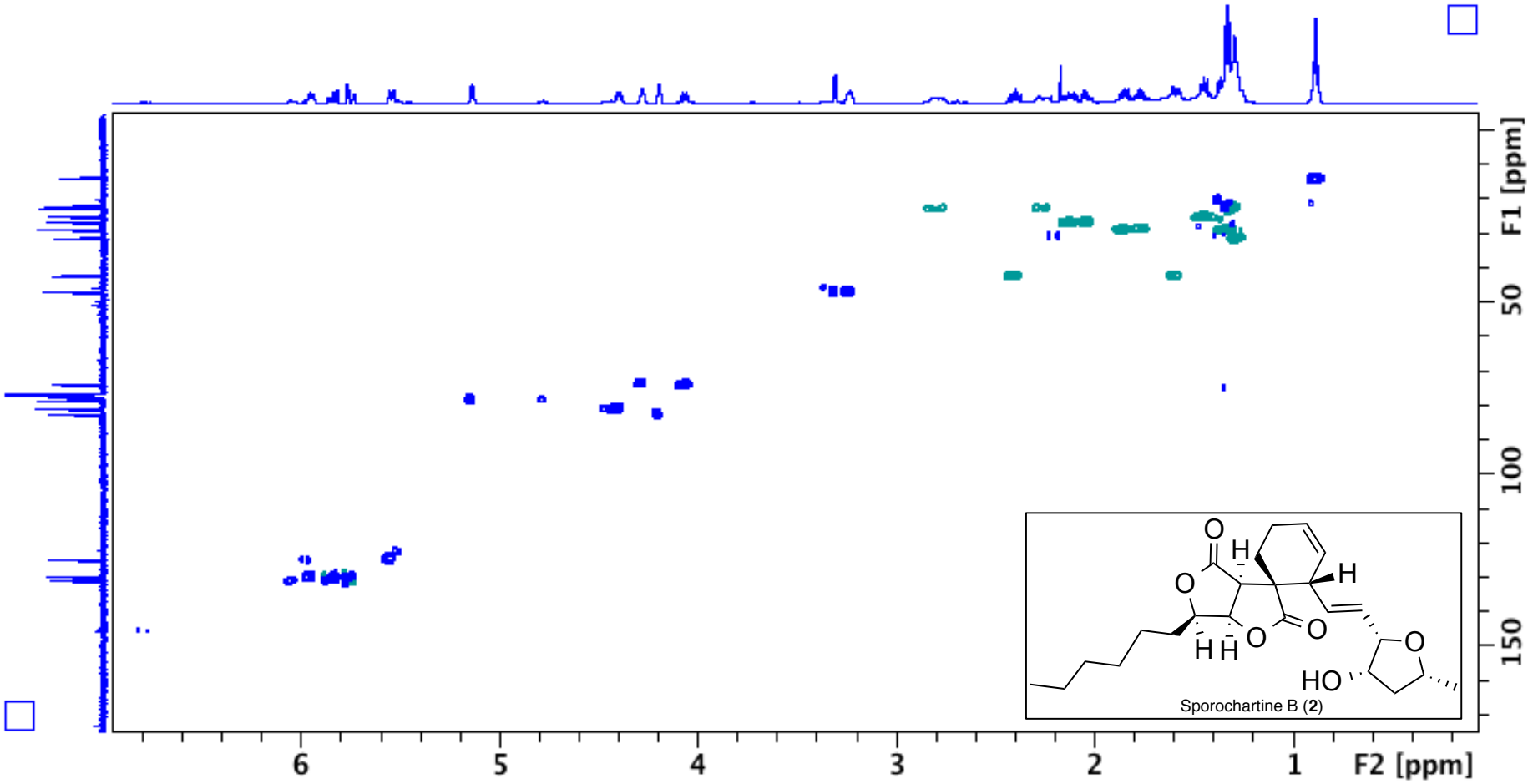
S12. ^{1}H-^{1}H COSY NMR spectrum sporochartine B (**2**) in $CDCl_3$ (500 MHz).



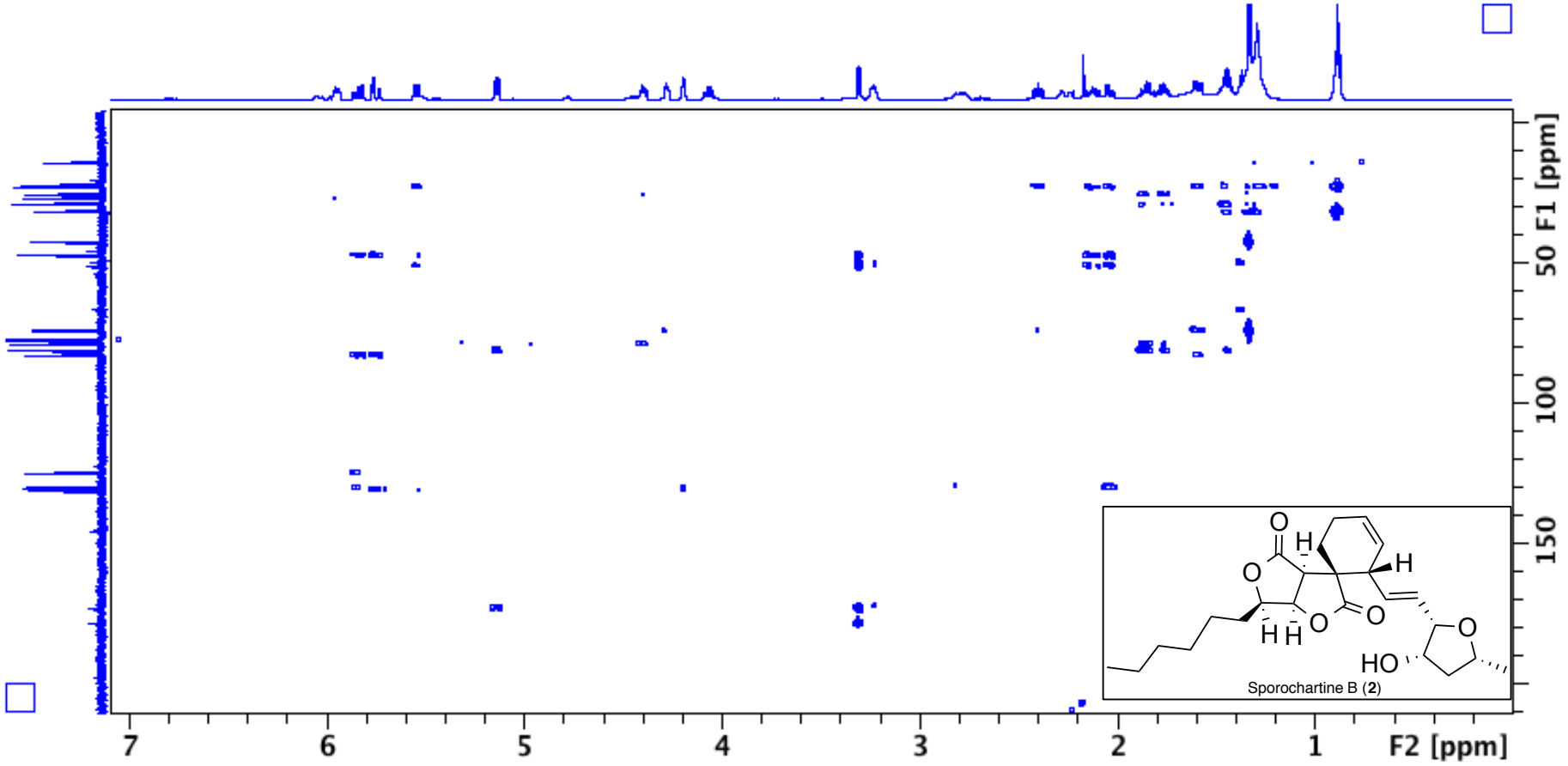
S13. ^{1}H-^{1}H ROESY NMR spectrum of sporochartine B (**2**) in $CDCl_3$ (500 MHz).



S14. HSQC NMR spectrum of sporochartine B (**2**) in $CDCl_3$ (500 MHz).



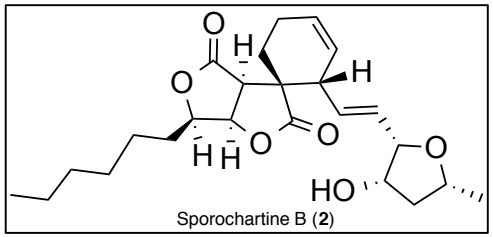
S15. ^{1}H-^{13}C HMBC NMR spectrum of sporochartine B (**2**) in $CDCl_3$ (500 MHz).



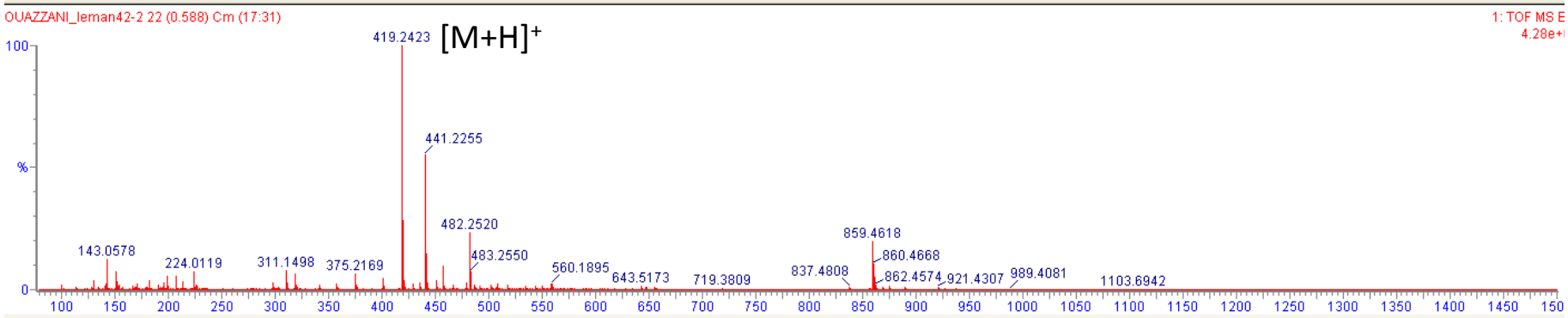
S16. HRMS spectrum of sporochartine B (**2**) in CH_3OH.

Single Mass Analysis
Tolerance = 5.0 mDa / DBE: min = -1.5, max = 50.0
Element prediction: Off
Number of isotope peaks used for i-FIT = 3
Monoisotopic Mass, Odd and Even Electron Ions
1422 formula(e) evaluated with 24 results within limits (up to 50 best isotopic matches for each mass)
Elements Used:

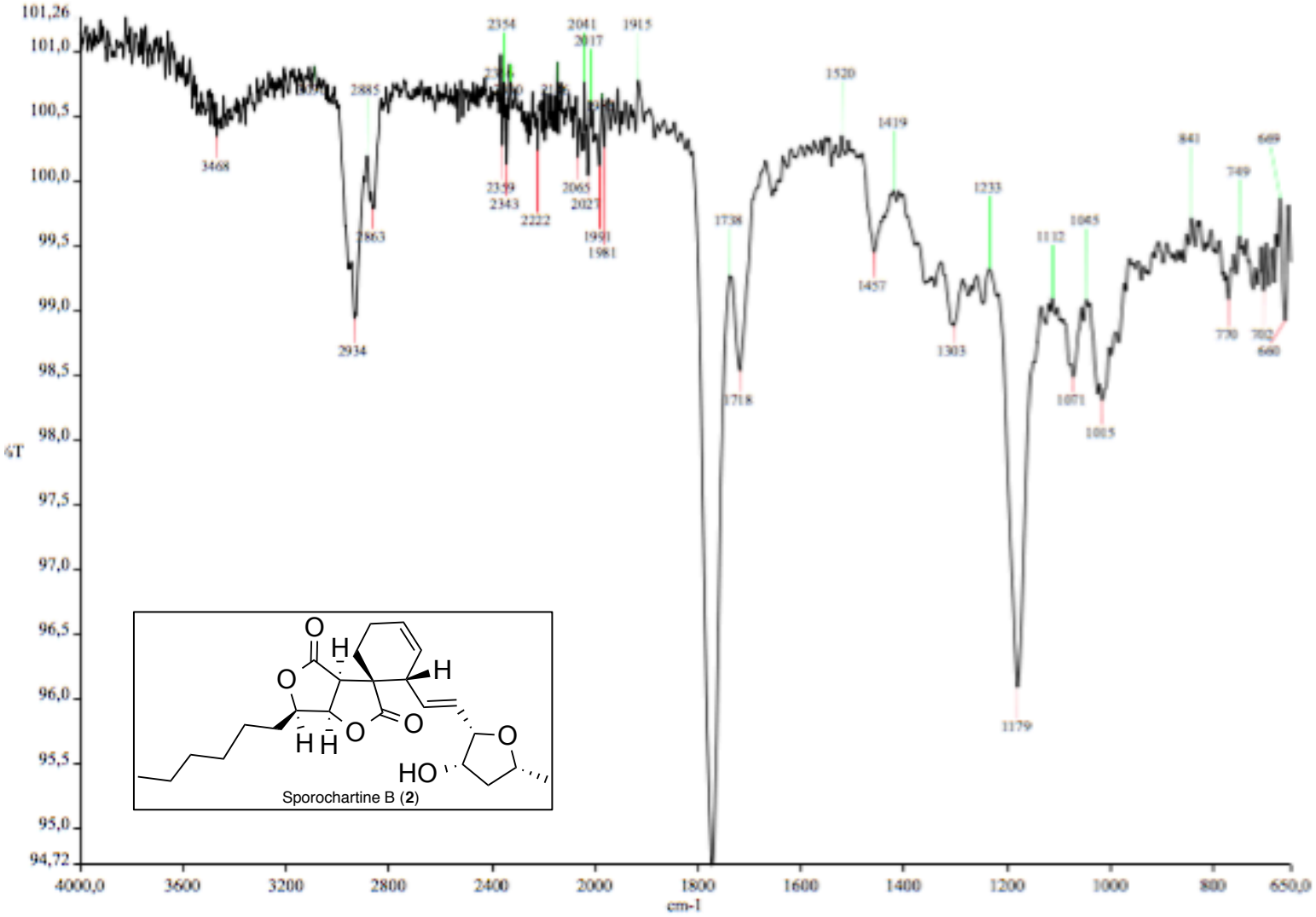
Mass	Calc. Mass	mDa	PPM	DBE	Formula	i-FIT	i-FIT (Norm)	C	H	N	O
419.2423	419.2420	0.3	0.7	13.5	C21 H27 N10	446.2	0.1	21	27	10	
	419.2434	-1.1	-2.6	13.0	C23 H29 N7 O	448.6	2.5	23	29	7	1
	419.2420	0.3	0.7	8.0	C22 H33 N3 O5	449.8	3.8	22	33	3	5
	419.2434	-1.1	-2.6	7.5	C24 H35 O6	450.9	4.8	24	35		6
	419.2407	1.6	3.8	8.5	C20 H31 N6 O4	451.1	5.0	20	31	6	4
	419.2447	-2.4	-5.7	12.5	C25 H31 N4 O2	451.4	5.3	25	31	4	2
	419.2393	3.0	7.2	9.0	C18 H29 N9 O3	453.8	7.7	18	29	9	3
	419.2393	3.0	7.2	3.5	C19 H35 N2 O8	453.8	7.8	19	35	2	8
	419.2460	-3.7	-8.8	12.0	C27 H33 N O3	454.2	8.1	27	33	1	3
	419.2380	4.3	10.3	4.0	C17 H33 N5 O7	456.0	9.9	17	33	5	7
	419.2380	4.3	10.3	9.5	C16 H27 N12 O2	456.4	10.4	16	27	12	2
	419.2375	4.8	11.4	16.5	C31 H31 O	457.1	11.1	31	31		1
	419.2466	-4.3	-10.3	-0.5	C13 H35 N6 O9	457.9	11.8	13	35	6	9
	419.2452	-2.9	-6.9	0.0	C11 H33 N9 O8	458.5	12.4	11	33	9	8
	419.2465	-4.2	-10.0	5.0	C12 H29 N13 O4	458.8	12.7	12	29	13	4
	419.2439	-1.6	-3.8	0.5	C9 H31 N12 O7	459.8	13.7	9	31	12	7
	419.2452	-2.9	-6.9	5.5	C10 H27 N16 O3	460.0	14.0	10	27	16	3
	419.2425	-0.2	-0.5	1.0	C7 H29 N15 O6	461.3	15.3	7	29	15	6
	419.2439	-1.6	-3.8	6.0	C8 H25 N19 O2	461.6	15.5	8	25	19	2
	419.2412	1.1	2.6	1.5	C5 H27 N18 O5	462.8	16.8	5	27	18	5
	419.2425	-0.2	-0.5	6.5	C6 H23 N22 O	463.2	17.1	6	23	22	1
	419.2398	2.5	6.0	2.0	C3 H25 N21 O4	464.2	18.2	3	25	21	4
	419.2412	1.1	2.6	7.0	C4 H21 N25	464.8	18.8	4	21	25	
	419.2385	3.8	9.1	2.5	C H23 N24 O3	465.6	19.5	1	23	24	3



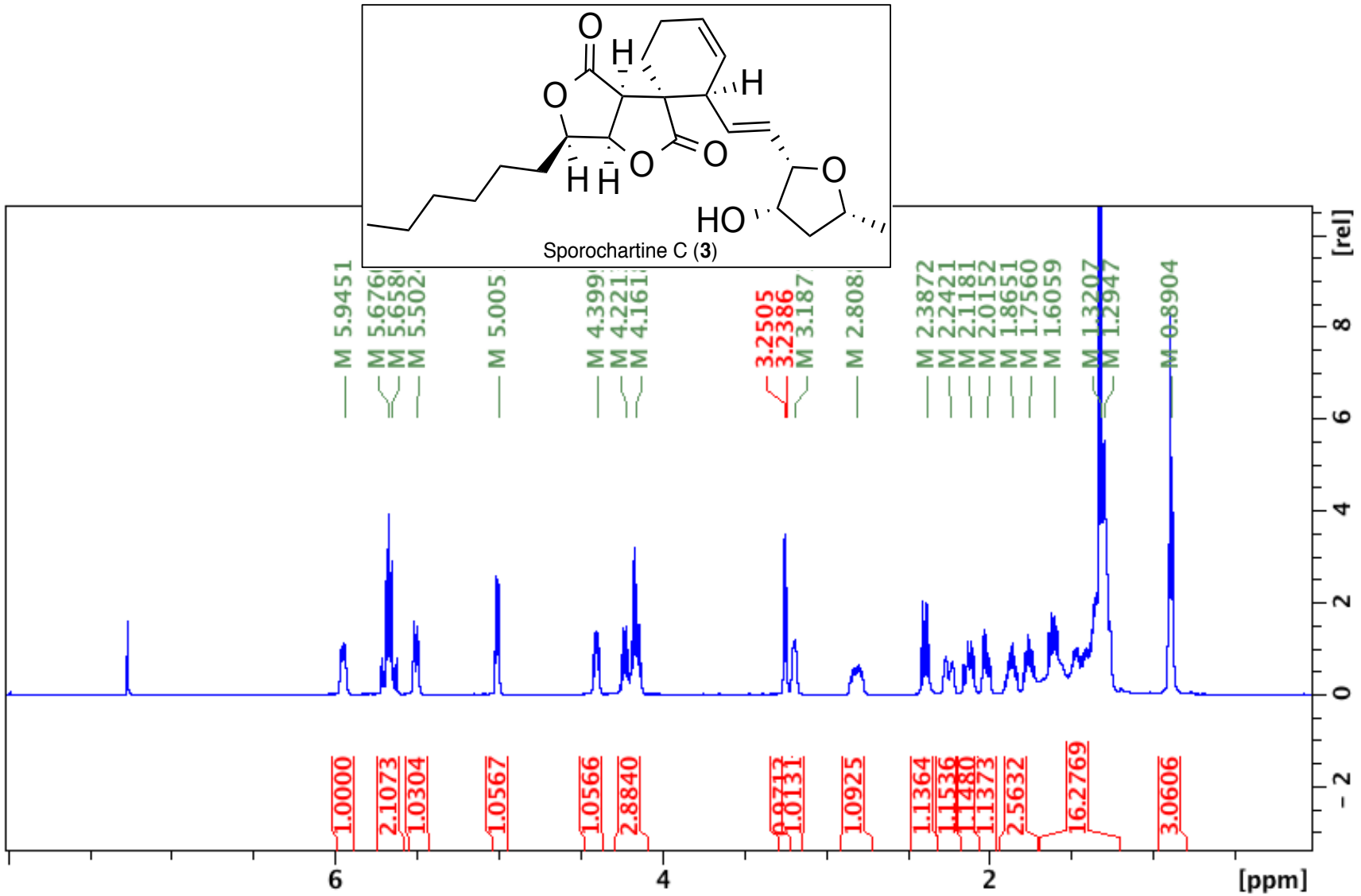
Sporochartine B (**2**)



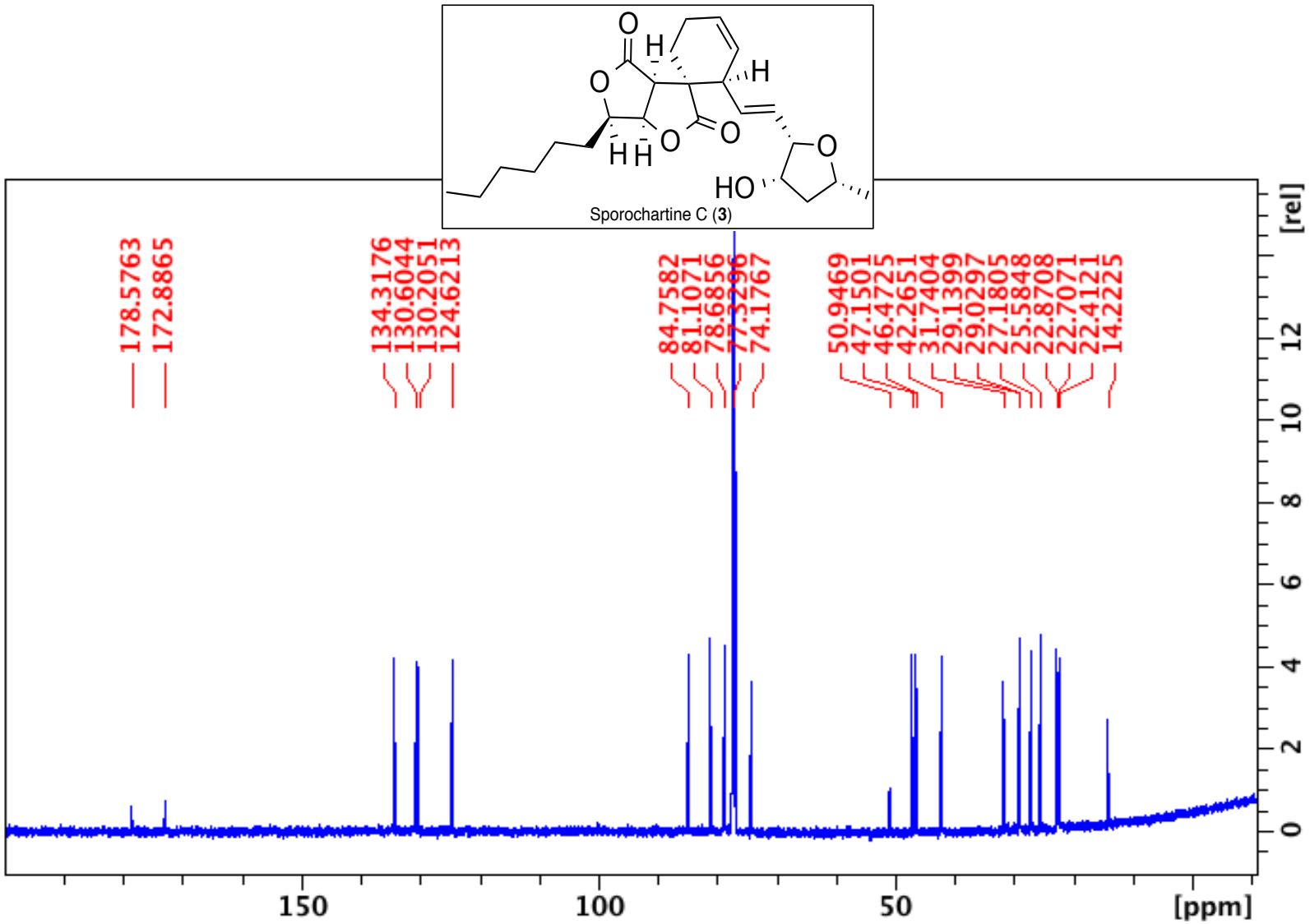
S17. IR spectrum of sporochartine B (**2**)



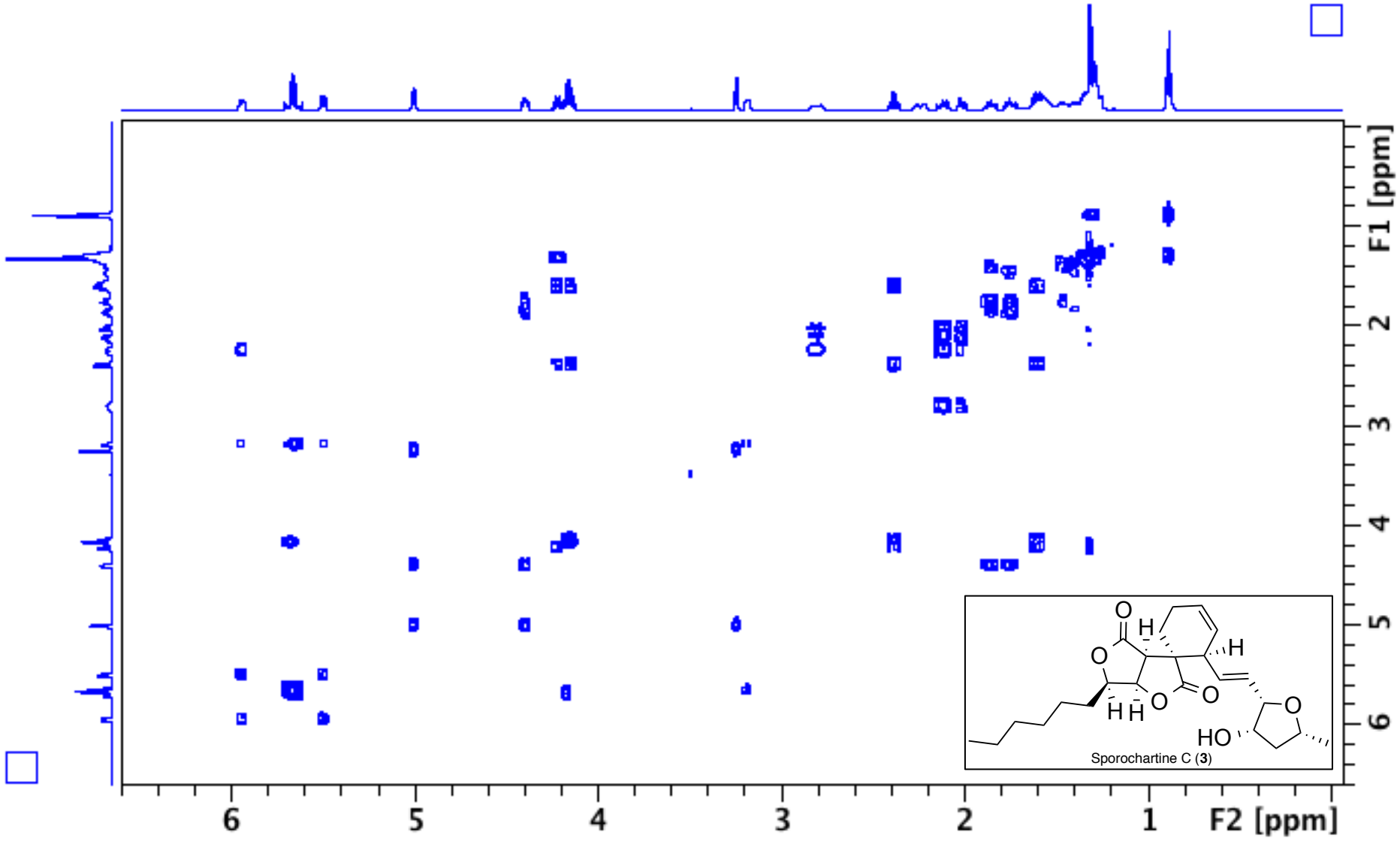
S18. ^{1}H NMR spectrum of sporochartine C (**3**) in $CDCl_3$ (500 MHz).



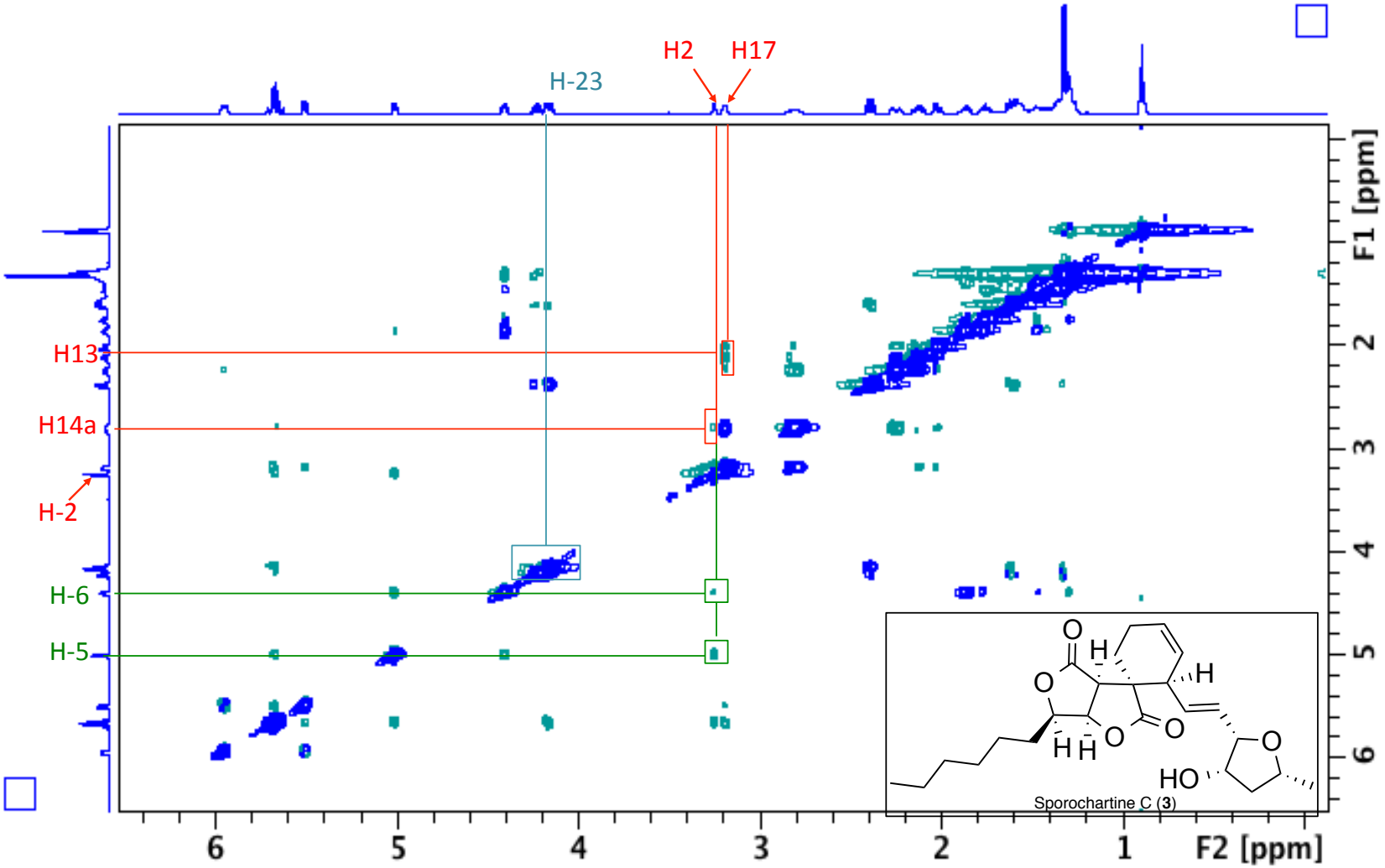
S19. ^{13}C NMR spectrum of sporochartine C (**3**) in $CDCl_3$ (150 MHz).



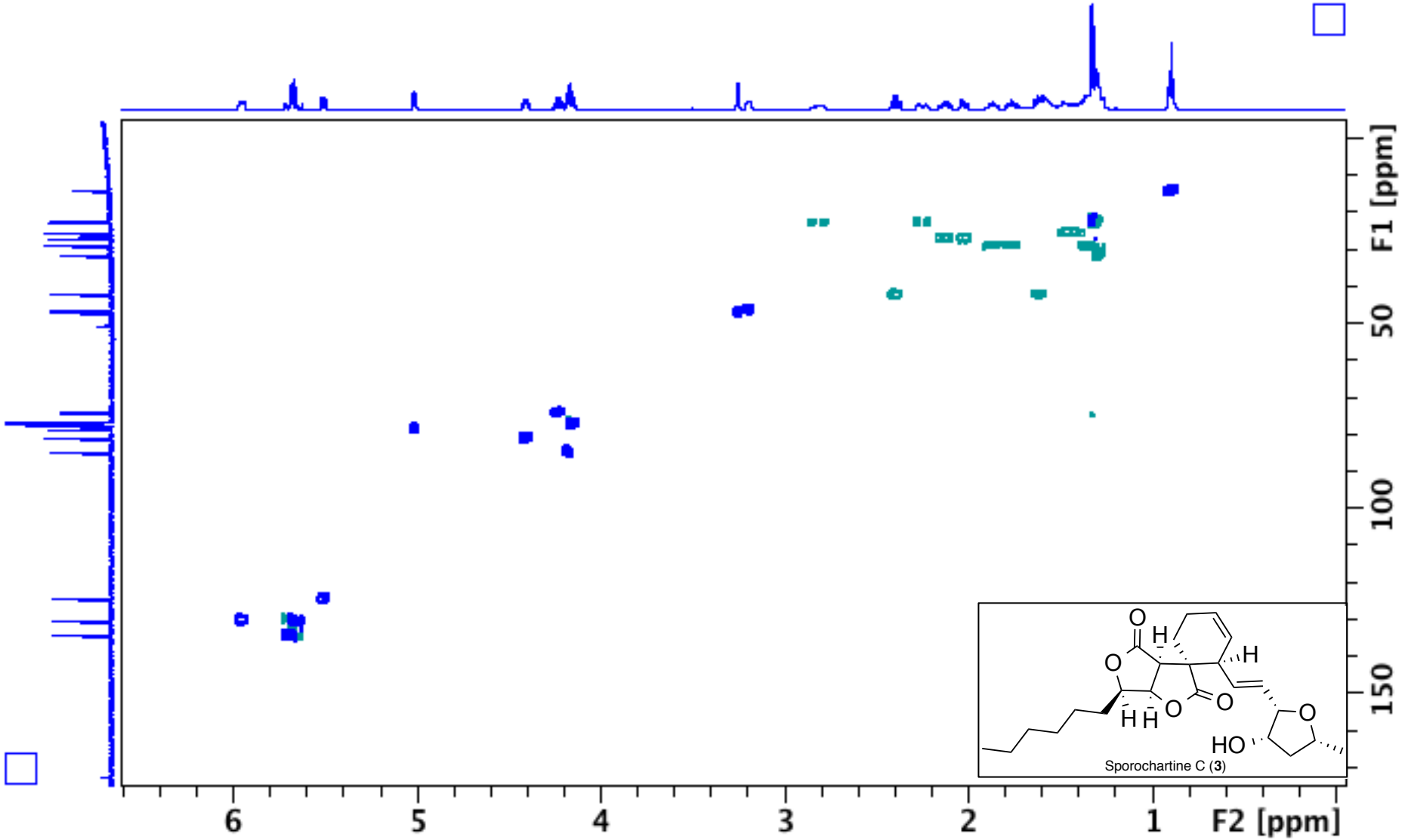
S20. ^{1}H-^{1}H COSY NMR spectrum of sporochartine C (**3**) in $CDCl_3$ (500 MHz).



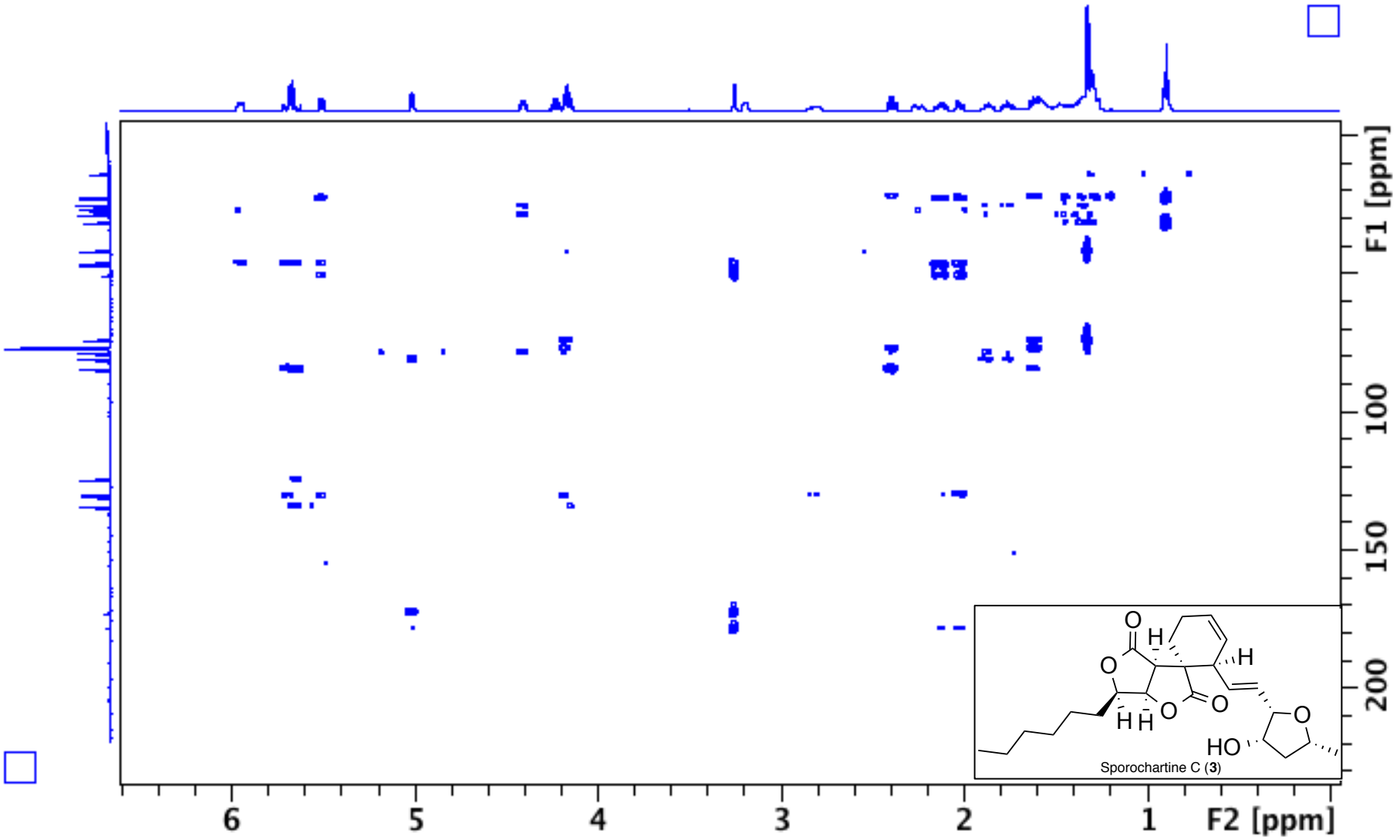
S21. ^{1}H-^{1}H ROESY NMR spectrum of sporochartine C (**3**) in $CDCl_3$ (500 MHz).



S22. ^{1}H-^{13}C HSQC NMR spectrum of sporochartine C (**3**) in $CDCl_3$ (500 MHz).



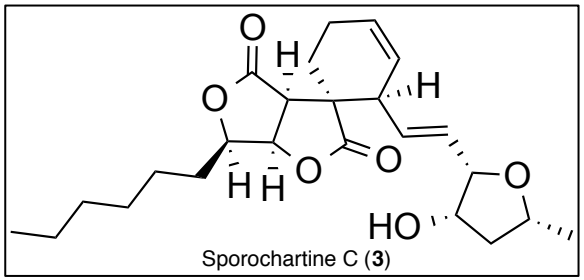
S23. ^{1}H-^{13}C HMBC NMR spectrum of sporochartine C (**3**) in $CDCl_3$ (500 MHz).



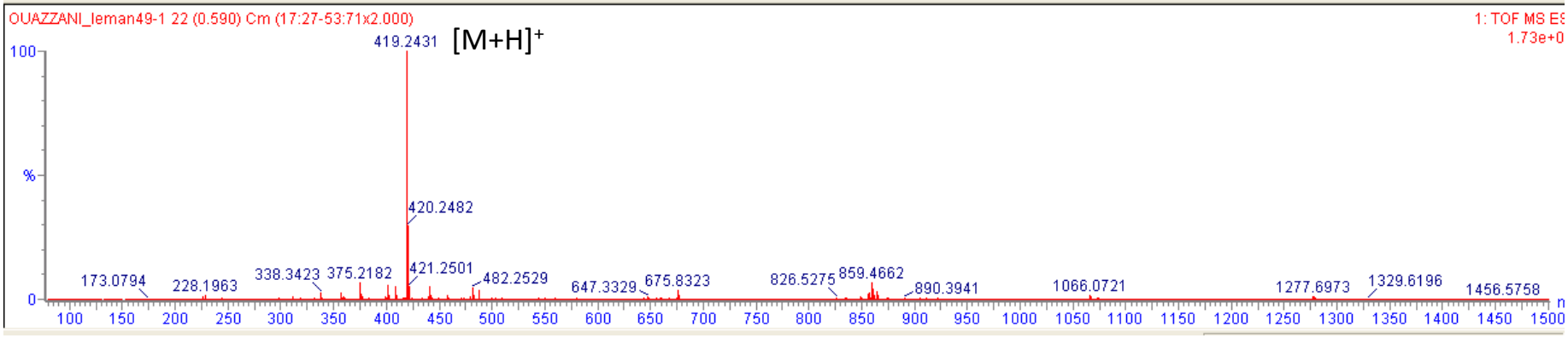
S24. ESIHRMS spectrum of sporochartine C (**3**)

Single Mass Analysis
Tolerance = 5.0 mDa / DBE: min = -1.5, max = 50.0
Element prediction: Off
Number of isotope peaks used for i-FIT = 3
Monoisotopic Mass, Even Electron Ions
1422 formula(e) evaluated with 12 results within limits (all results (up to 1000) for each mass)
Elements Used:

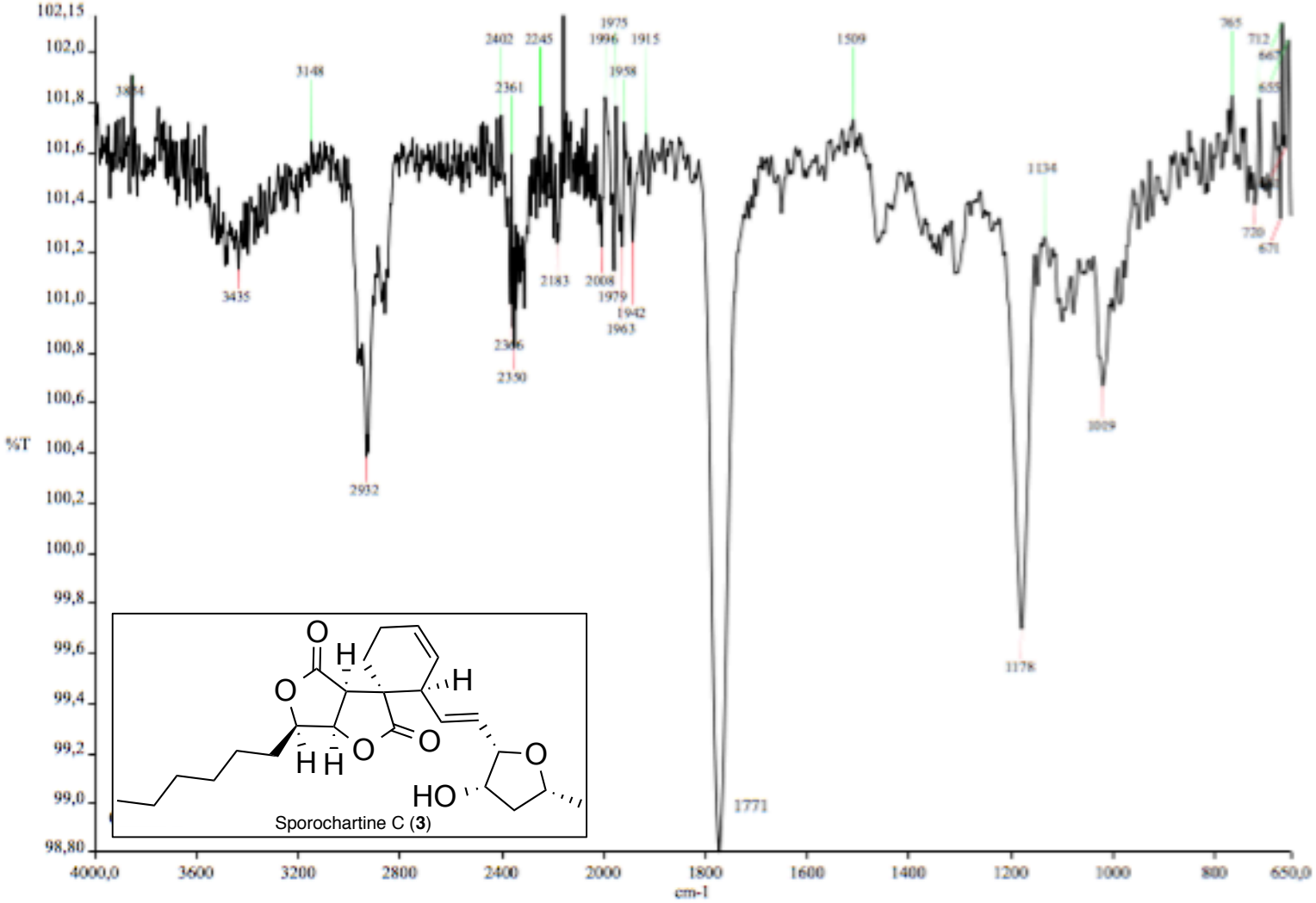
Mass	Calc. Mass	mDa	PPM	DBE	Formula	i-FIT	i-FIT (Norm)	C	H	N	O
419.2431	419.2434	-0.3	-0.7	7.5	C24 H35 O6	548.7	2.2	24	35		6
	419.2425	0.6	1.4	6.5	C6 H23 N22 O	562.2	15.8	6	23	22	1
	419.2439	-0.8	-1.9	0.5	C9 H31 N12 O7	559.7	13.3	9	31	12	7
	419.2420	1.1	2.6	13.5	C21 H27 N10	553.1	6.6	21	27	10	
	419.2447	-1.6	-3.8	12.5	C25 H31 N4 O2	546.6	0.1	25	31	4	2
	419.2412	1.9	4.5	1.5	C5 H27 N18 O5	561.9	15.5	5	27	18	5
	419.2452	-2.1	-5.0	5.5	C10 H27 N16 O3	559.8	13.3	10	27	16	3
	419.2407	2.4	5.7	8.5	C20 H31 N6 O4	553.8	7.3	20	31	6	4
	419.2466	-3.5	-8.3	-0.5	C13 H35 N6 O9	557.5	11.1	13	35	6	9
	419.2393	3.8	9.1	3.5	C19 H35 N2 O8	554.7	8.2	19	35	2	8
	419.2385	4.6	11.0	2.5	C H23 N24 O3	564.1	17.6	1	23	24	3
	419.2479	-4.8	-11.4	4.5	C14 H31 N10 O5	557.6	11.1	14	31	10	5



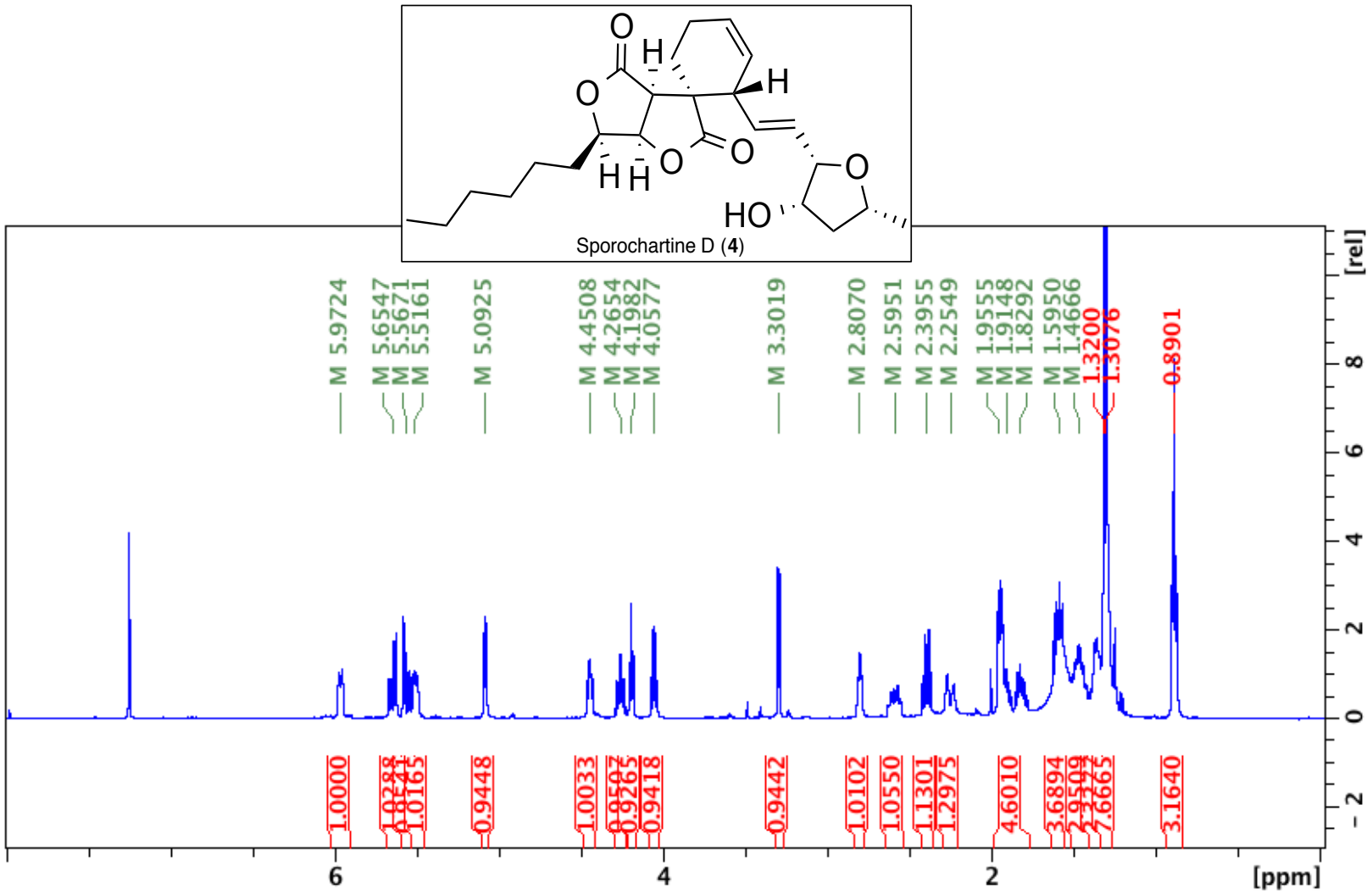
Sporochartine C (**3**)



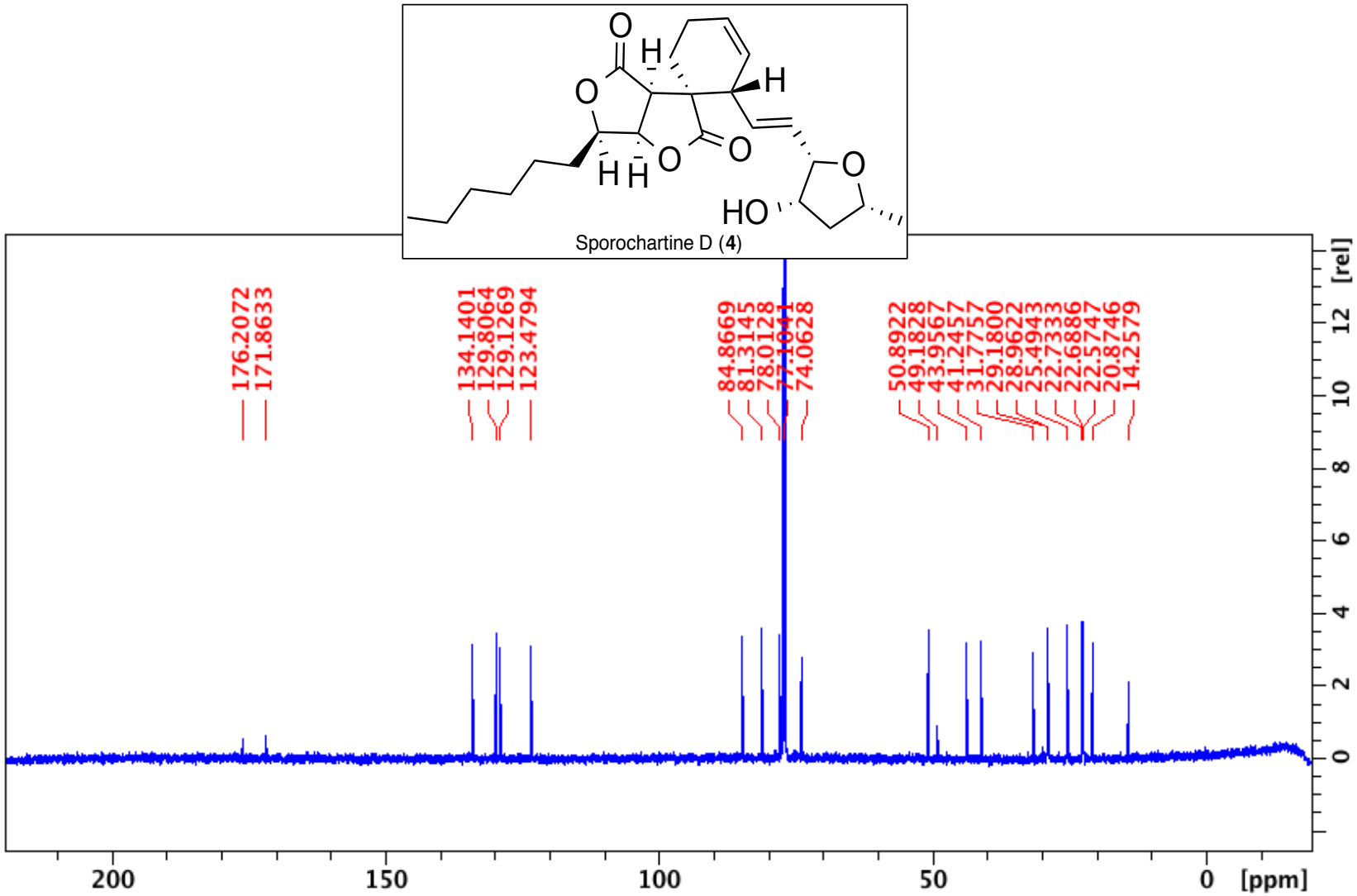
S25. IR spectrum of sporochartine C (**3**)



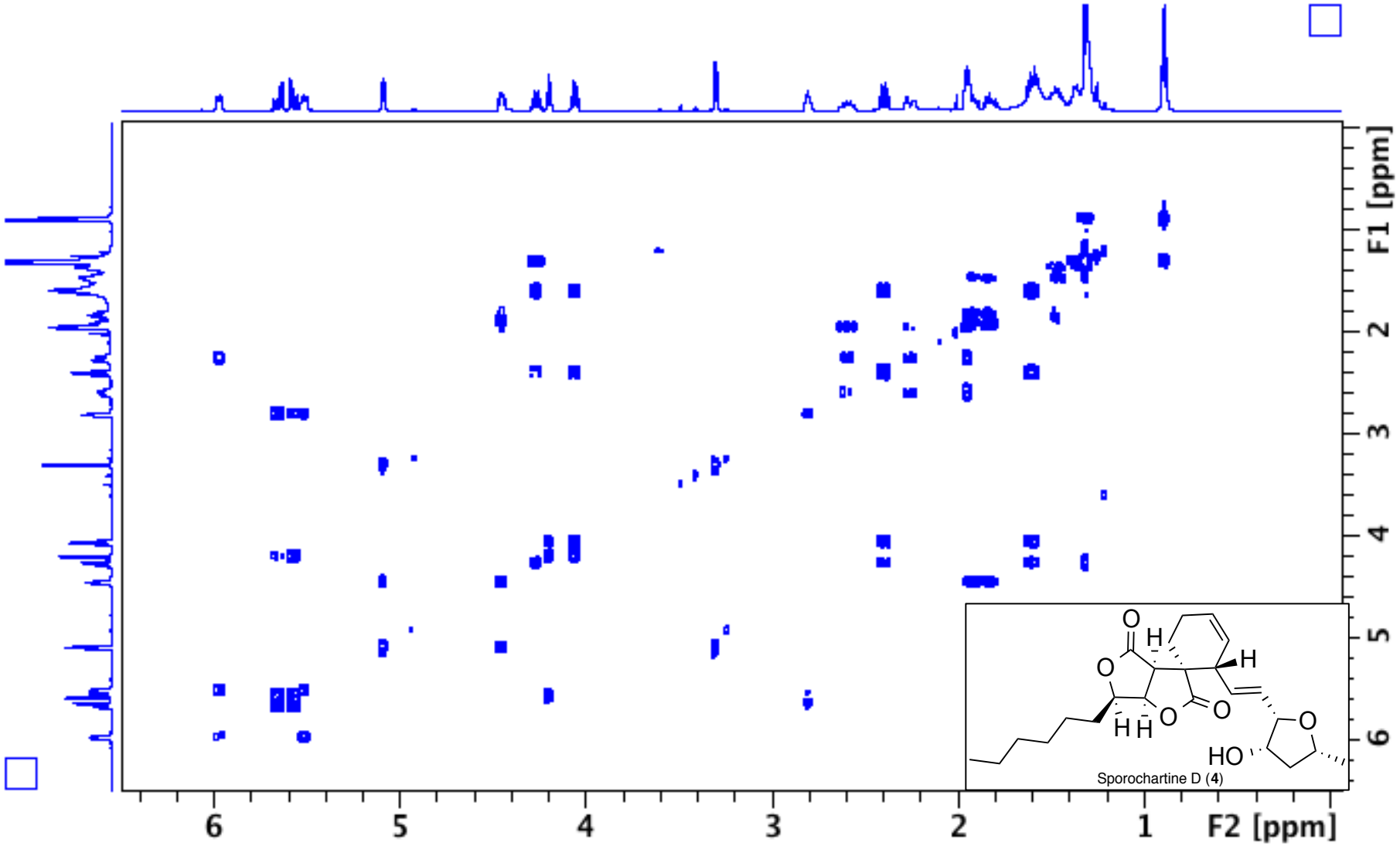
S26. ^{1}H NMR spectrum of sporochartine D (**4**) in $CDCl_3$ (500 MHz).



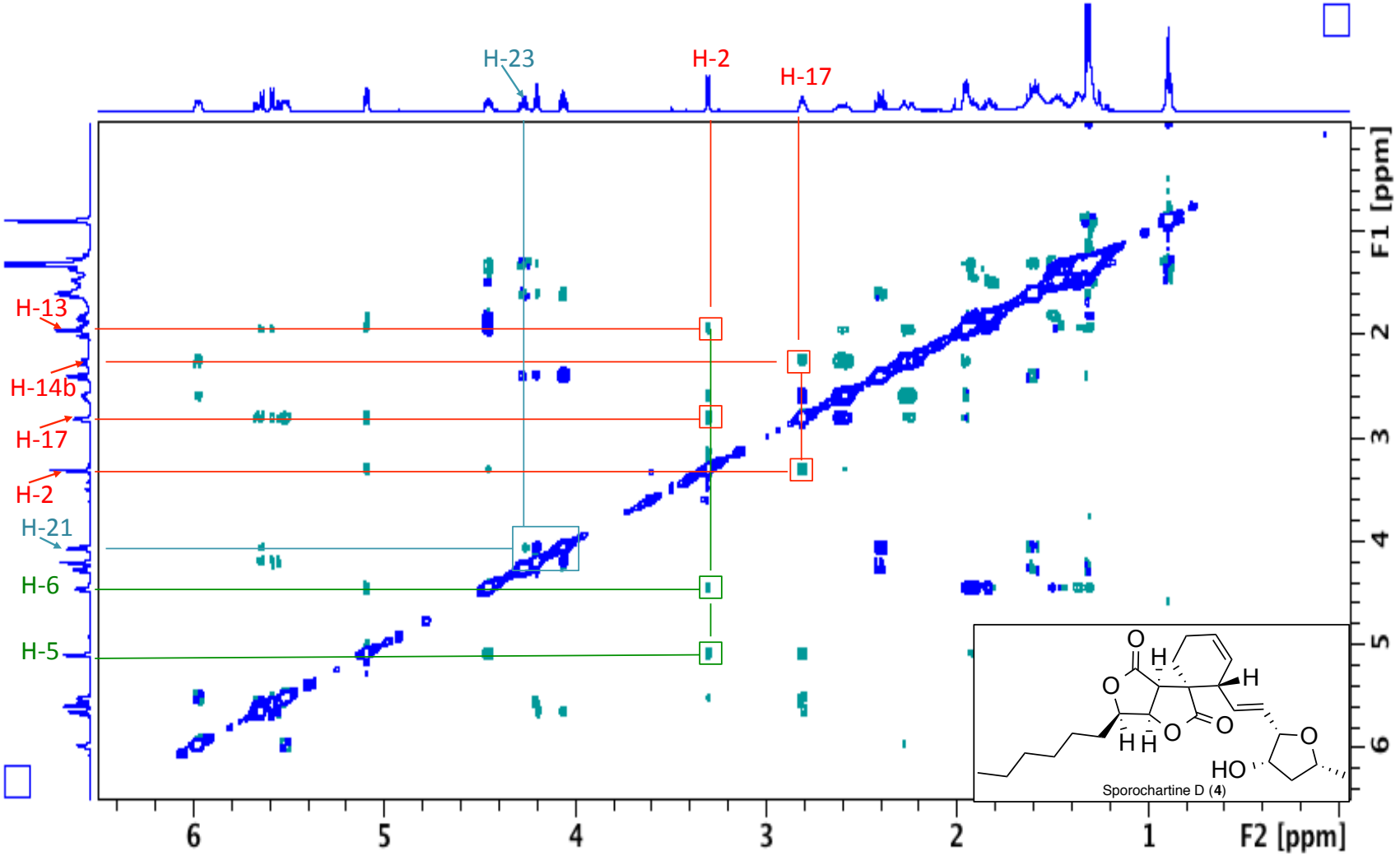
S27. ^{13}C NMR spectrum of sporochartine D (**4**) in $CDCl_3$ (150 MHz).



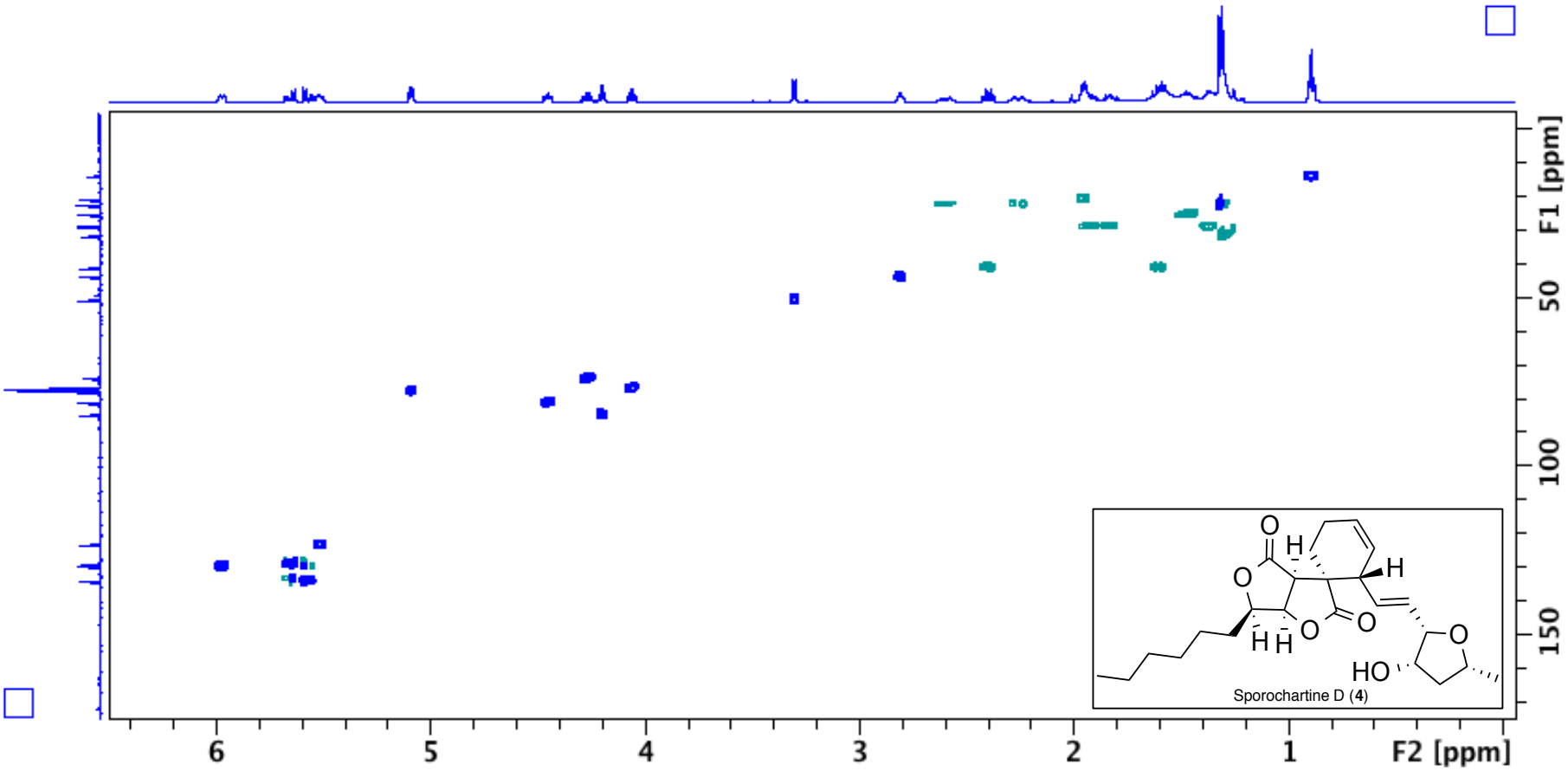
S28. ^{1}H-^{1}H COSY NMR spectrum of sporochartine D (**4**) in $CDCl_3$ (500 MHz).



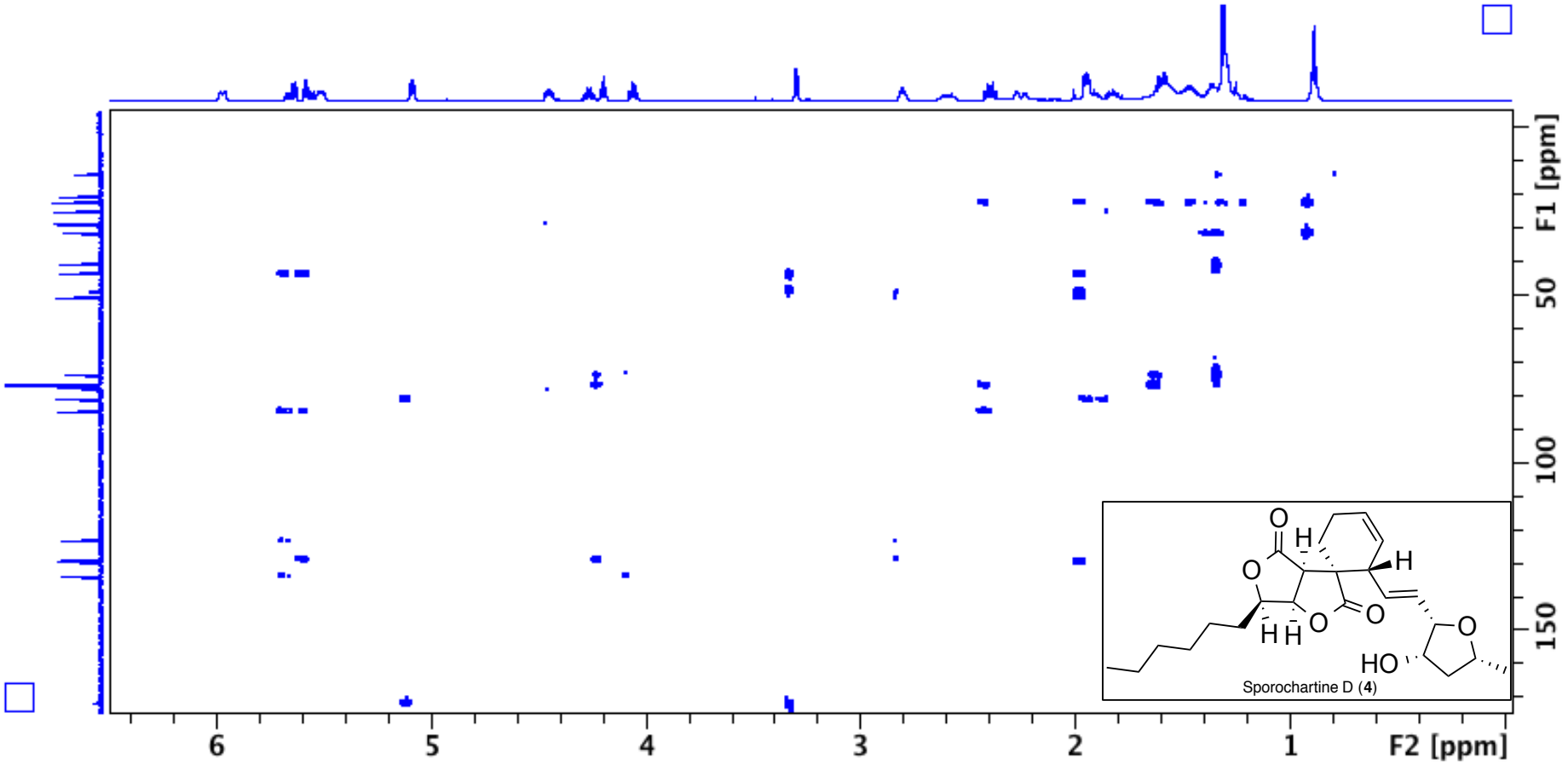
S29. ^{1}H-^{1}H ROESY NMR spectrum of sporochartine D (**4**) in $CDCl_3$ (500 MHz).



S30. HSQC NMR spectrum of sporochartine D (**4**) in $CDCl_3$ (500 MHz).



S31. ^{1}H-^{13}C HMBC NMR spectrum of sporochartine D (**4**) in $CDCl_3$ (500 MHz).



S32. HRMS spectrum of sporochartine D (**4**) in CH_3OH.

Single Mass Analysis

Tolerance = 5.0 mDa / DBE: min = -1.5, max = 50.0

Element prediction: Off

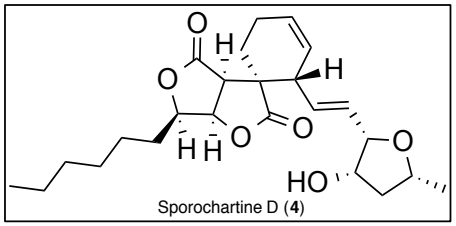
Number of isotope peaks used for i-FIT = 3

Monoisotopic Mass, Even Electron Ions

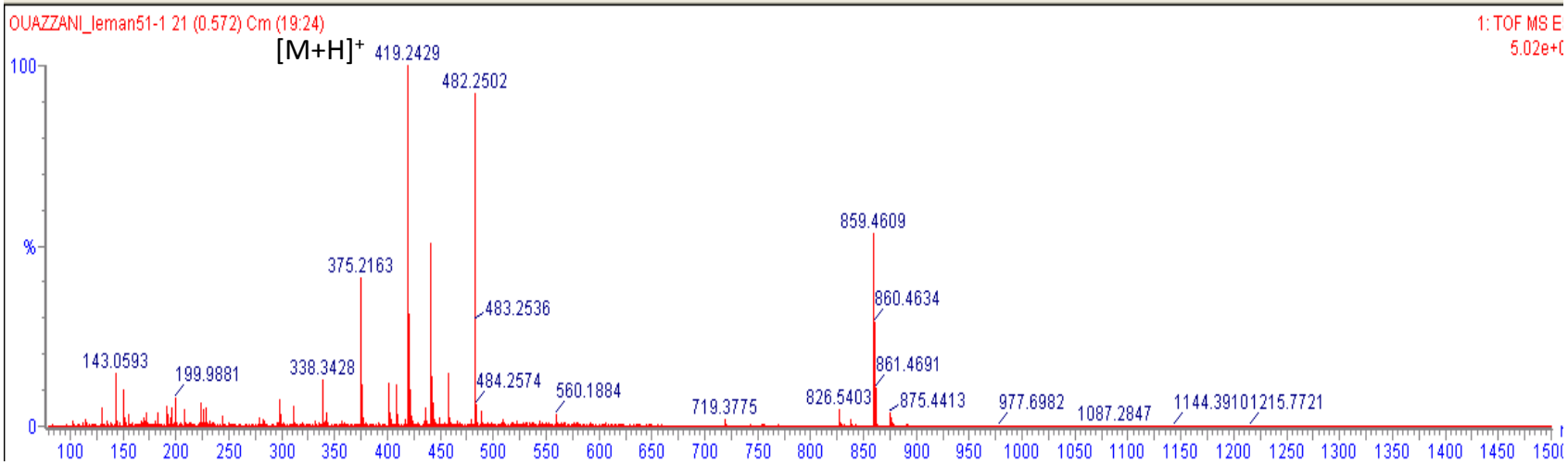
1422 formula(e) evaluated with 13 results within limits (all results (up to 1000) for each mass)

Elements Used:

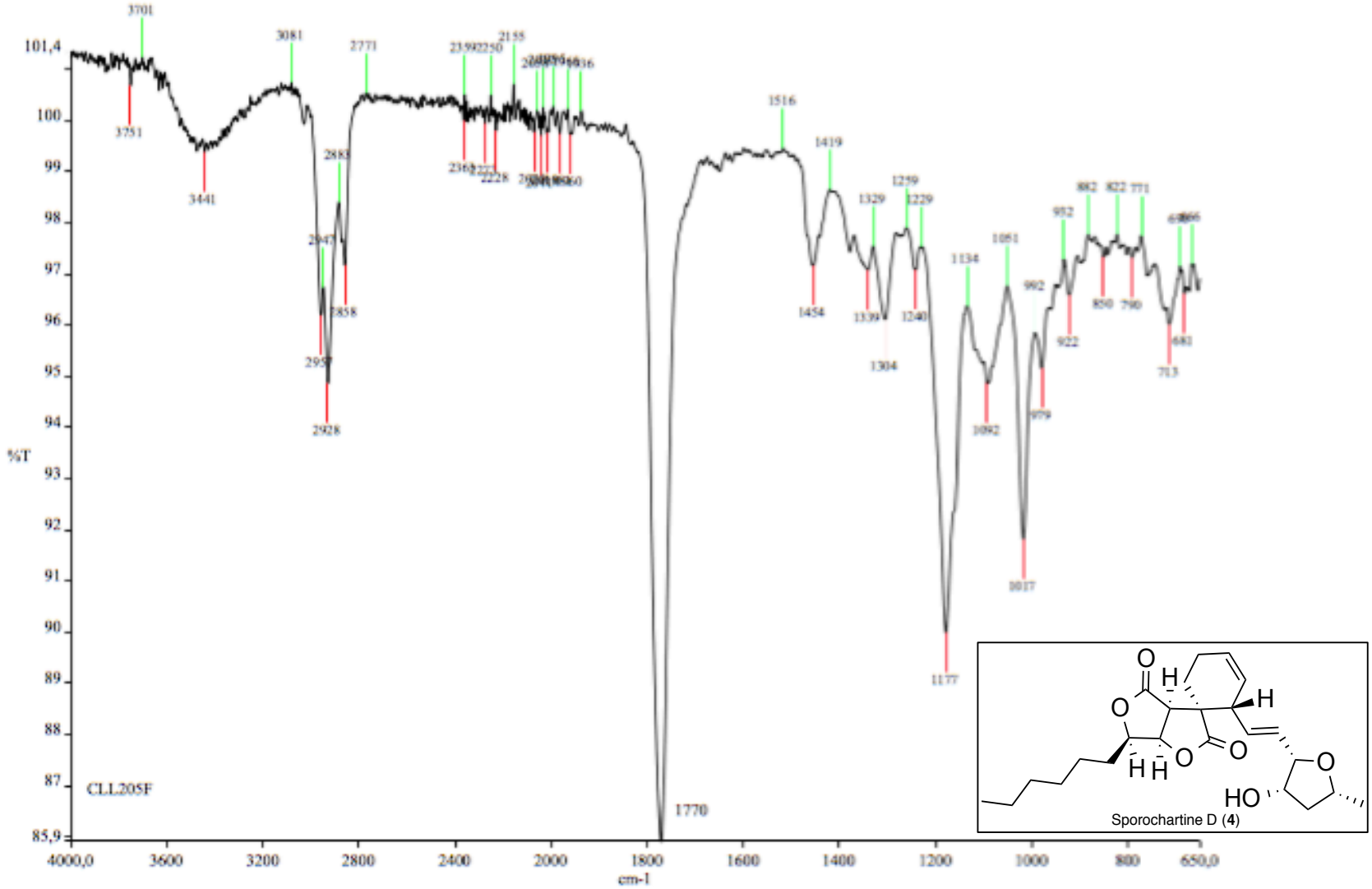
Mass	Calc. Mass	mDa	PPM	DBE	Formula	i-FIT	i-FIT (Norm)	C	H	N	O
419.2429	419.2425	0.4	1.0	6.5	C6 H23 N22 O	197.7	8.7	6	23	22	1
	419.2434	-0.5	-1.2	7.5	C24 H35 O6	189.6	0.7	24	35		6
	419.2420	0.9	2.1	13.5	C21 H27 N10	192.1	3.1	21	27	10	
	419.2439	-1.0	-2.4	0.5	C9 H31 N12 O7	195.5	6.5	9	31	12	7
	419.2412	1.7	4.1	1.5	C5 H27 N18 O5	197.4	8.4	5	27	18	5
	419.2447	-1.8	-4.3	12.5	C25 H31 N4 O2	190.0	1.0	25	31	4	2
	419.2407	2.2	5.2	8.5	C20 H31 N6 O4	192.2	3.2	20	31	6	4
	419.2452	-2.3	-5.5	5.5	C10 H27 N16 O3	195.7	6.8	10	27	16	3
	419.2393	3.6	8.6	3.5	C19 H35 N2 O8	192.6	3.6	19	35	2	8
	419.2466	-3.7	-8.8	-0.5	C13 H35 N6 O9	194.1	5.2	13	35	6	9
	419.2385	4.4	10.5	2.5	C H23 N24 O3	199.3	10.4	1	23	24	3
	419.2380	4.9	11.7	9.5	C16 H27 N12 O2	194.6	5.7	16	27	12	2
	419.2479	-5.0	-11.9	4.5	C14 H31 N10 O5	194.4	5.5	14	31	10	5



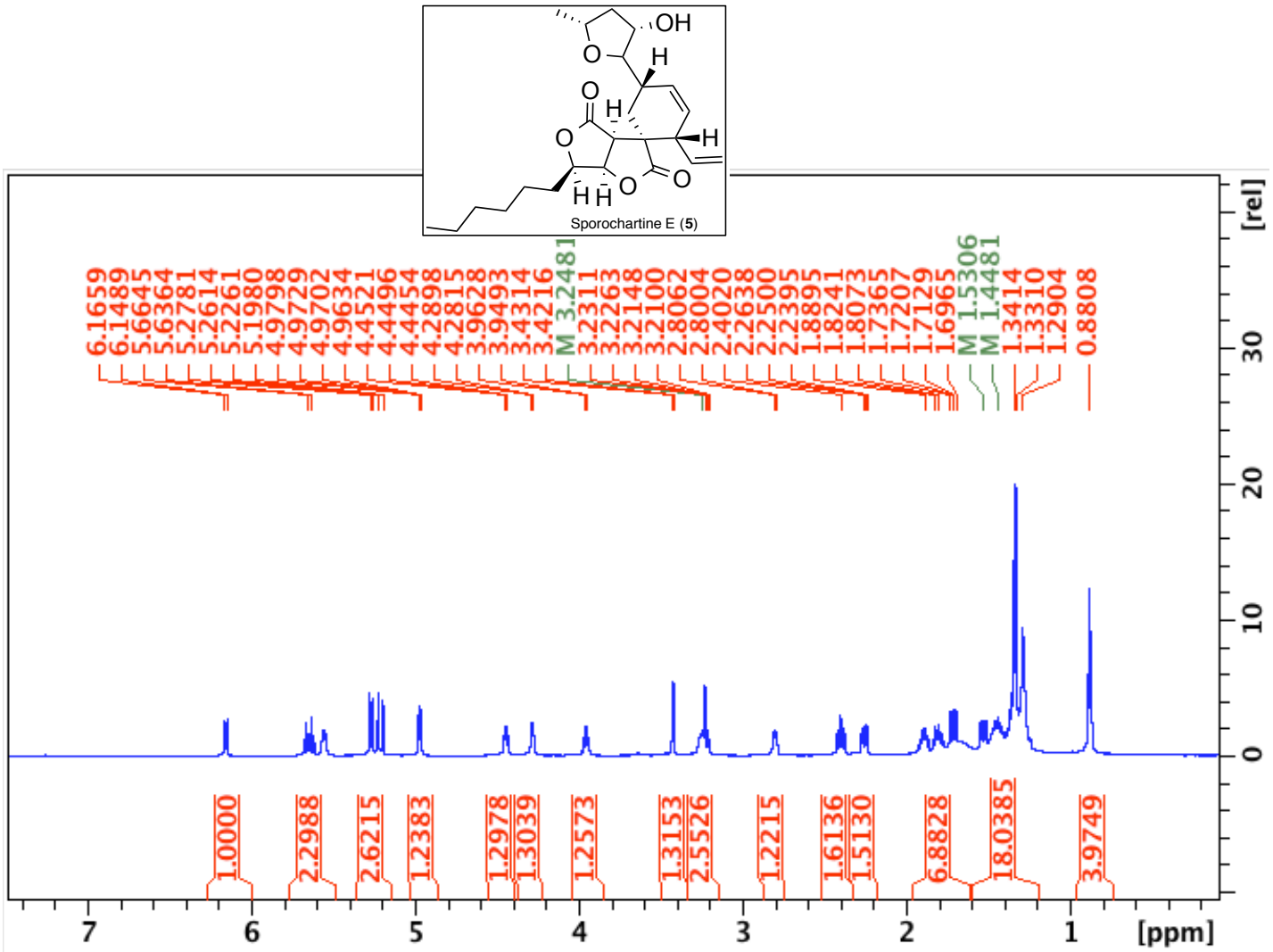
Sporochartine D (**4**)



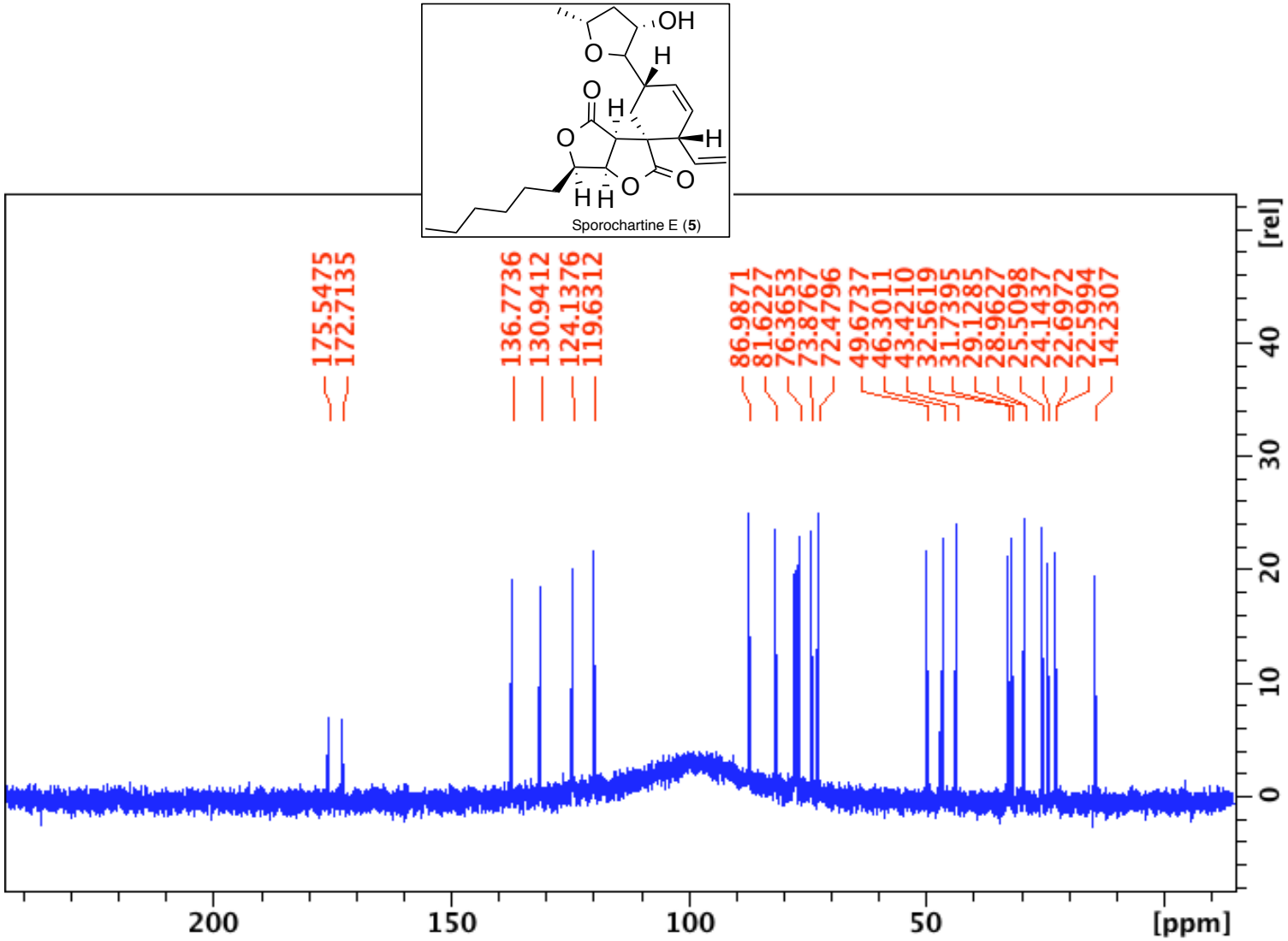
S33. IR spectrum of sporochartine D (**4**)



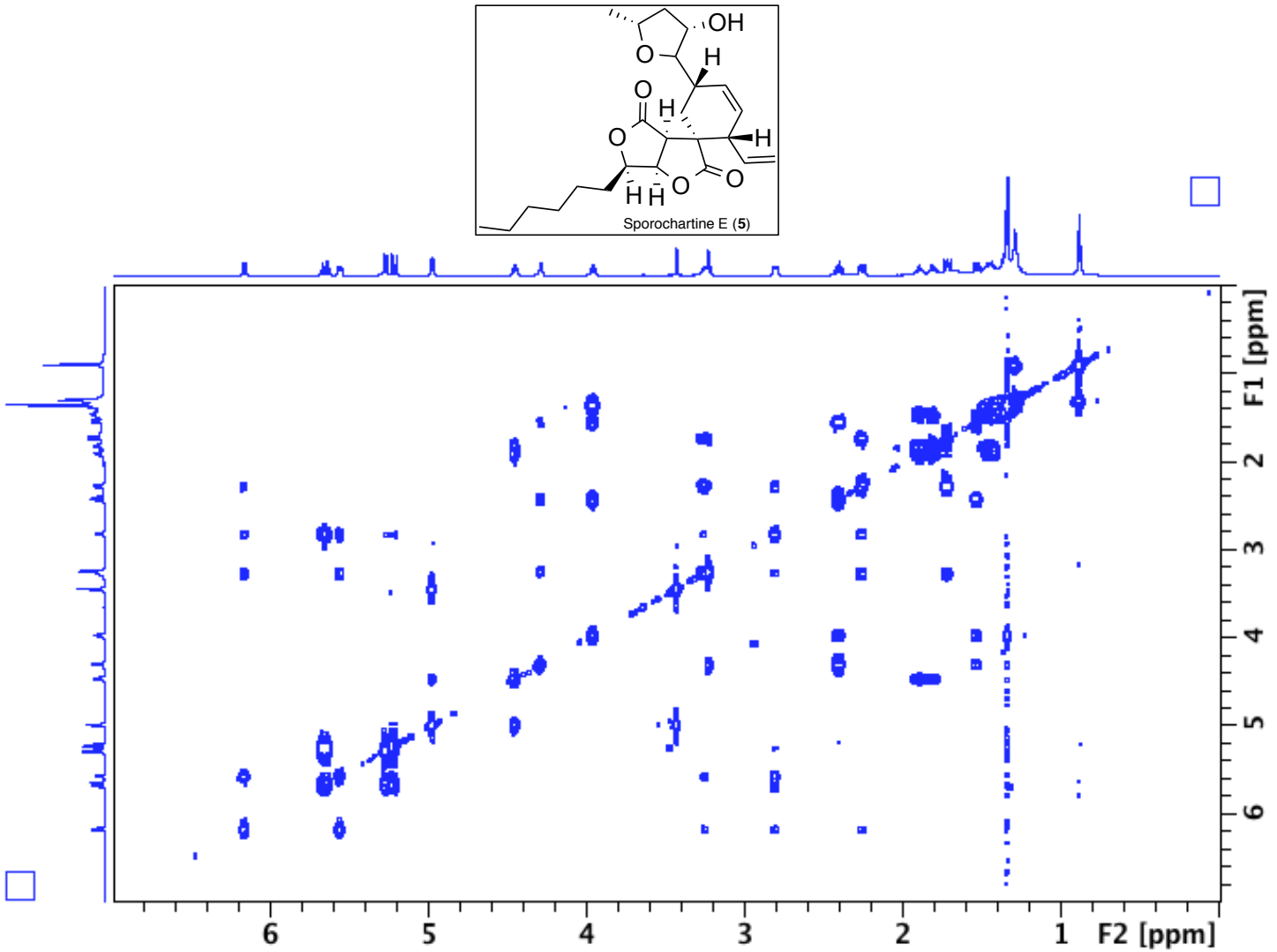
S34. ^{1}H NMR spectrum of sporochartine E (**5**) in $CDCl_3$ (600 MHz).



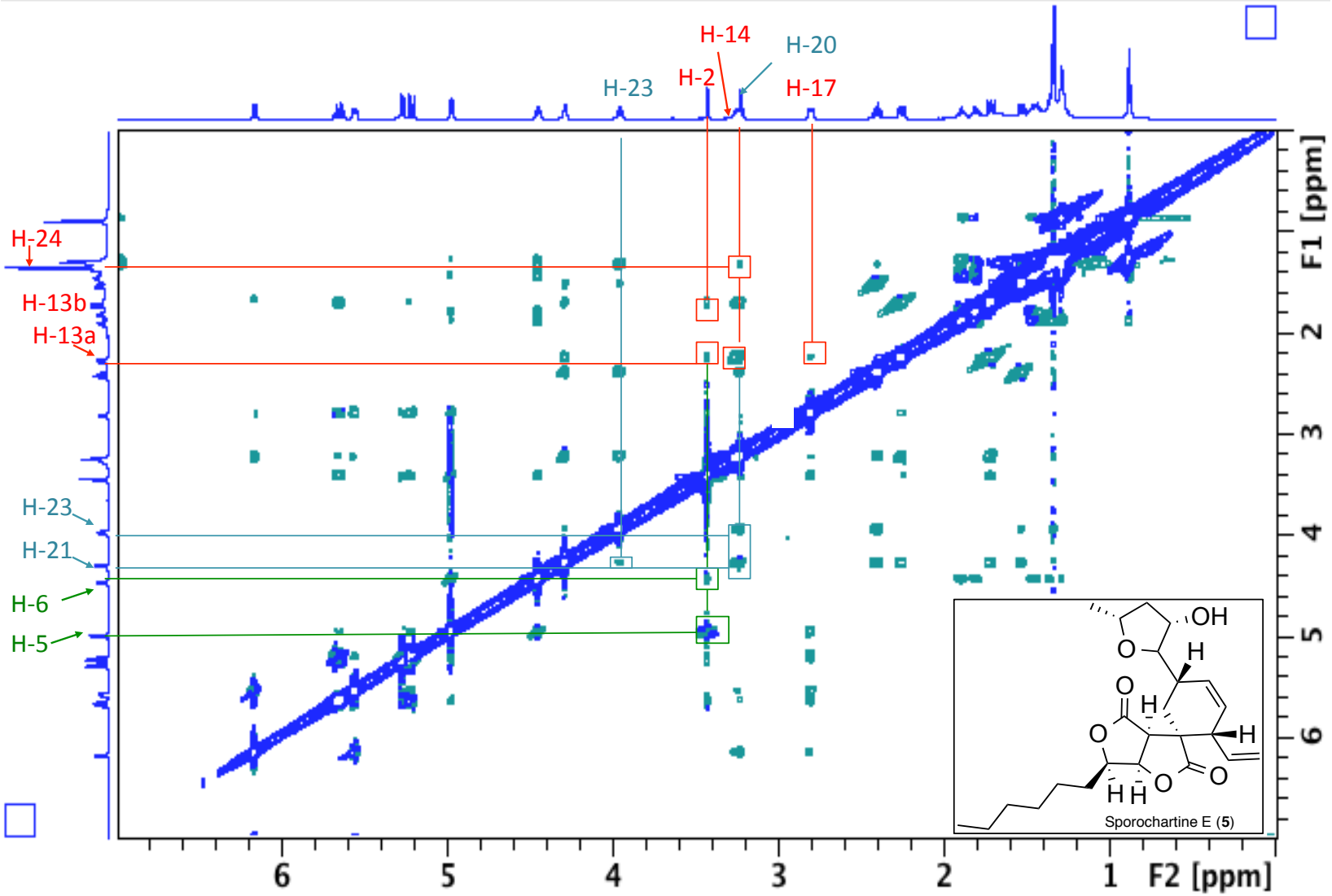
S35. ^{13}C NMR spectrum of sporochartine E (**5**) in $CDCl_3$ (125 MHz).



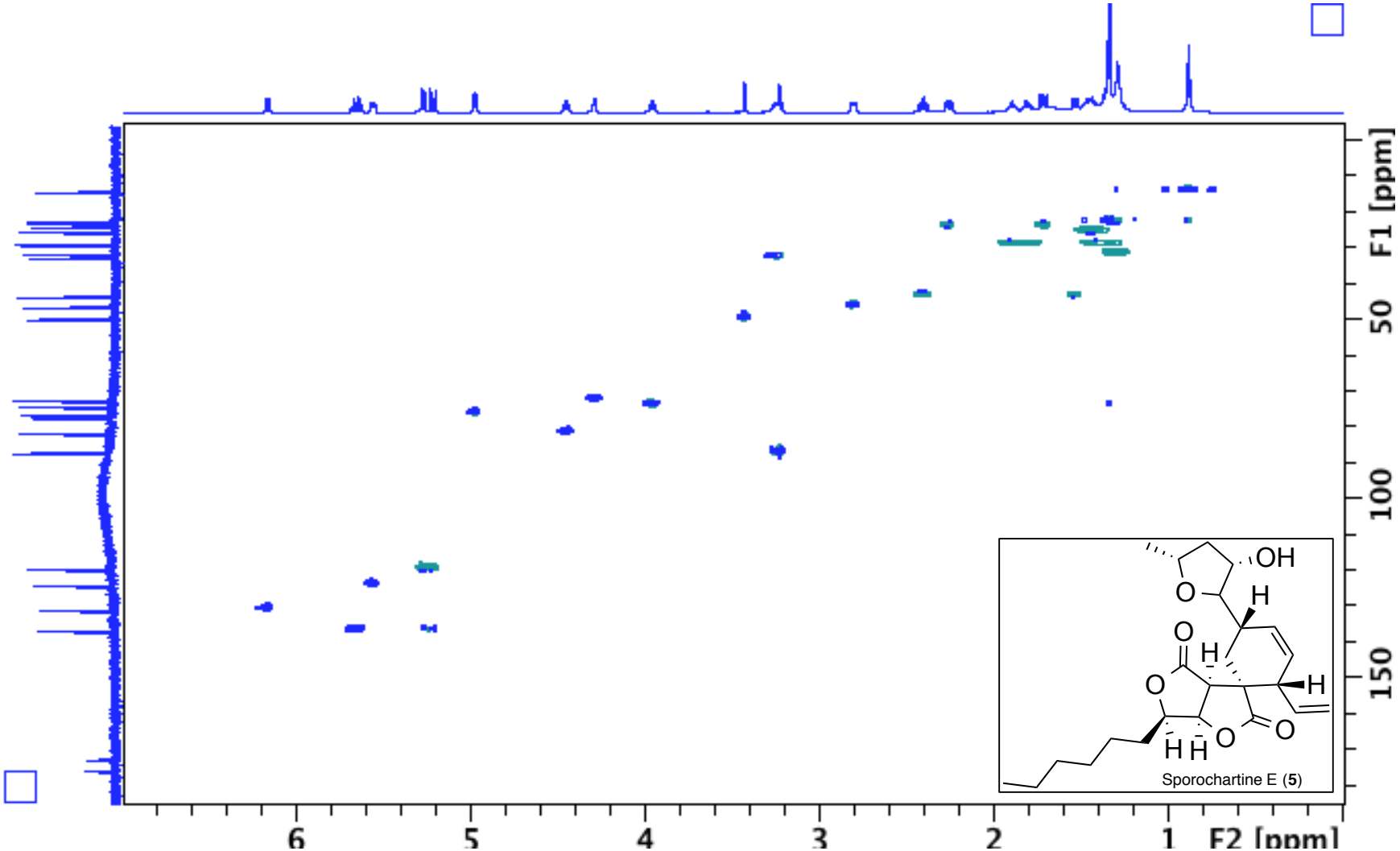
S36. ^{1}H-^{1}H COSY NMR spectrum of sporochartine E (**5**) in $CDCl_3$ (500 MHz).



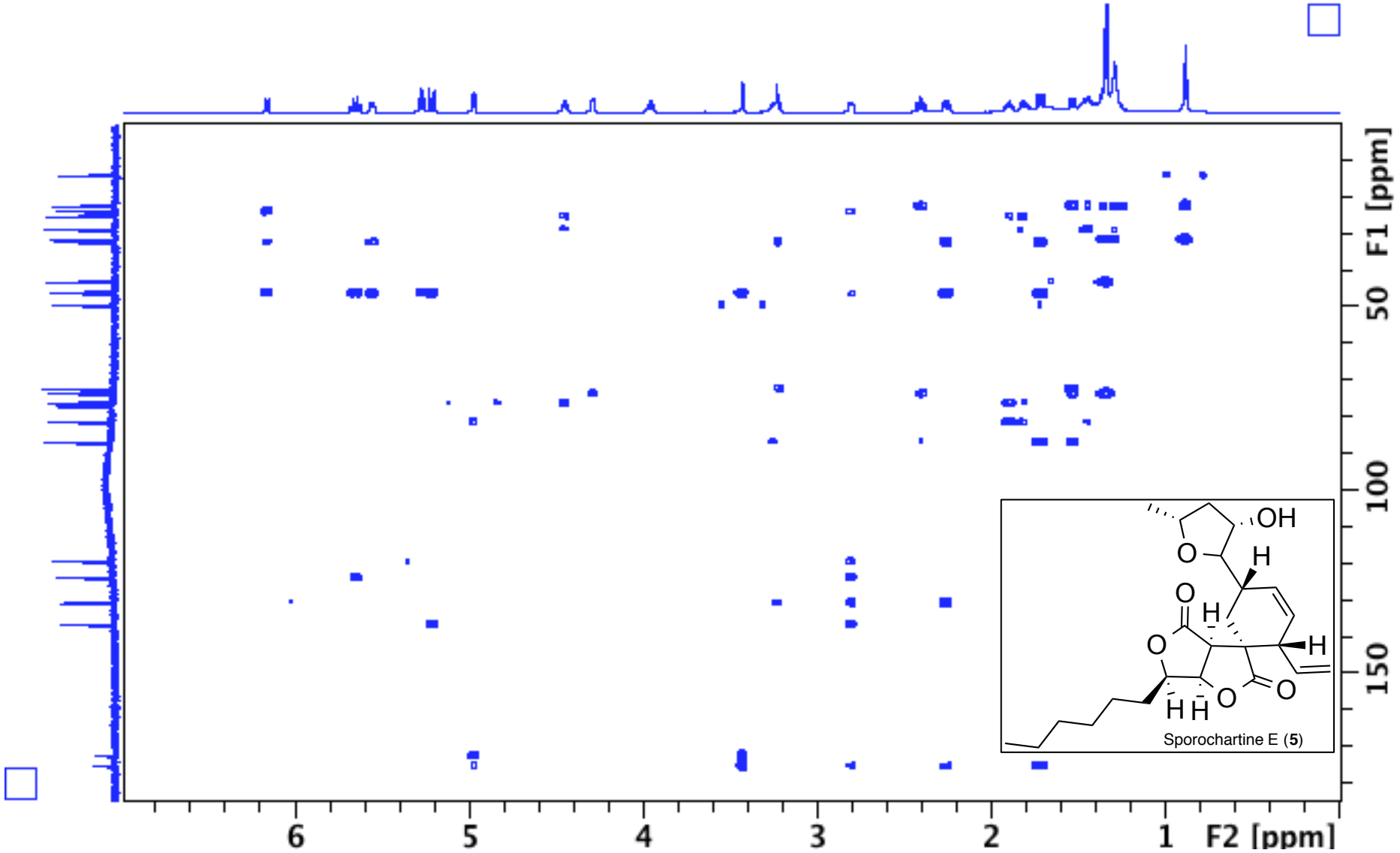
S37. ^{1}H-^{1}H ROESY NMR spectrum of sporochartine E (**5**) in $CDCl_3$ (500 MHz).



S38. ^{1}H-^{13}C HSQC NMR spectrum of sporochartine E (**5**) in $CDCl_3$ (500 MHz).



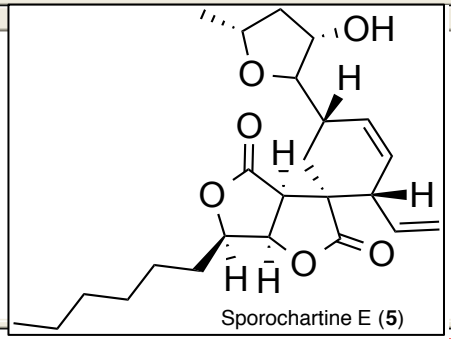
S39. ^{1}H-^{13}C HMBC NMR spectrum of sporochartine E (**5**) in $CDCl_3$ (500 MHz).

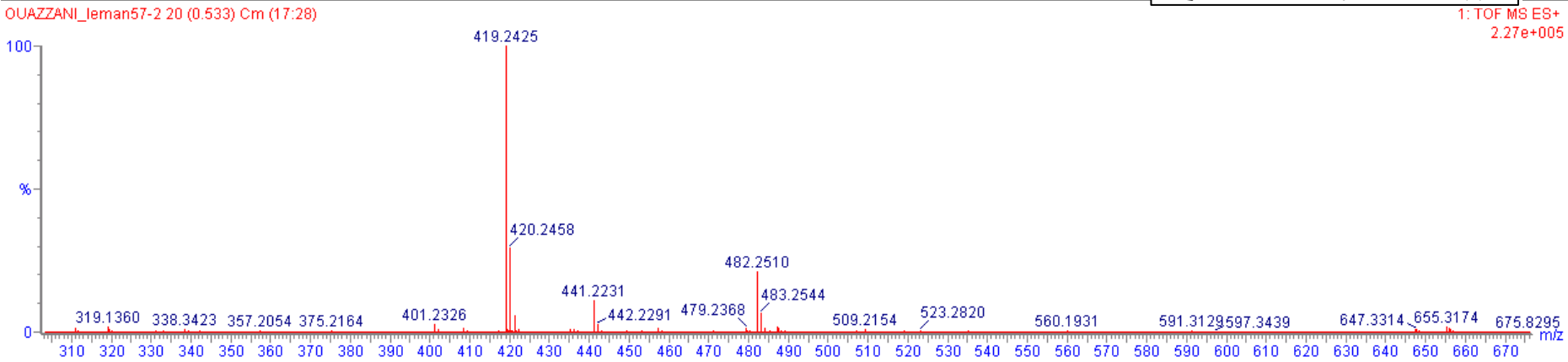


S40. ESI-HRMS spectrum of sporochartine E (**5**)

Single Mass Analysis
Tolerance = 5.0 mDa / DBE: min = -1.5, max = 50.0
Element prediction: Off
Number of isotope peaks used for i-FIT = 3
Monoisotopic Mass, Even Electron Ions
1422 formula(e) evaluated with 12 results within limits (all results (up to 1000) for each mass)
Elements Used:

Mass	Calc. Mass	mDa	PPM	DBE	Formula	i-FIT	i-FIT (Norm)	C	H	N	O
419.2425	419.2425	0.0	0.0	6.5	C6 H23 N22 O	631.4	13.1	6	23	22	1
	419.2420	0.5	1.2	13.5	C21 H27 N10	623.2	4.8	21	27	10	
	419.2434	-0.9	-2.1	7.5	C24 H35 O6	619.1	0.8	24	35		6
	419.2412	1.3	3.1	1.5	C5 H27 N18 O5	630.8	12.4	5	27	18	5
	419.2439	-1.4	-3.3	0.5	C9 H31 N12 O7	629.1	10.7	9	31	12	7
	419.2407	1.8	4.3	8.5	C20 H31 N6 O4	623.6	5.2	20	31	6	4
	419.2447	-2.2	-5.2	12.5	C25 H31 N4 O2	619.0	0.7	25	31	4	2
	419.2452	-2.7	-6.4	5.5	C10 H27 N16 O3	629.2	10.8	10	27	16	3
	419.2393	3.2	7.6	3.5	C19 H35 N2 O8	624.6	6.3	19	35	2	8
	419.2385	4.0	9.5	2.5	C H23 N24 O3	632.7	14.4	1	23	24	3
	419.2466	-4.1	-9.8	-0.5	C13 H35 N6 O9	627.6	9.2	13	35	6	9
	419.2380	4.5	10.7	9.5	C16 H27 N12 O2	626.7	8.3	16	27	12	2





S41. IR spectrum of sporochartine E (**5**)