Isolation, Structure Elucidation, and Antiproliferative Activity of Butanolides and Lignan Glycosides from the Fruit of *Hernandia nymphaeifolia*

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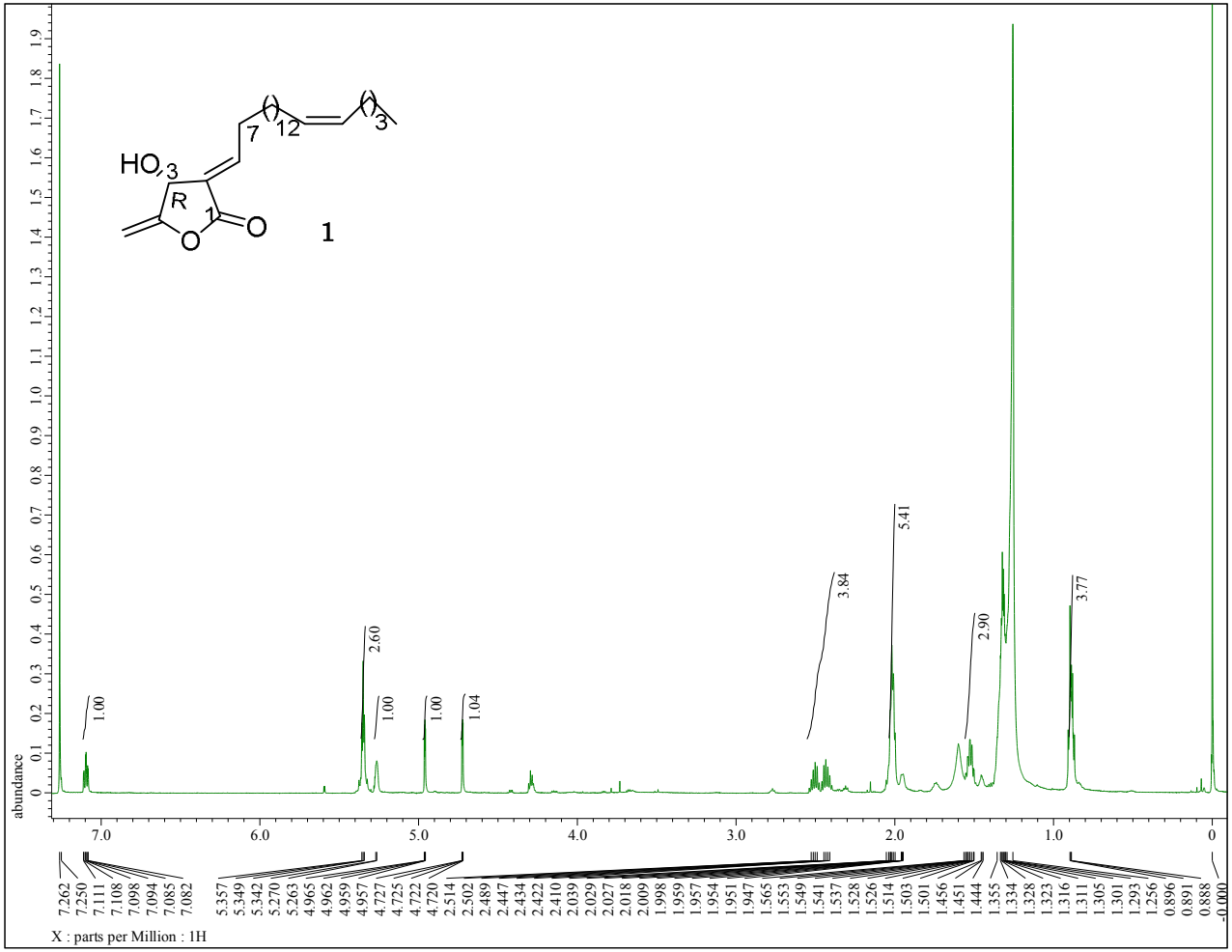

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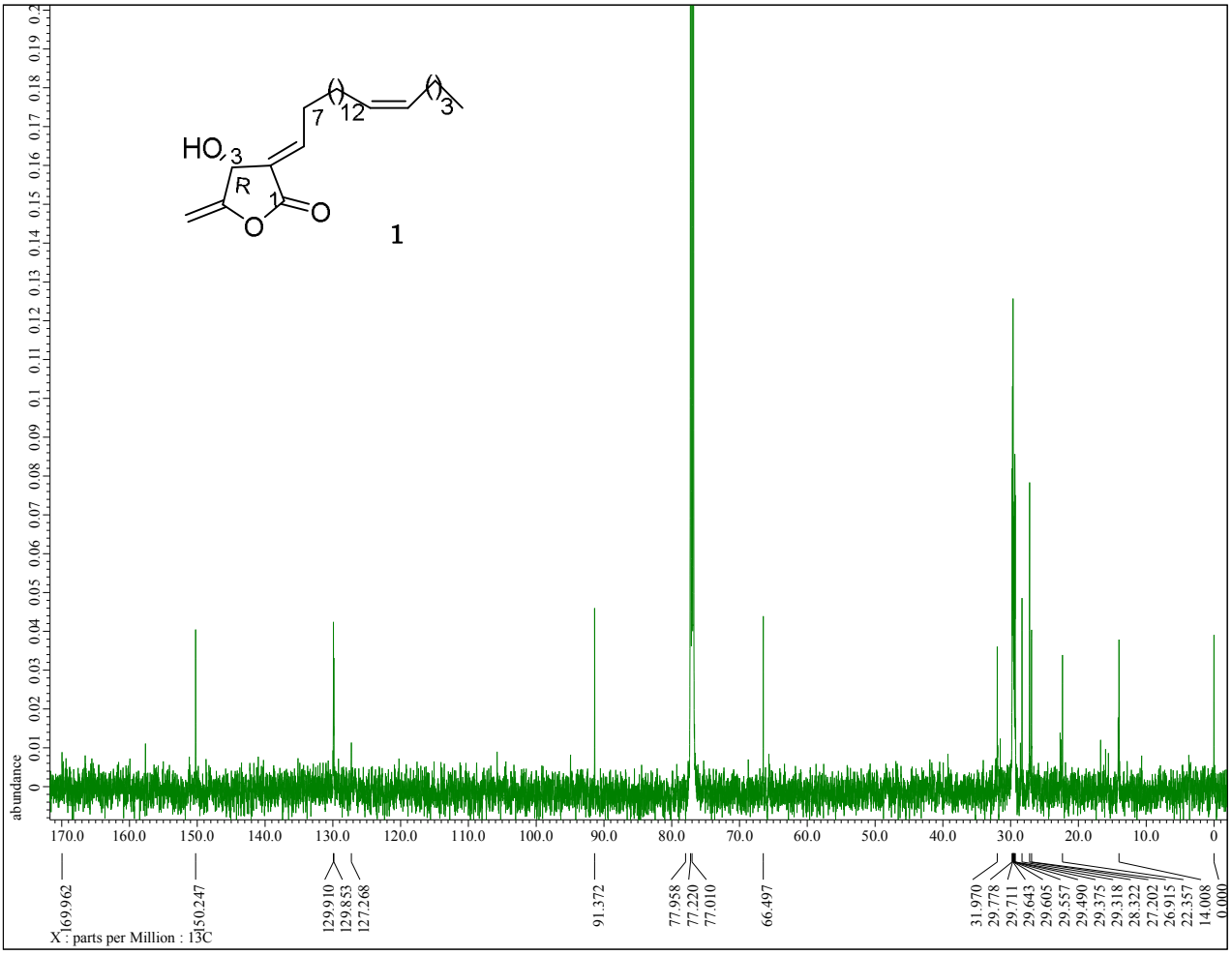

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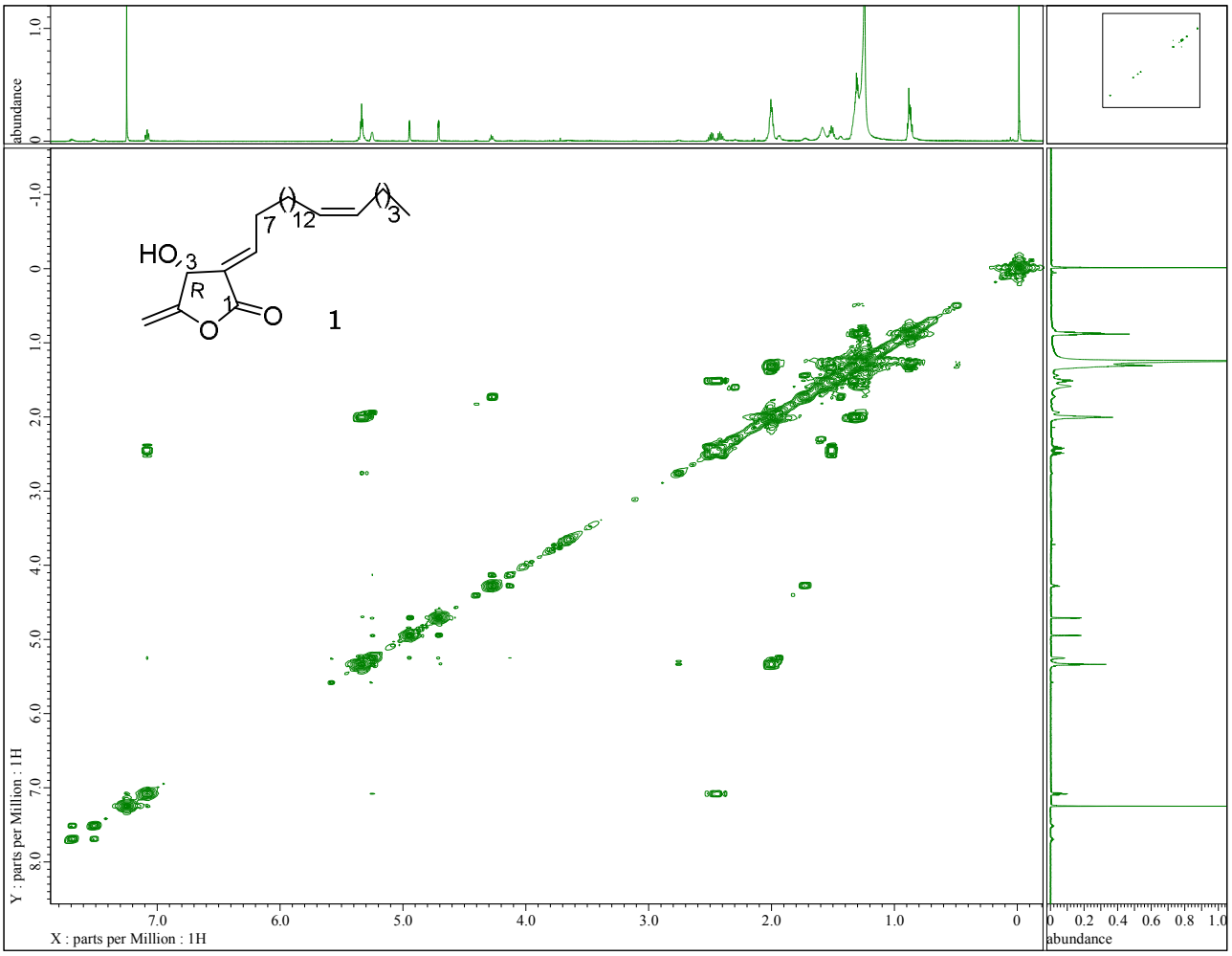

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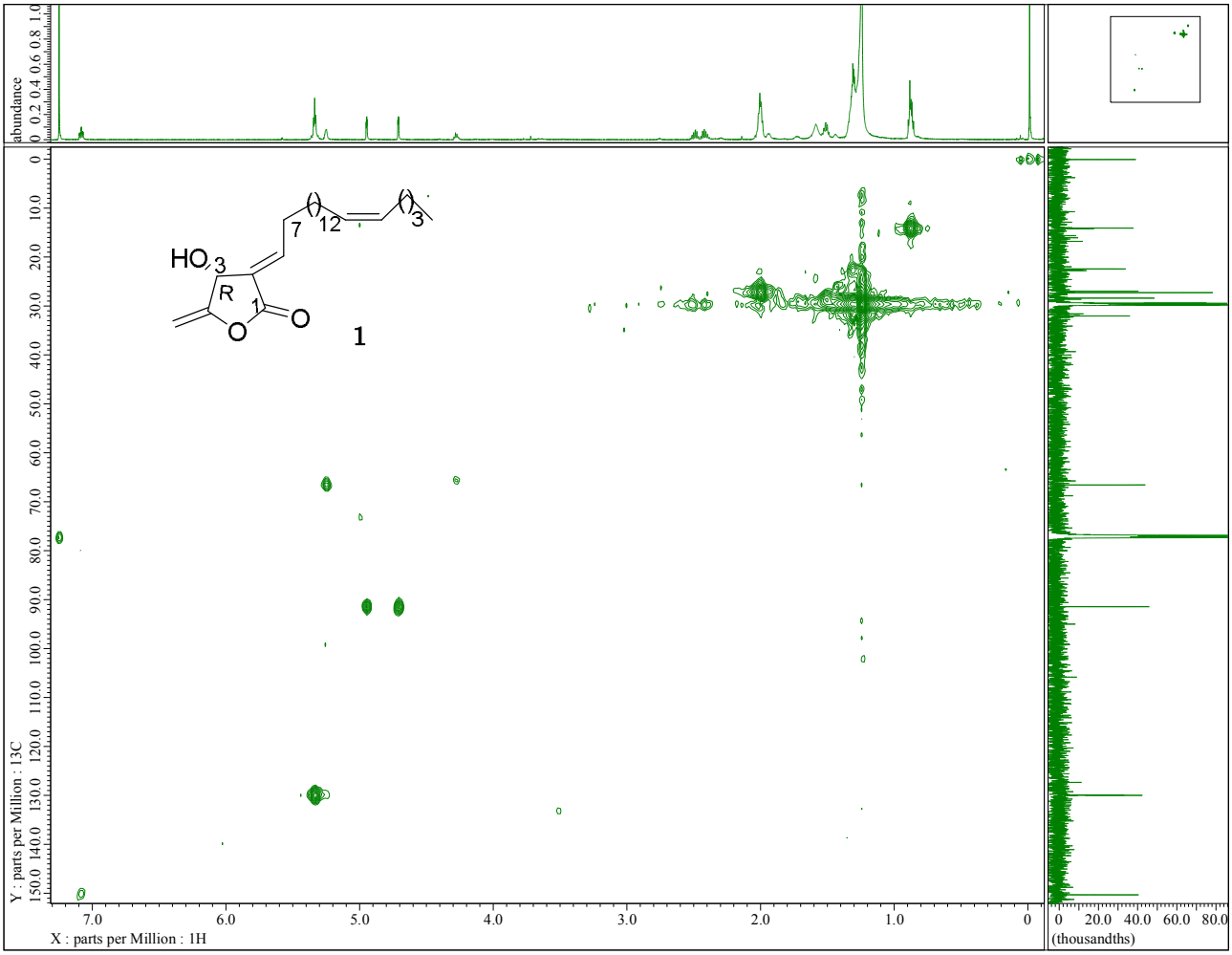

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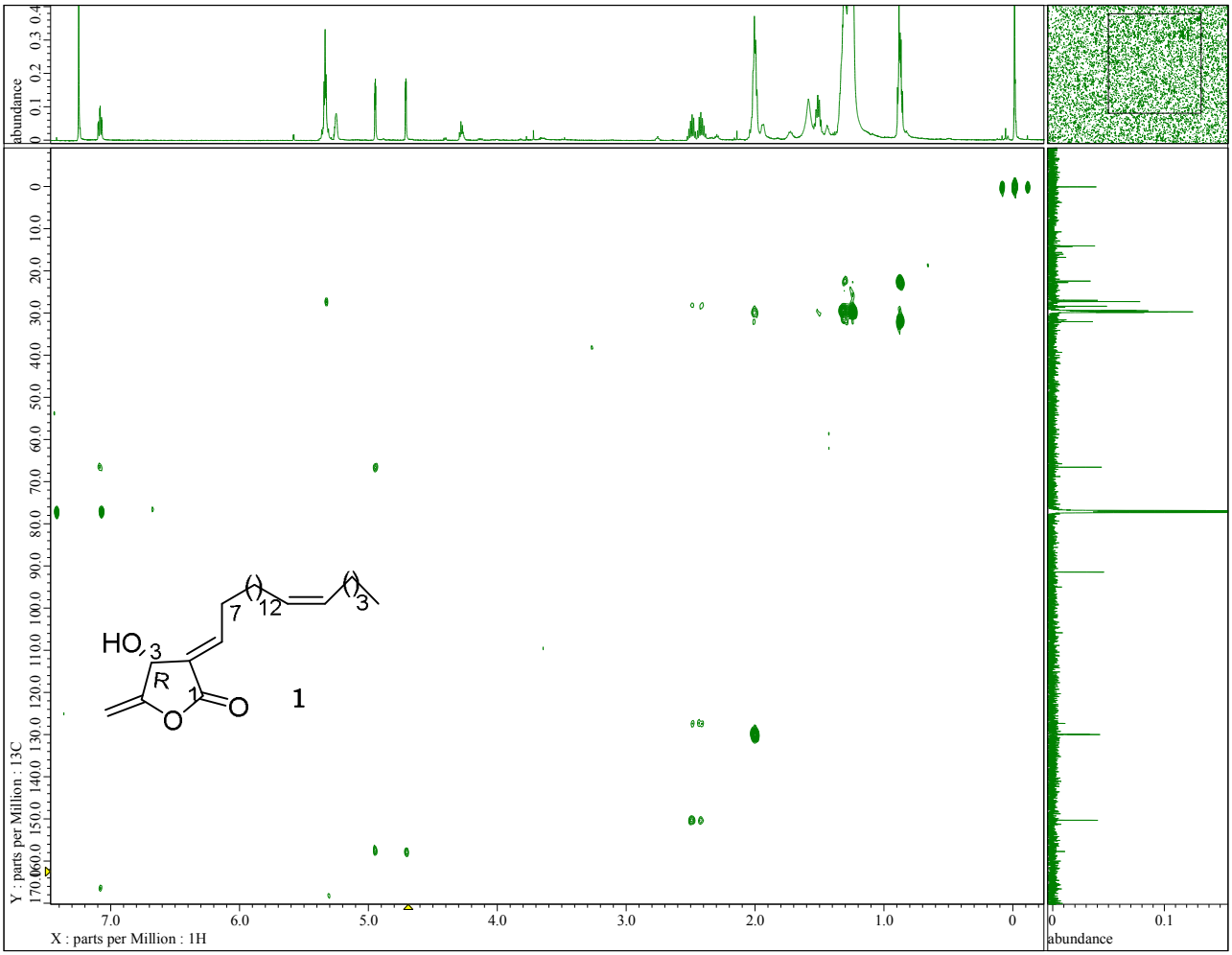

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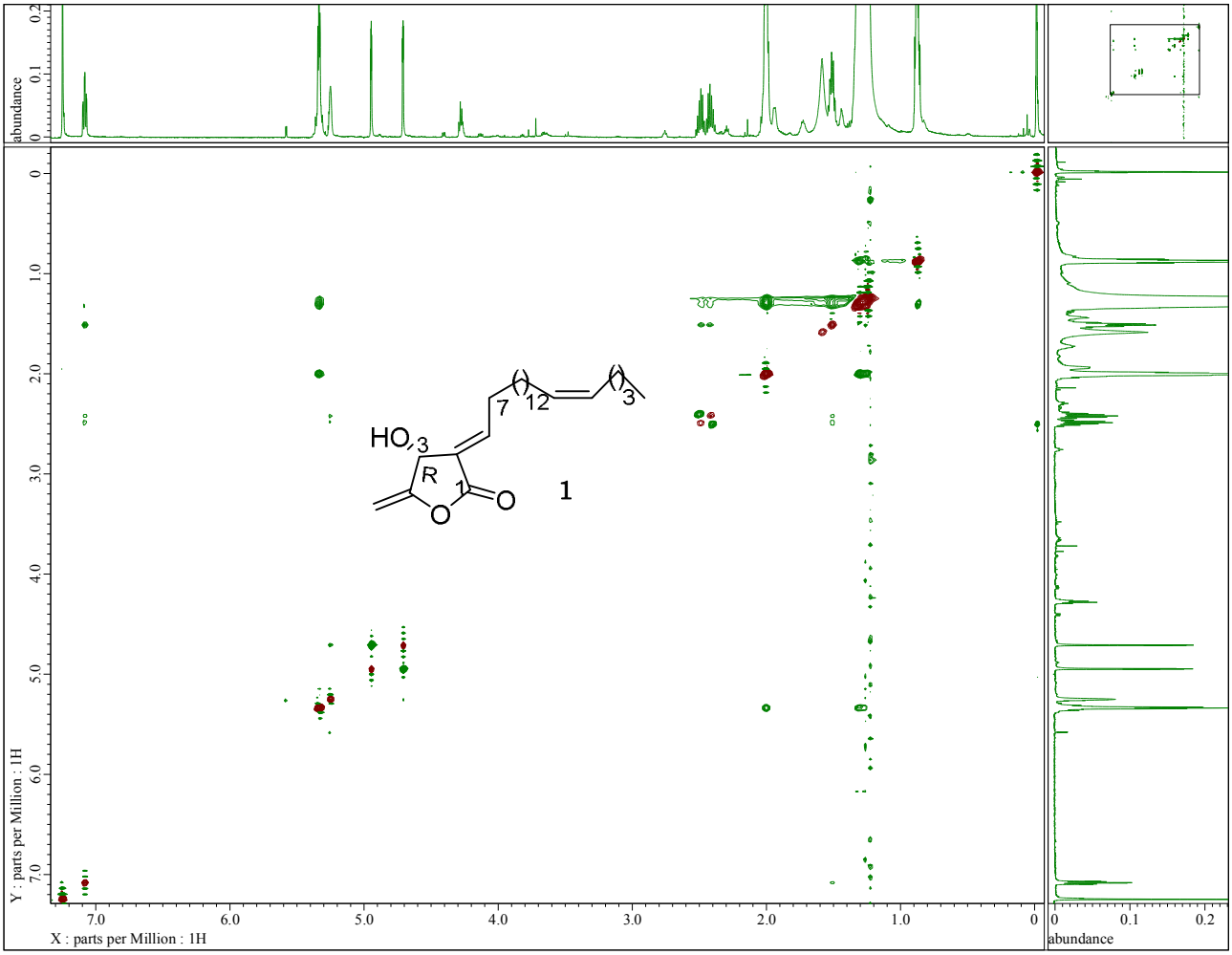

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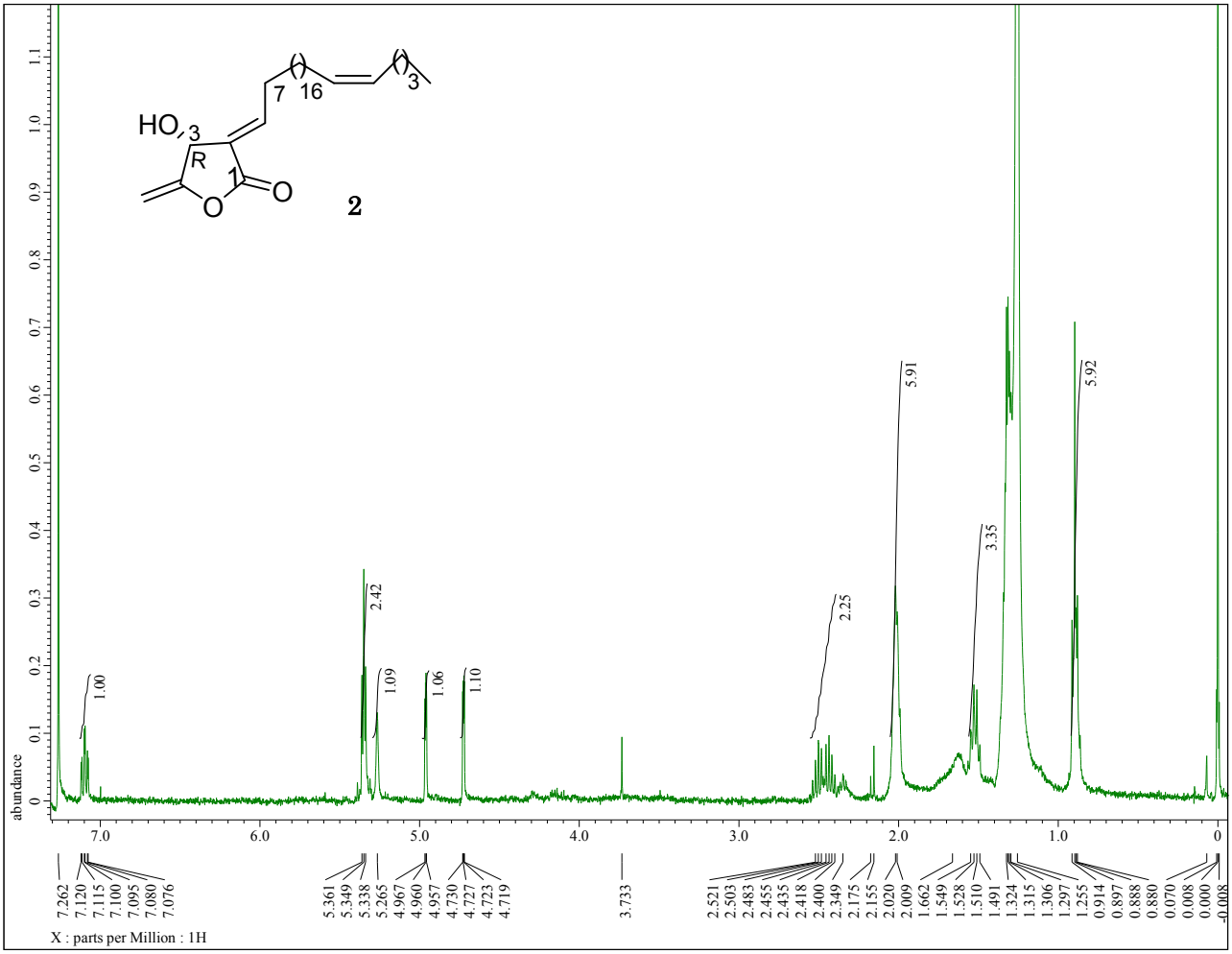

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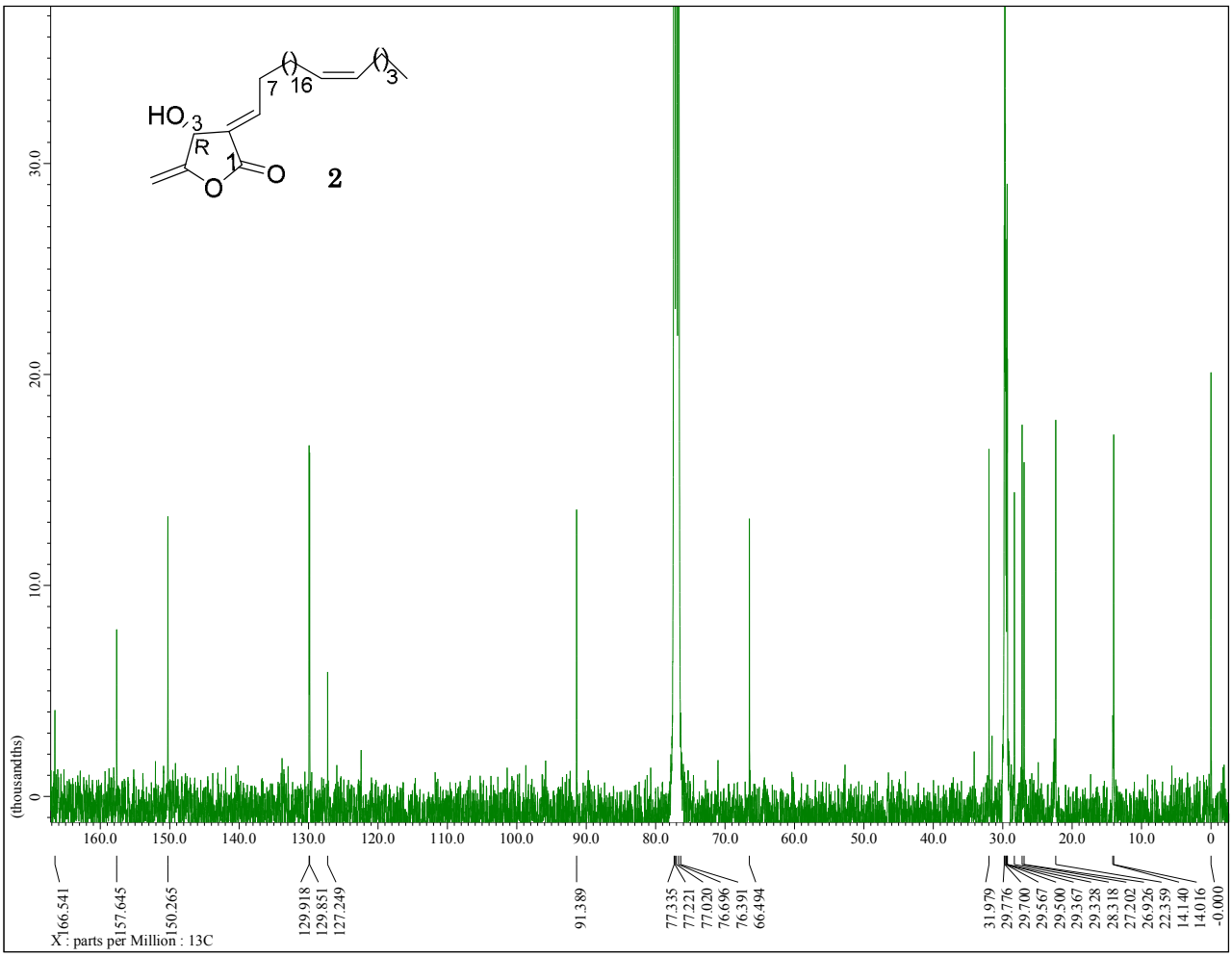

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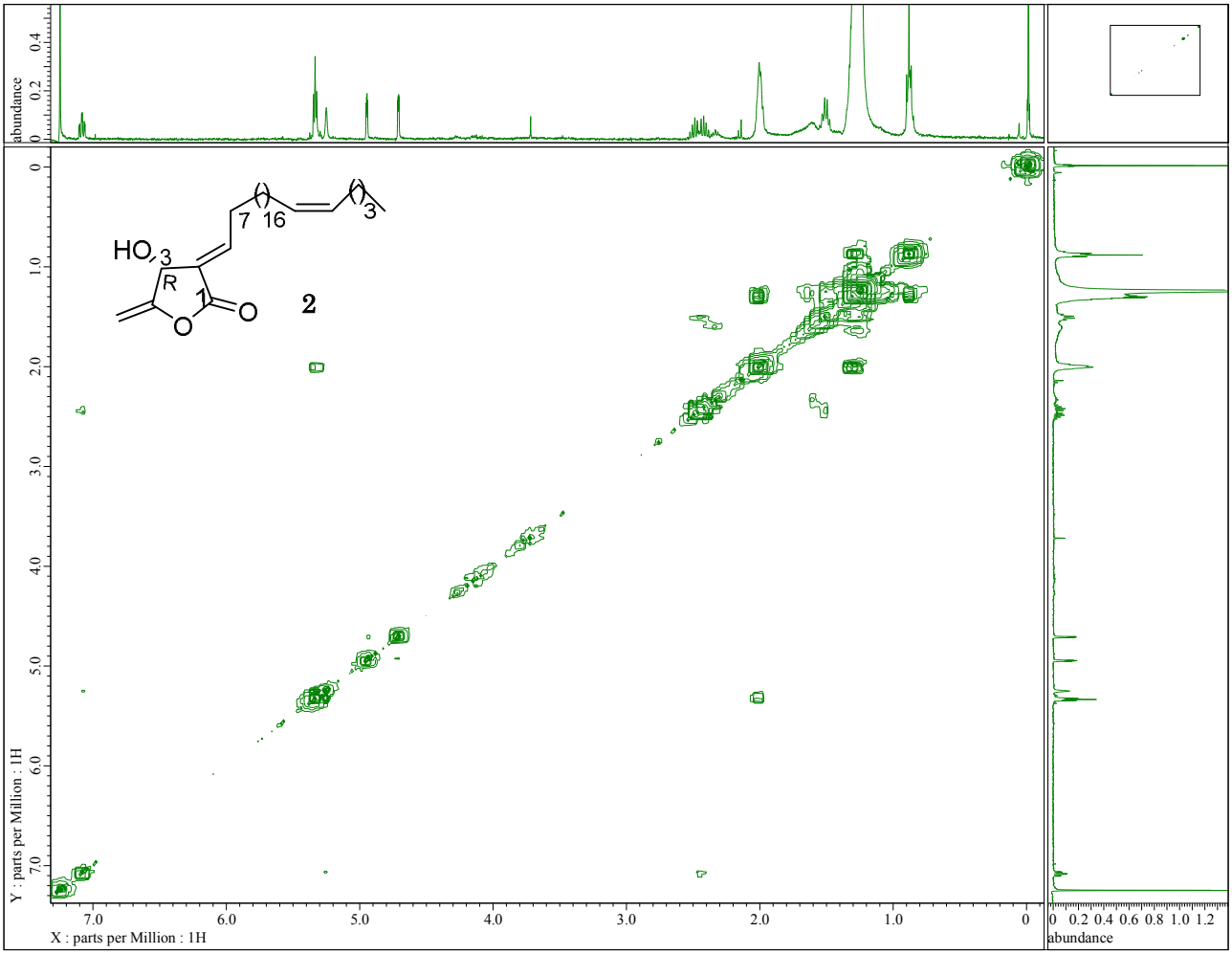

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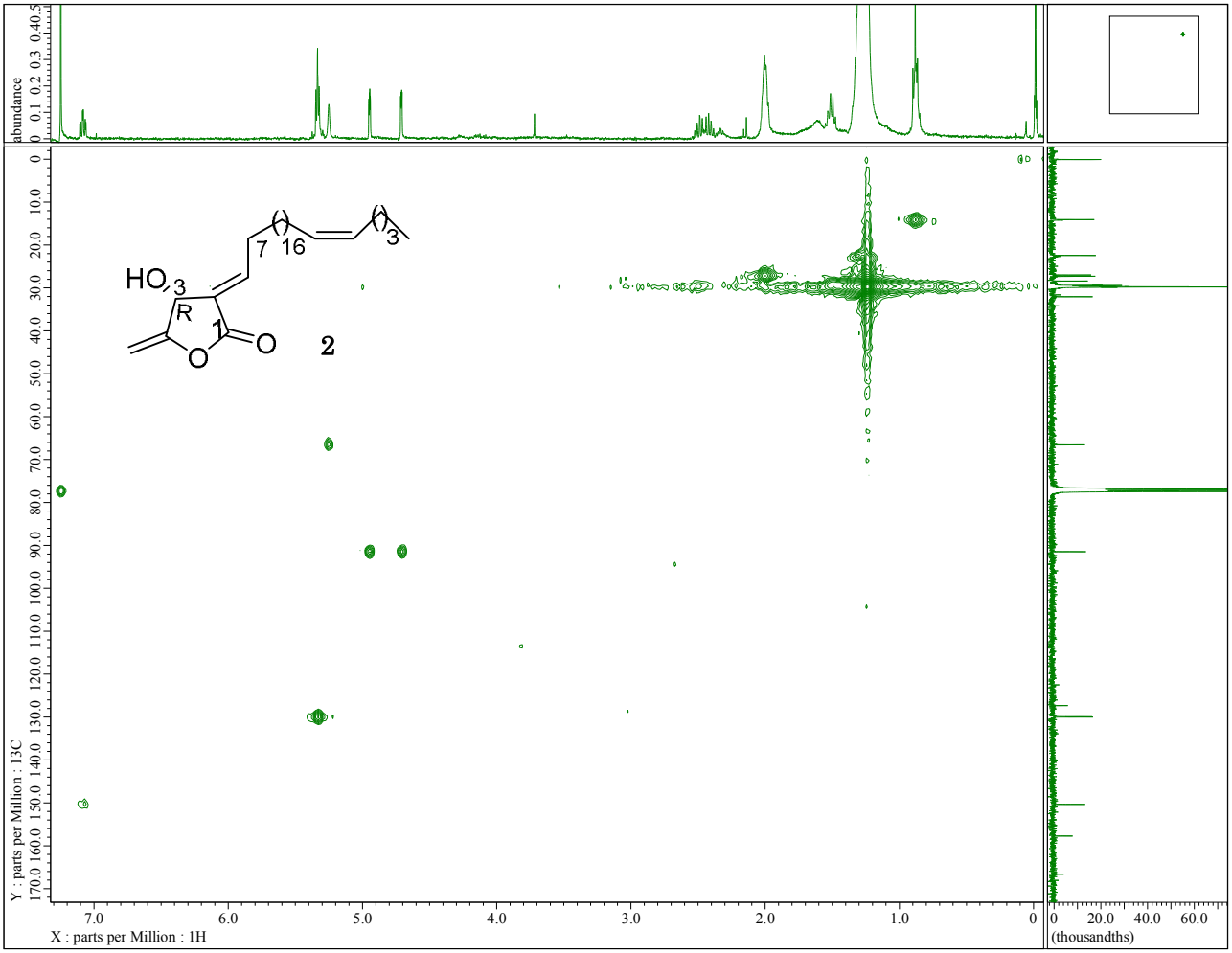

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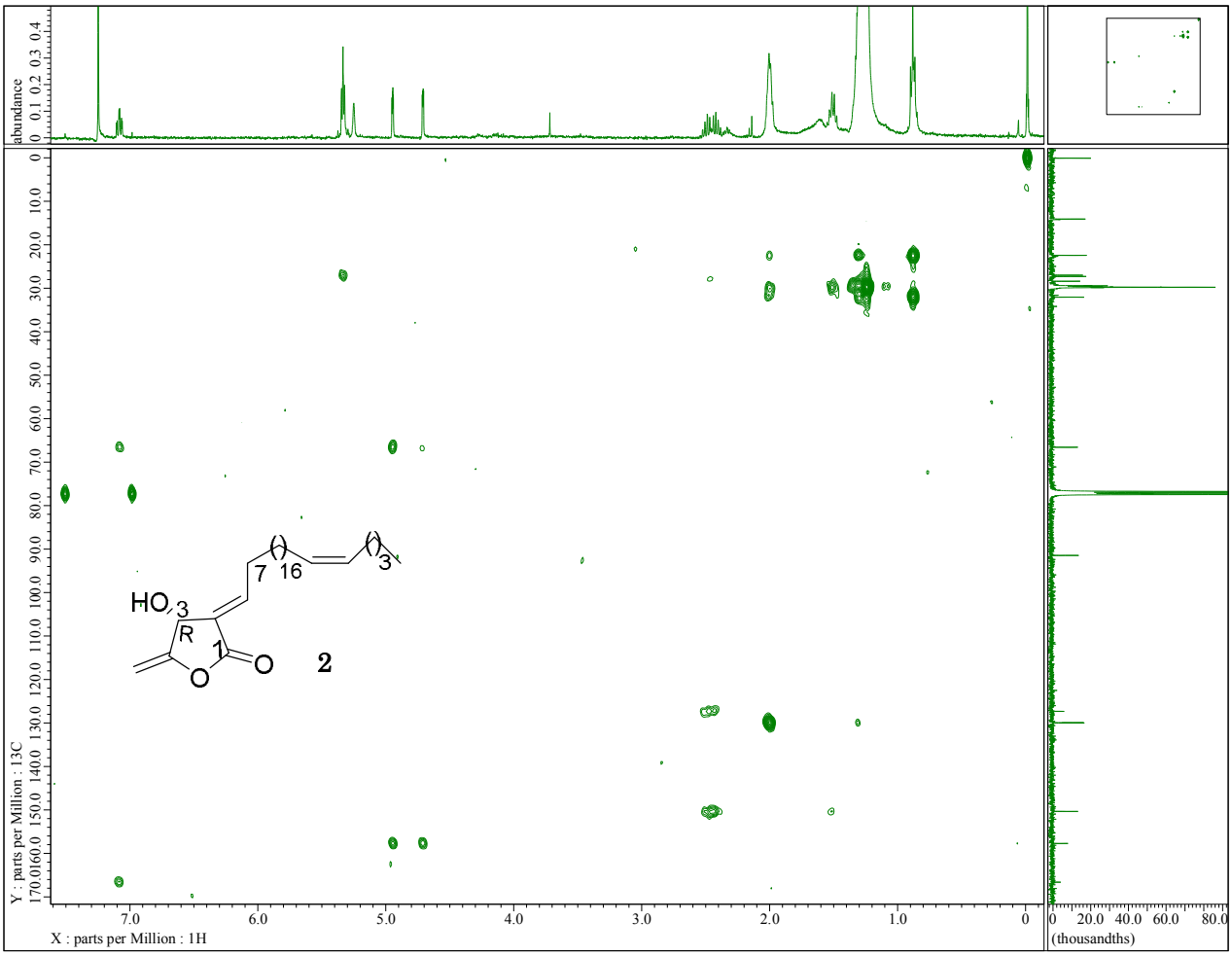

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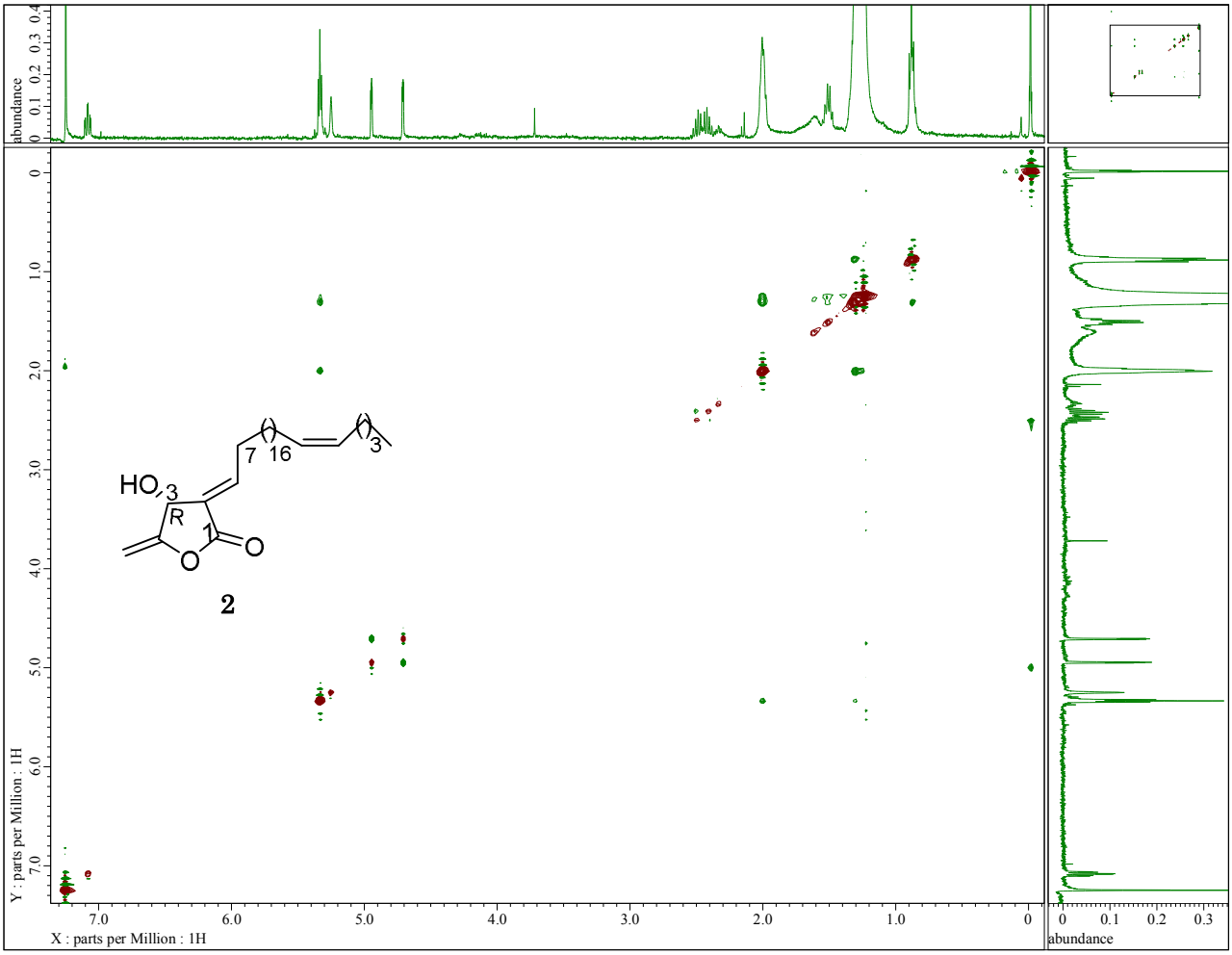

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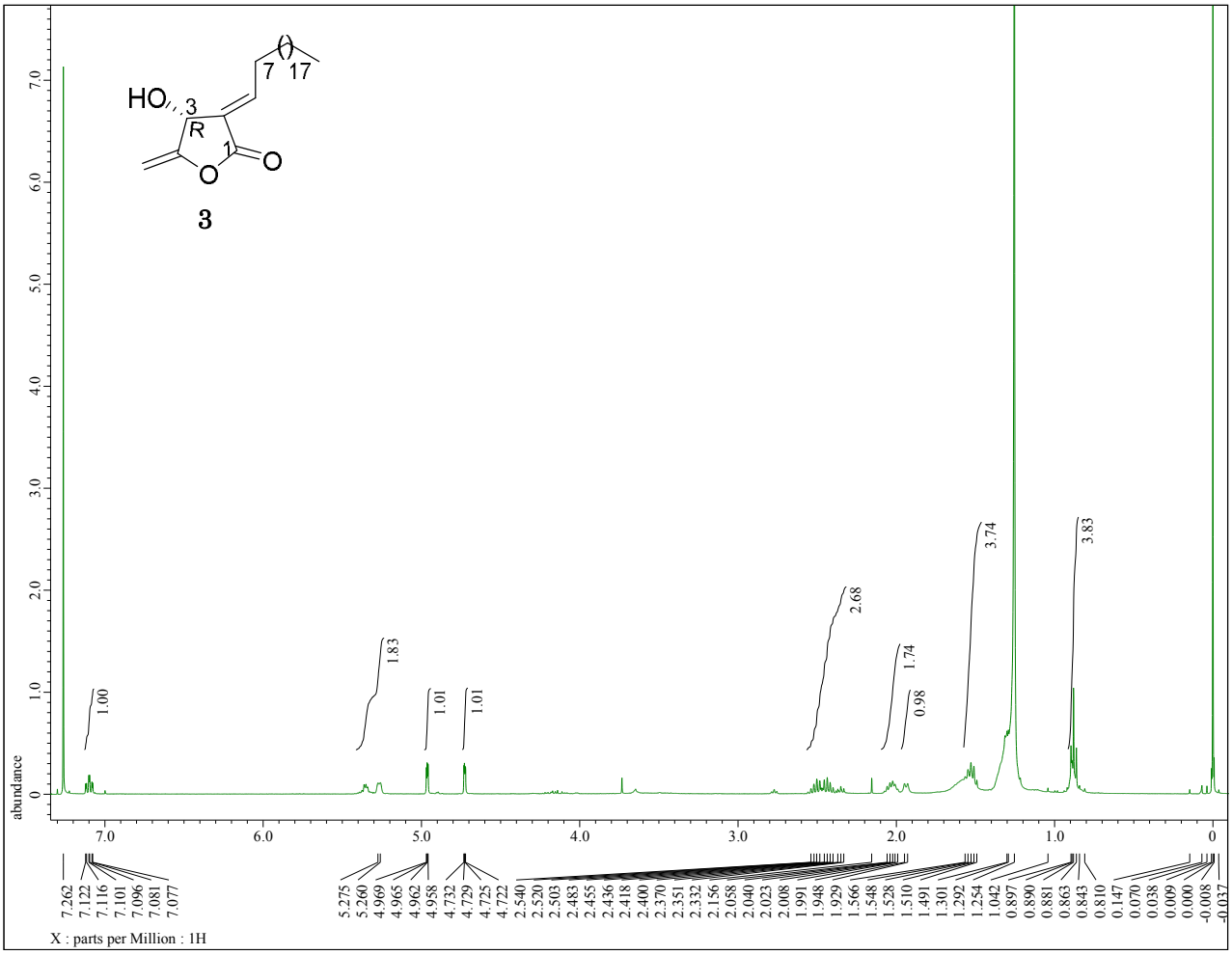

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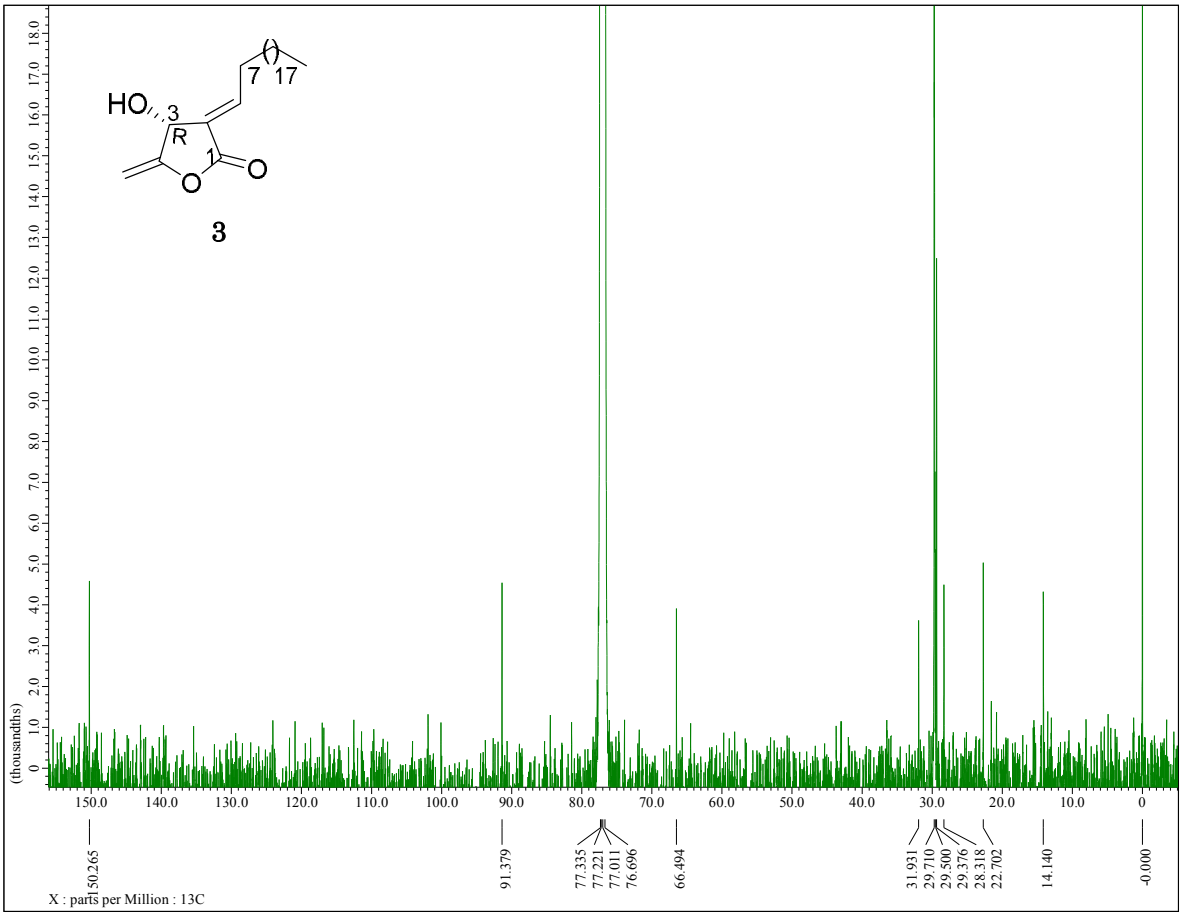

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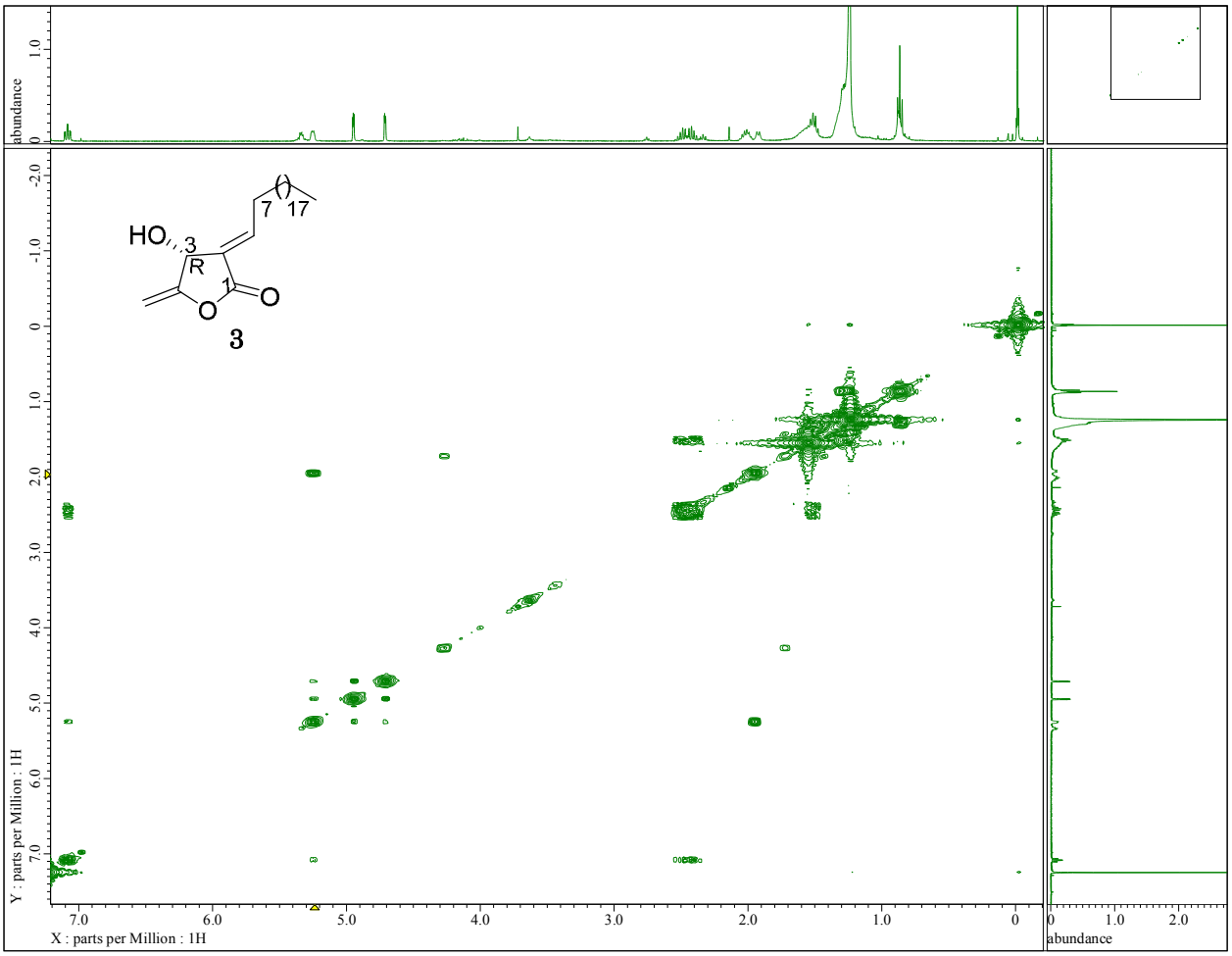

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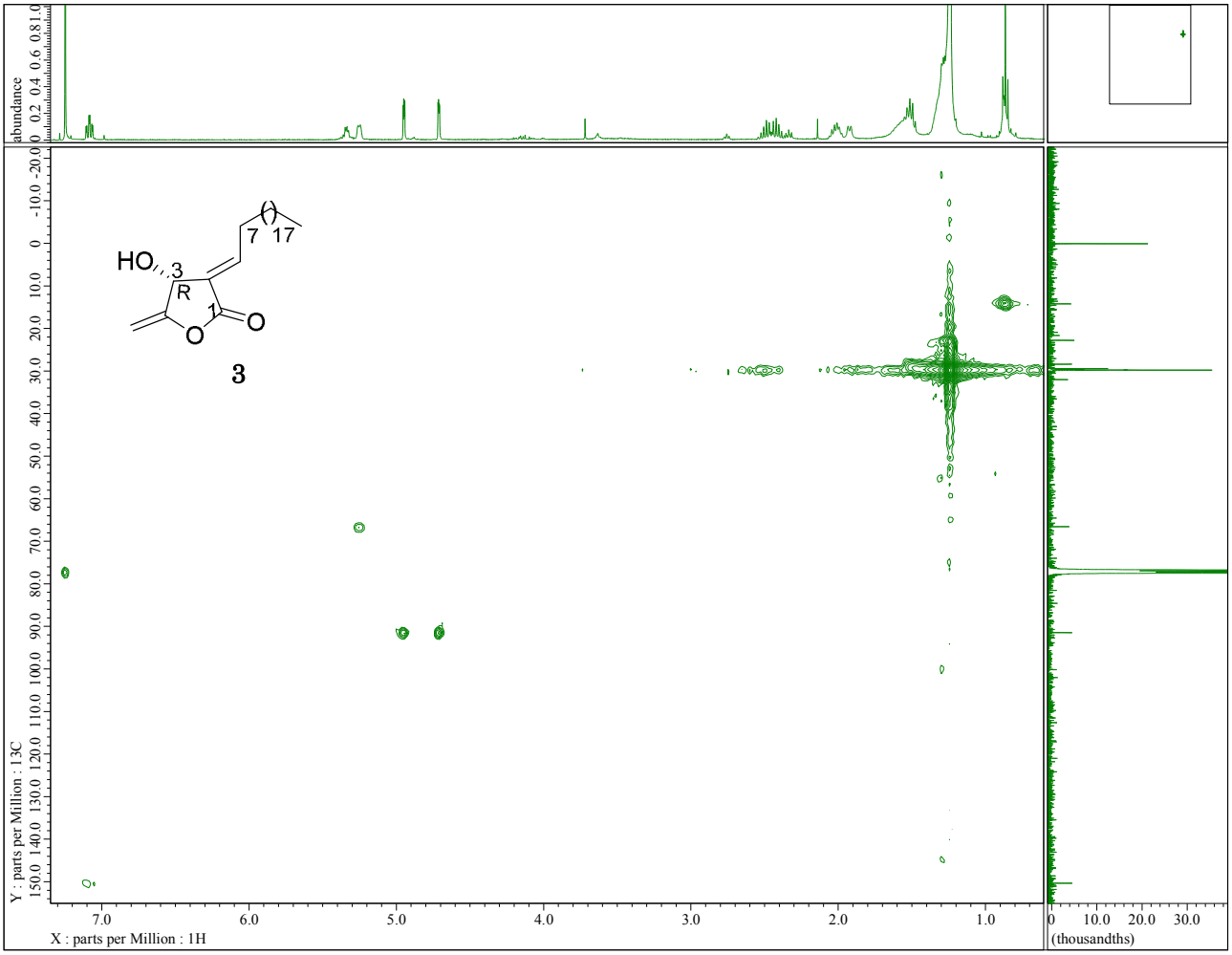

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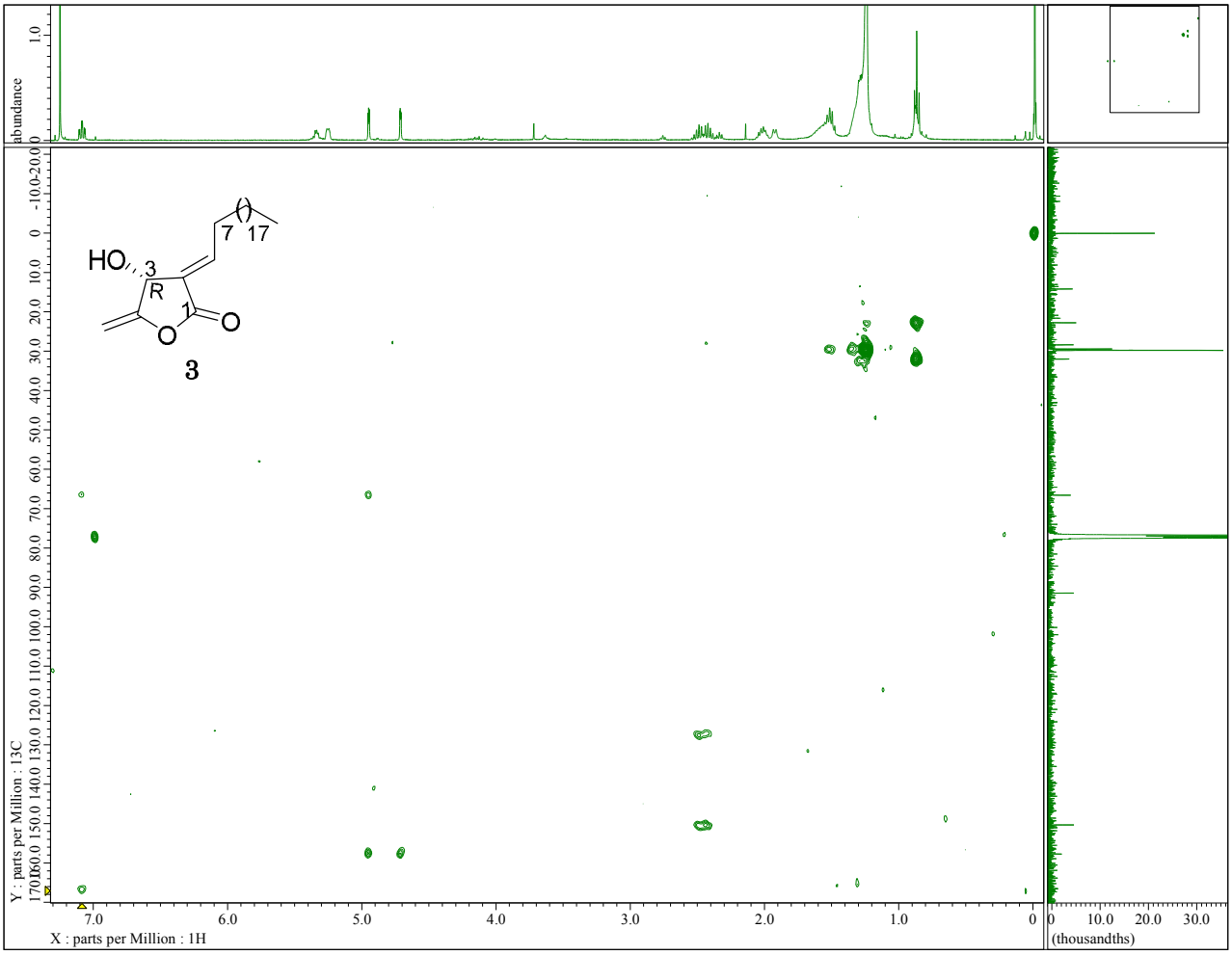

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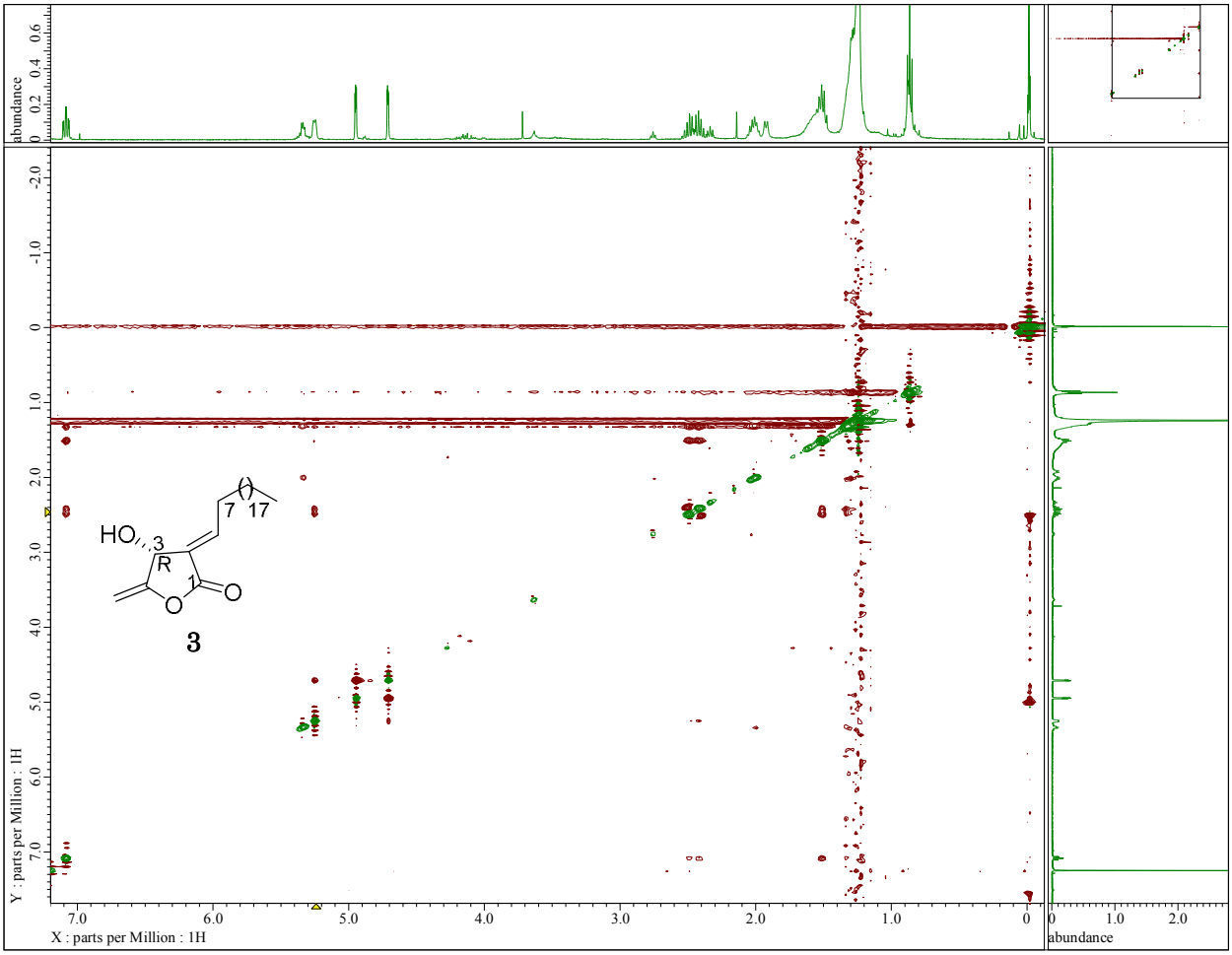

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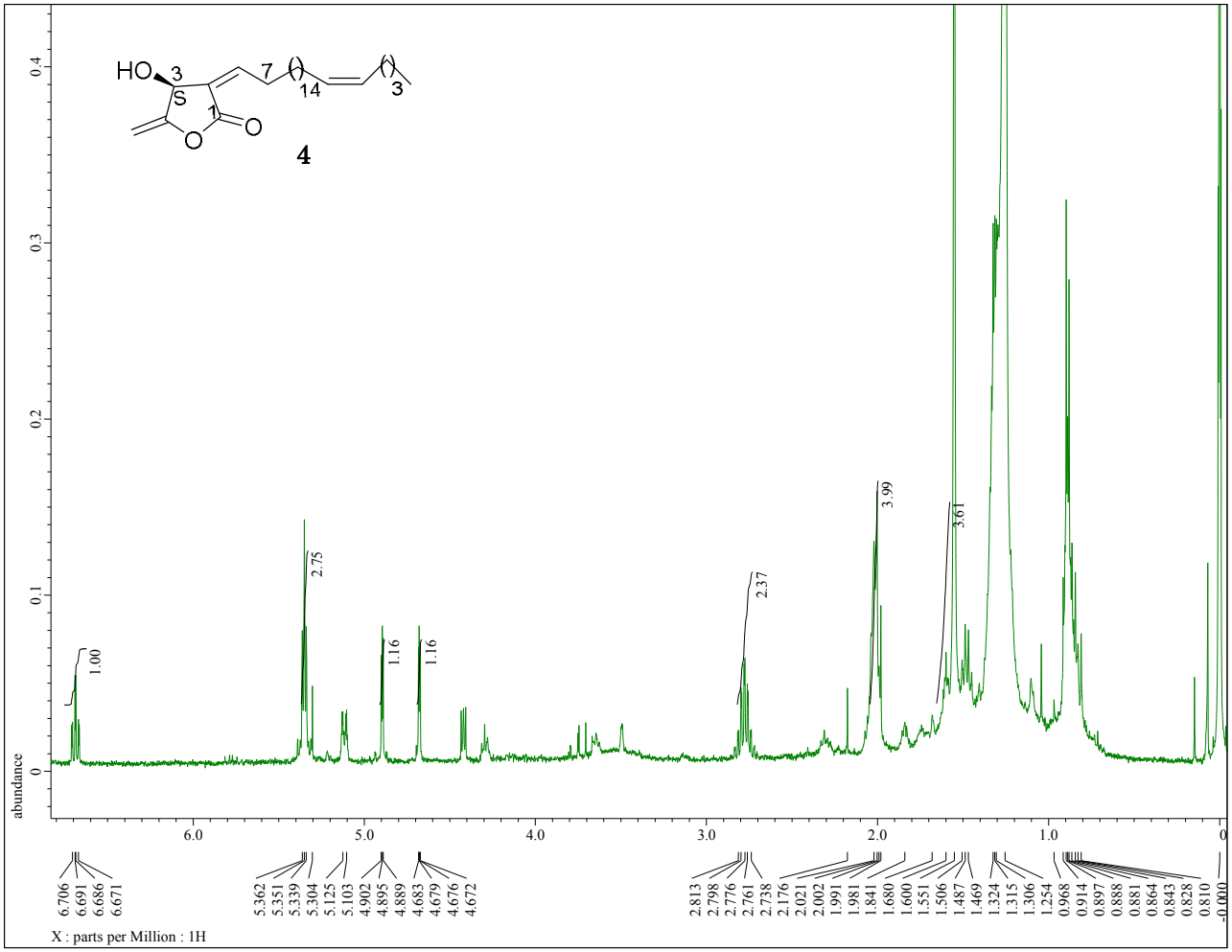

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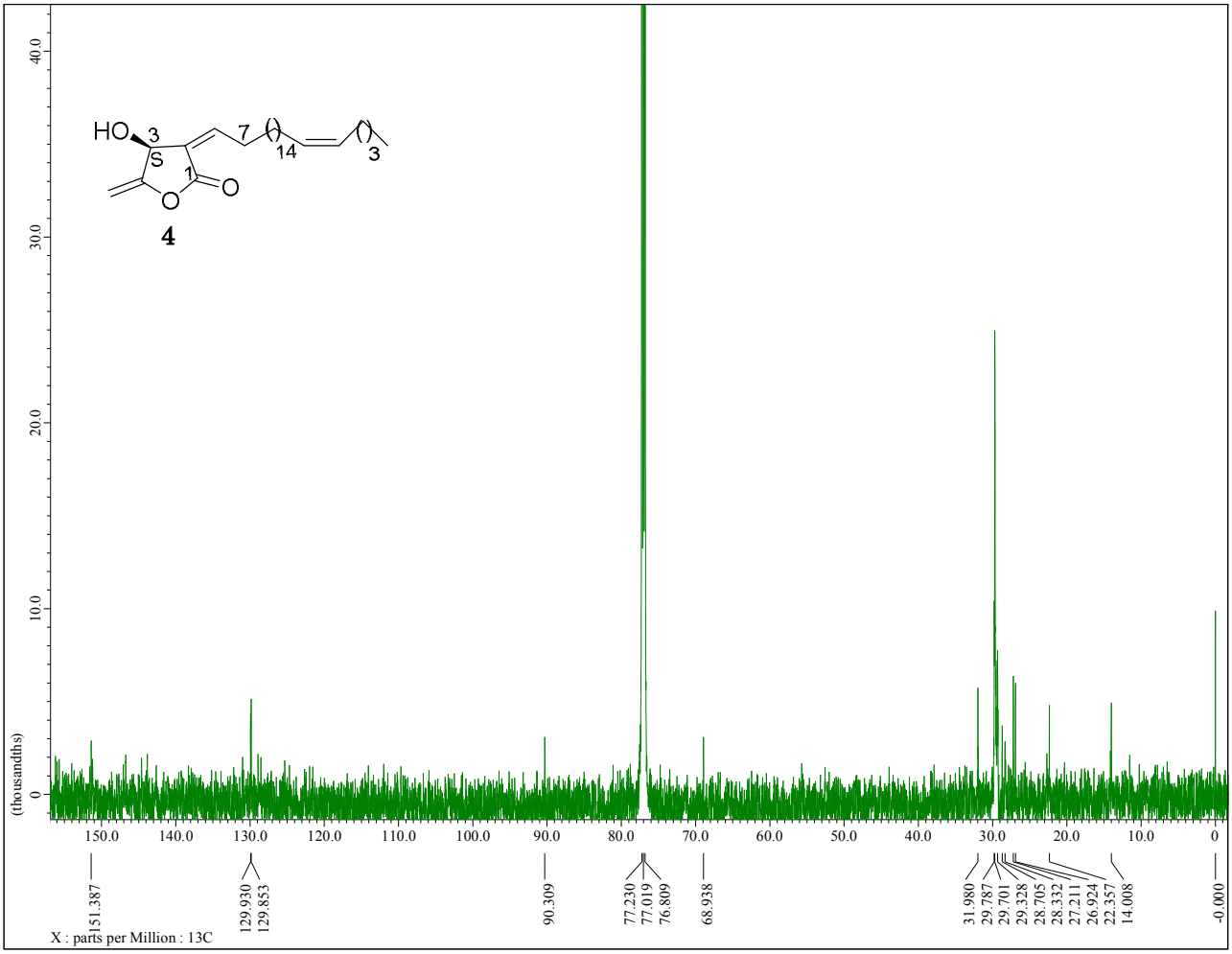

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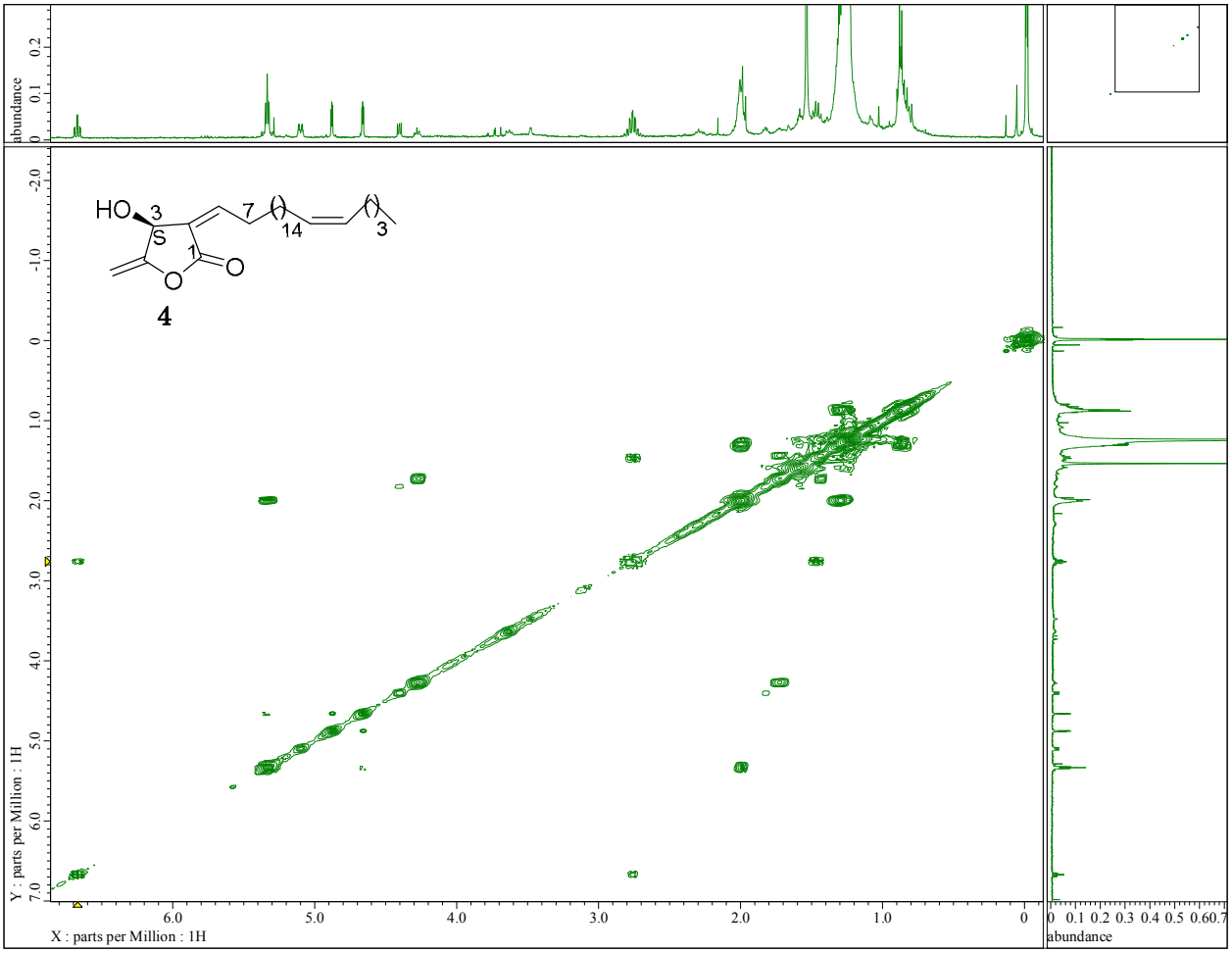

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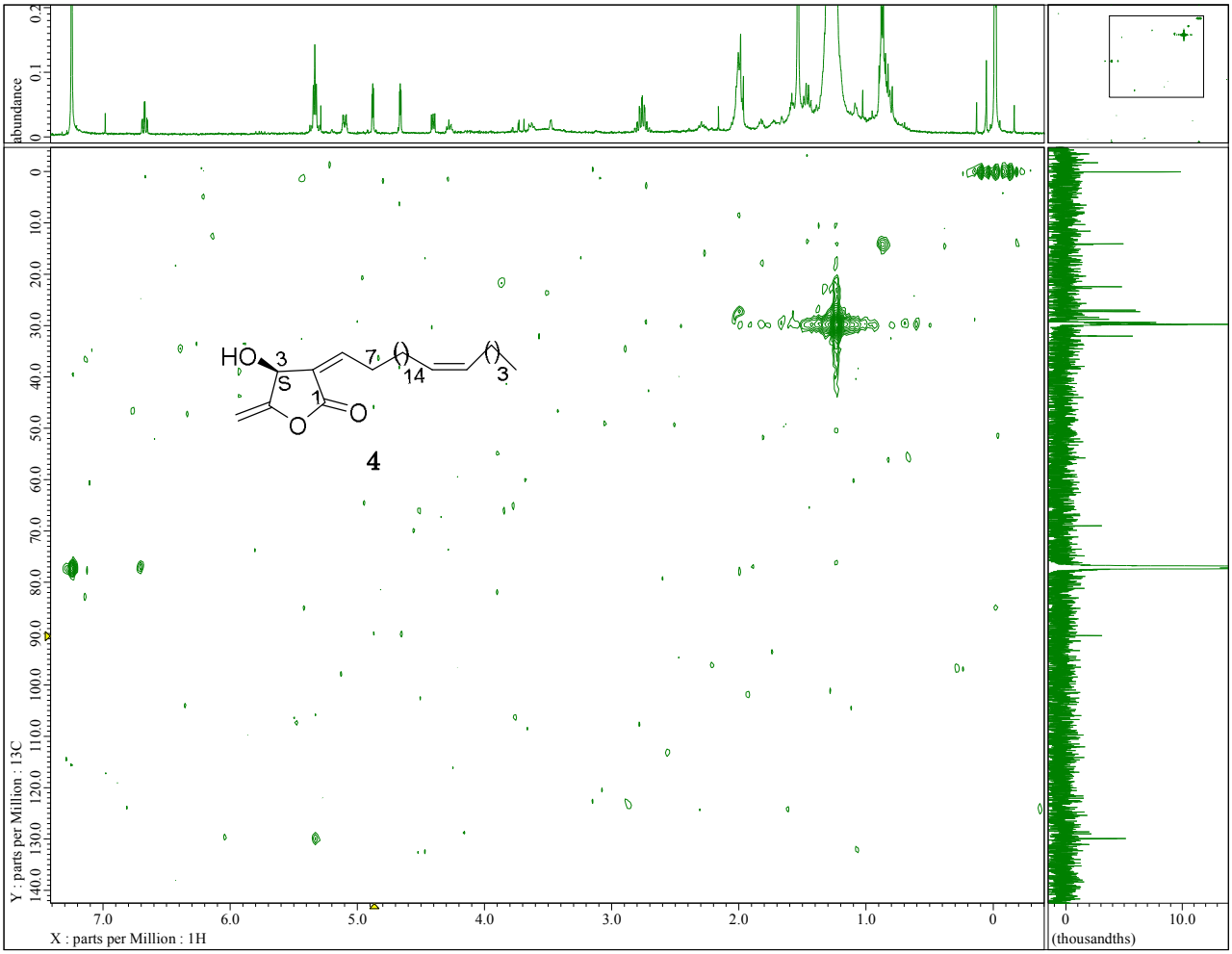

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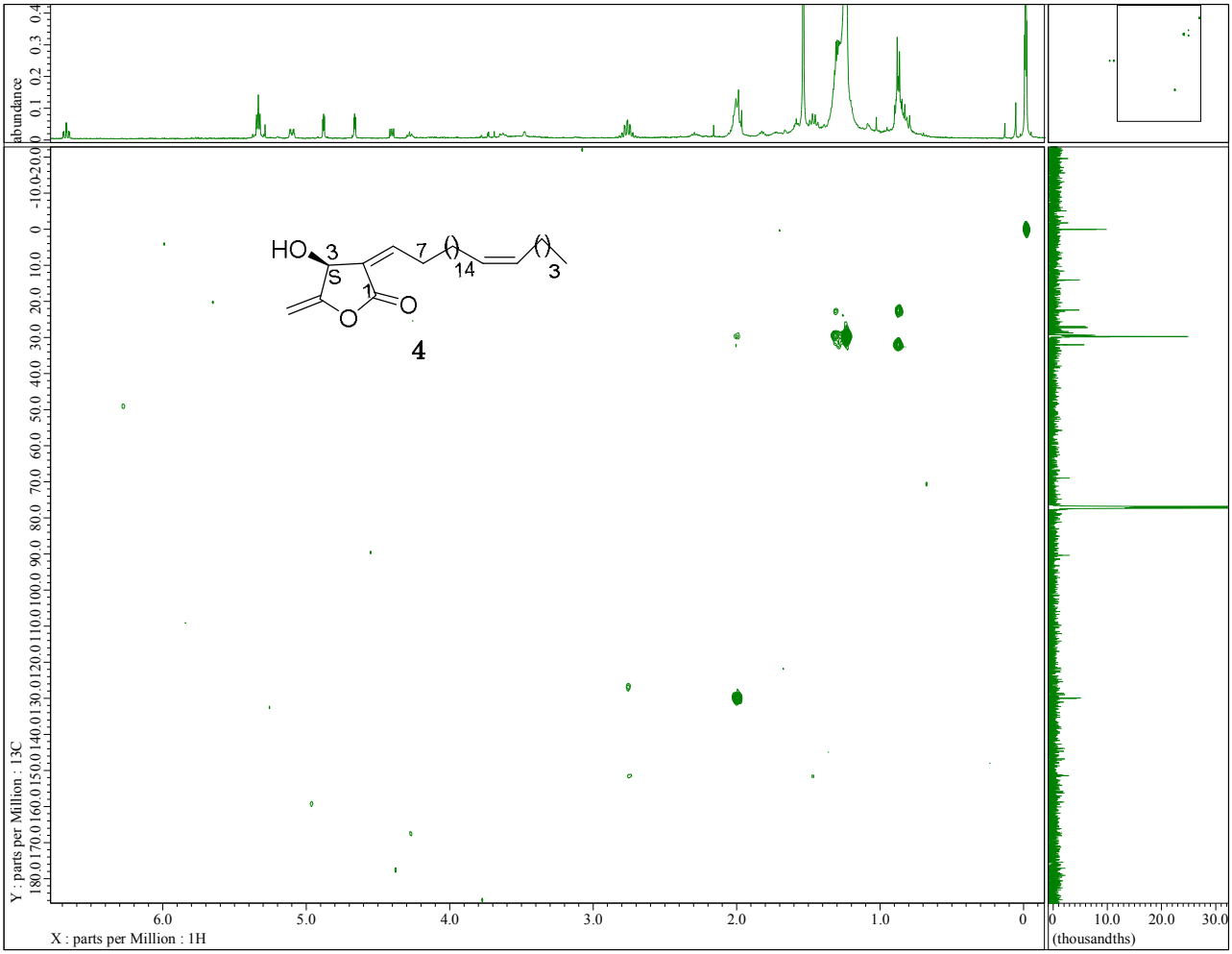

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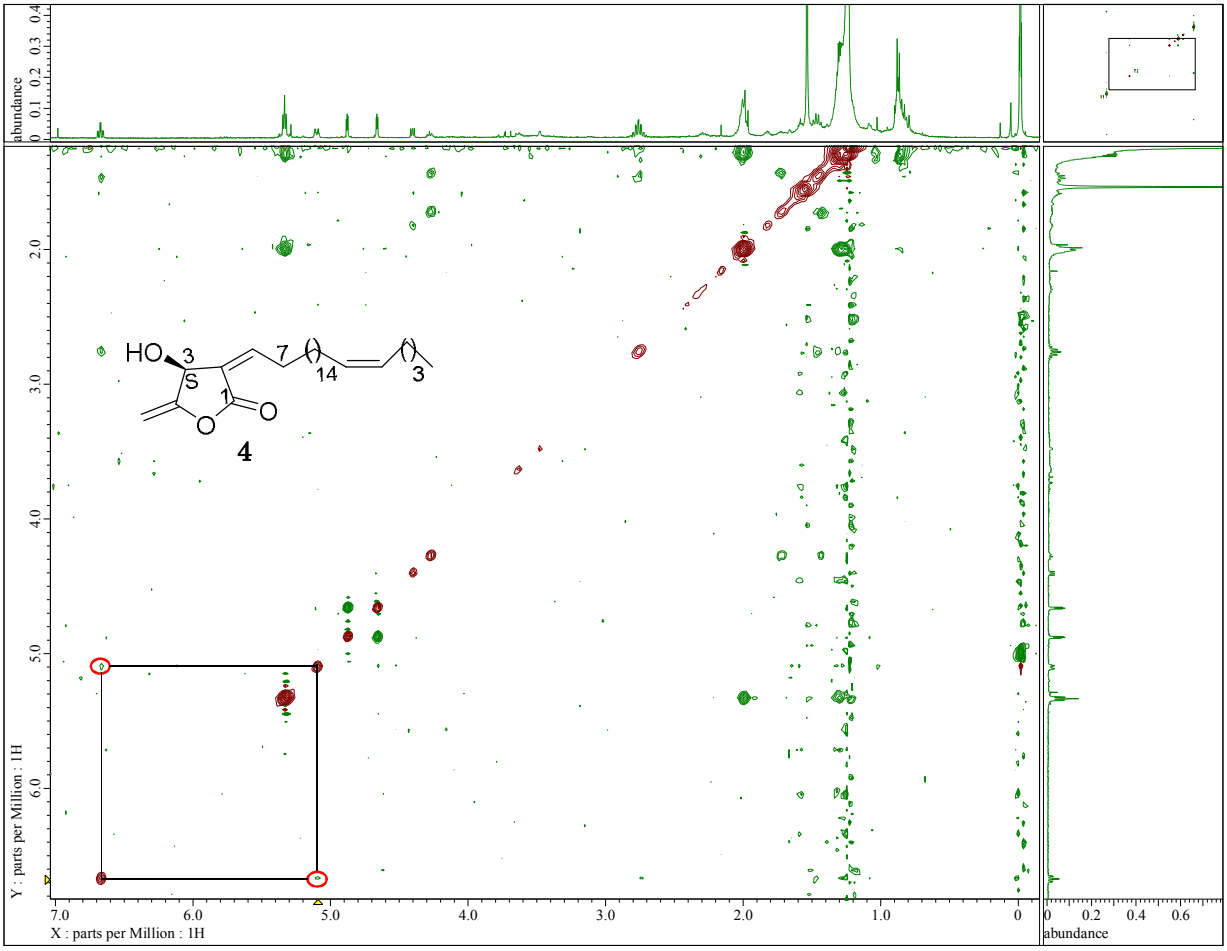

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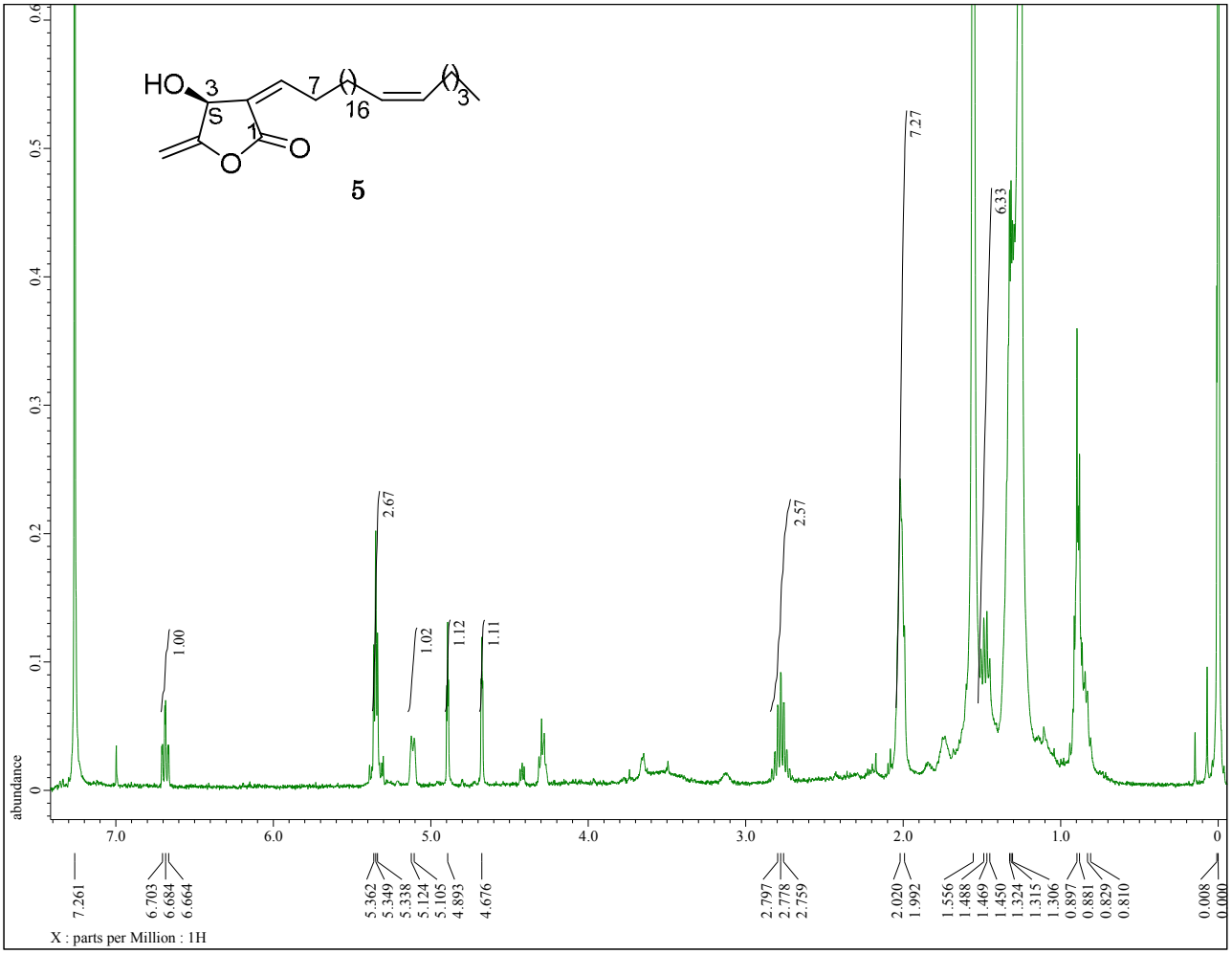

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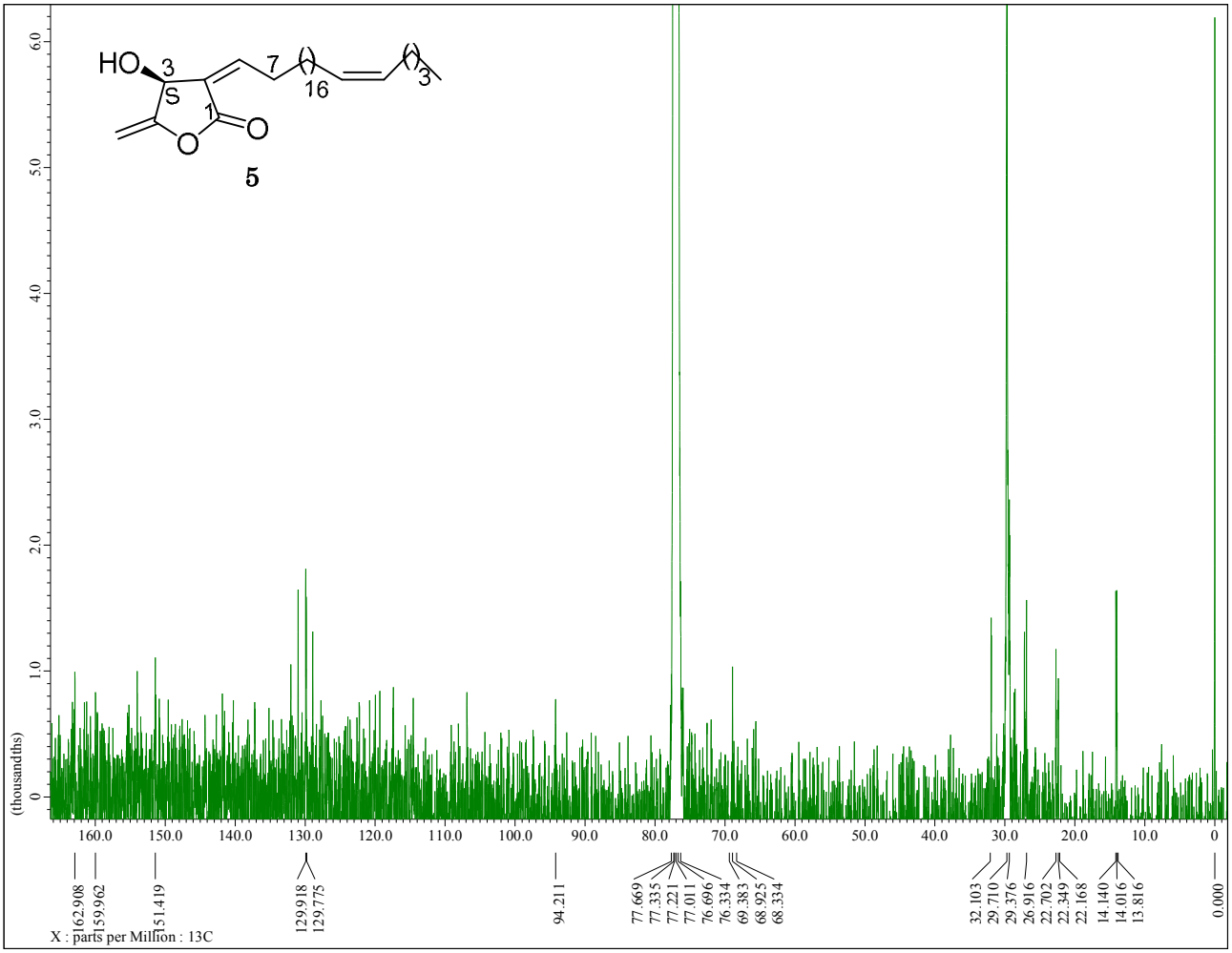

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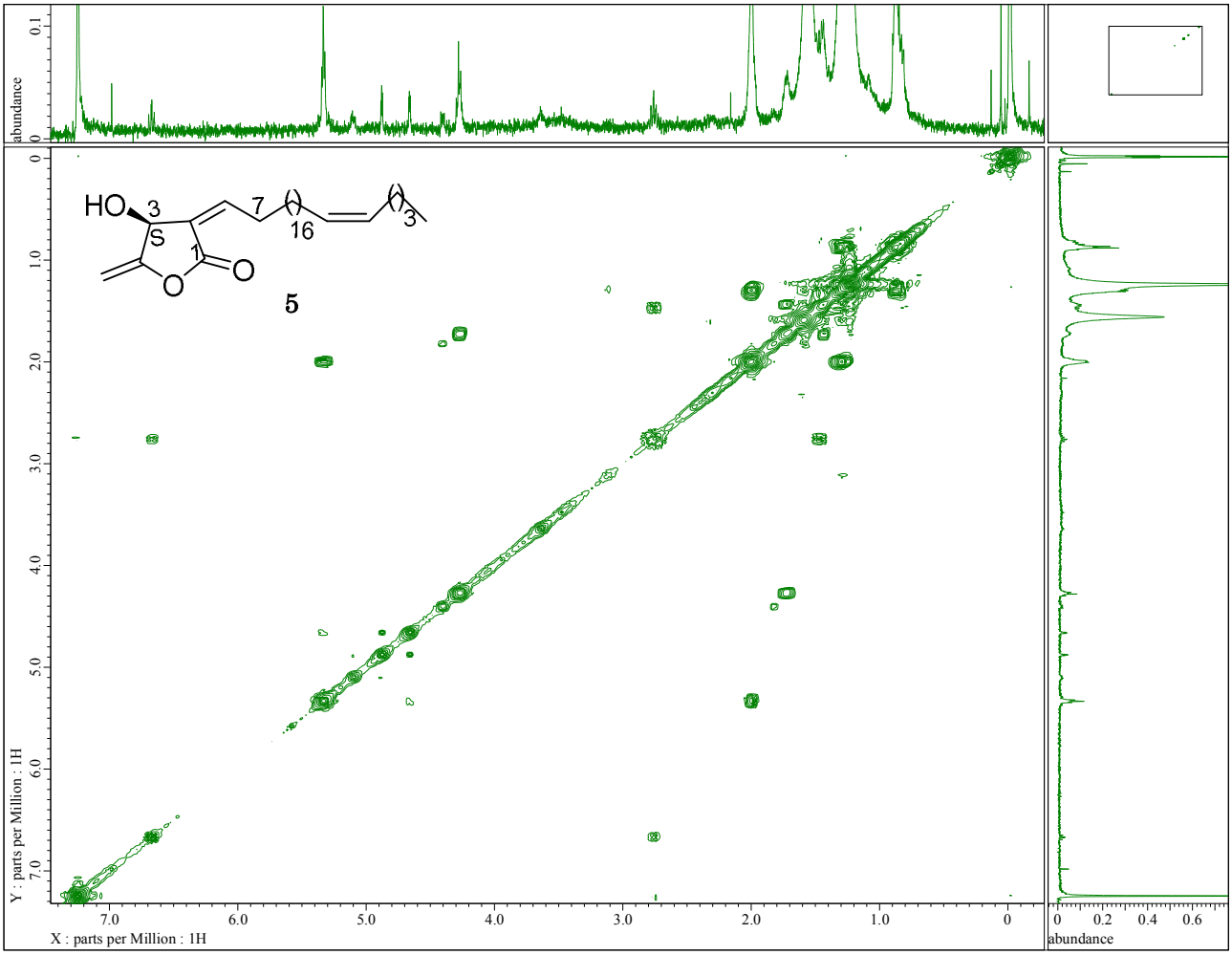

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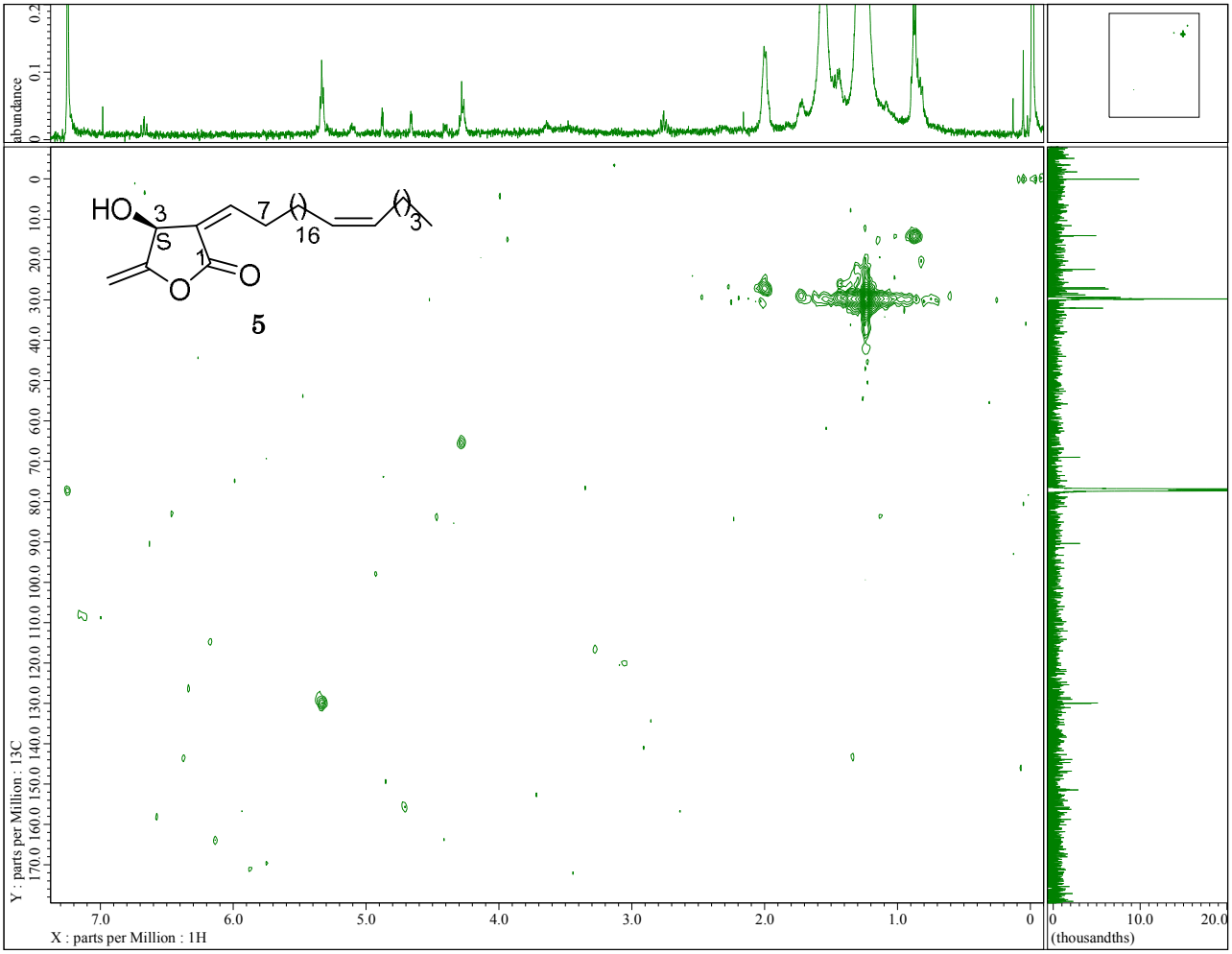

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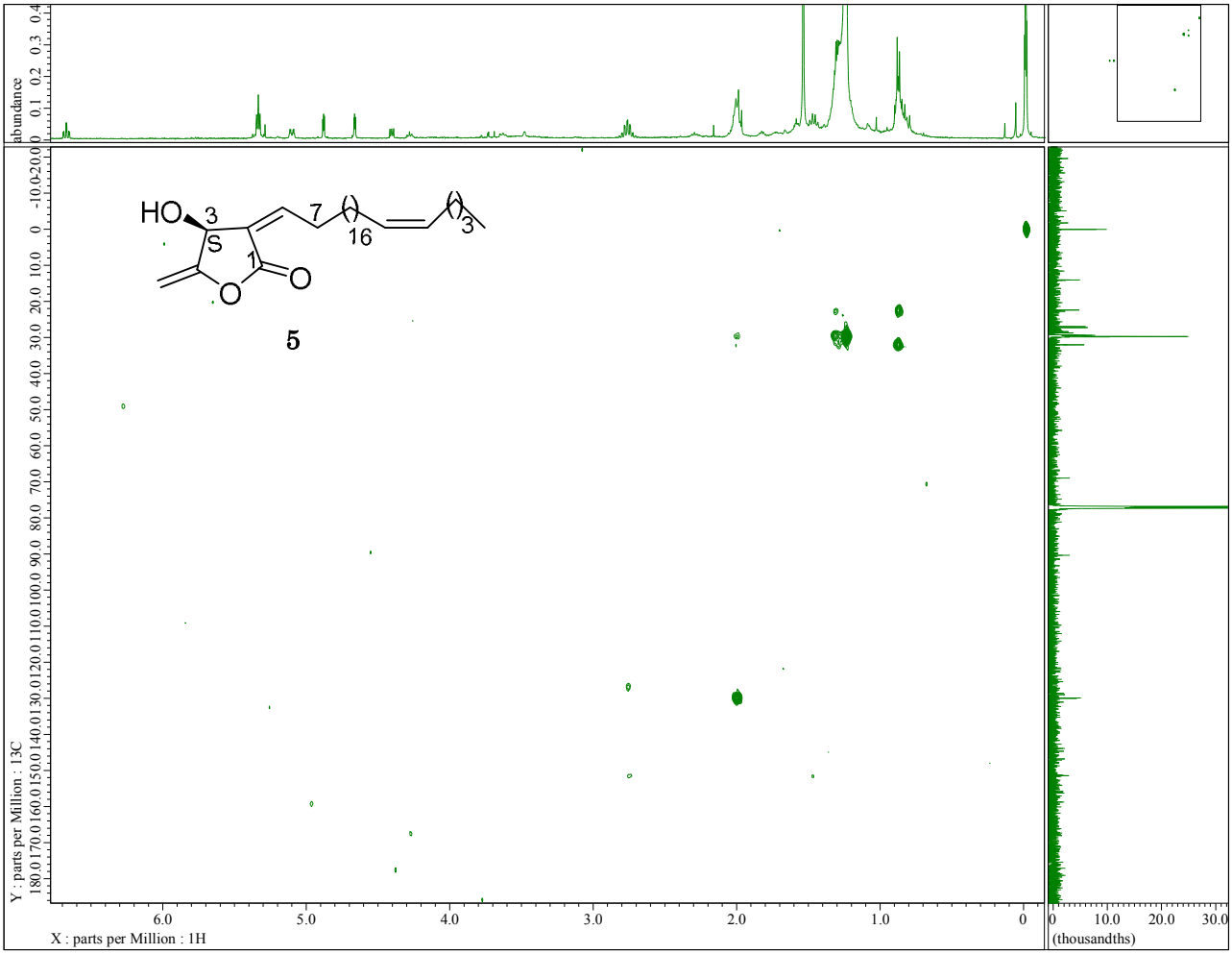

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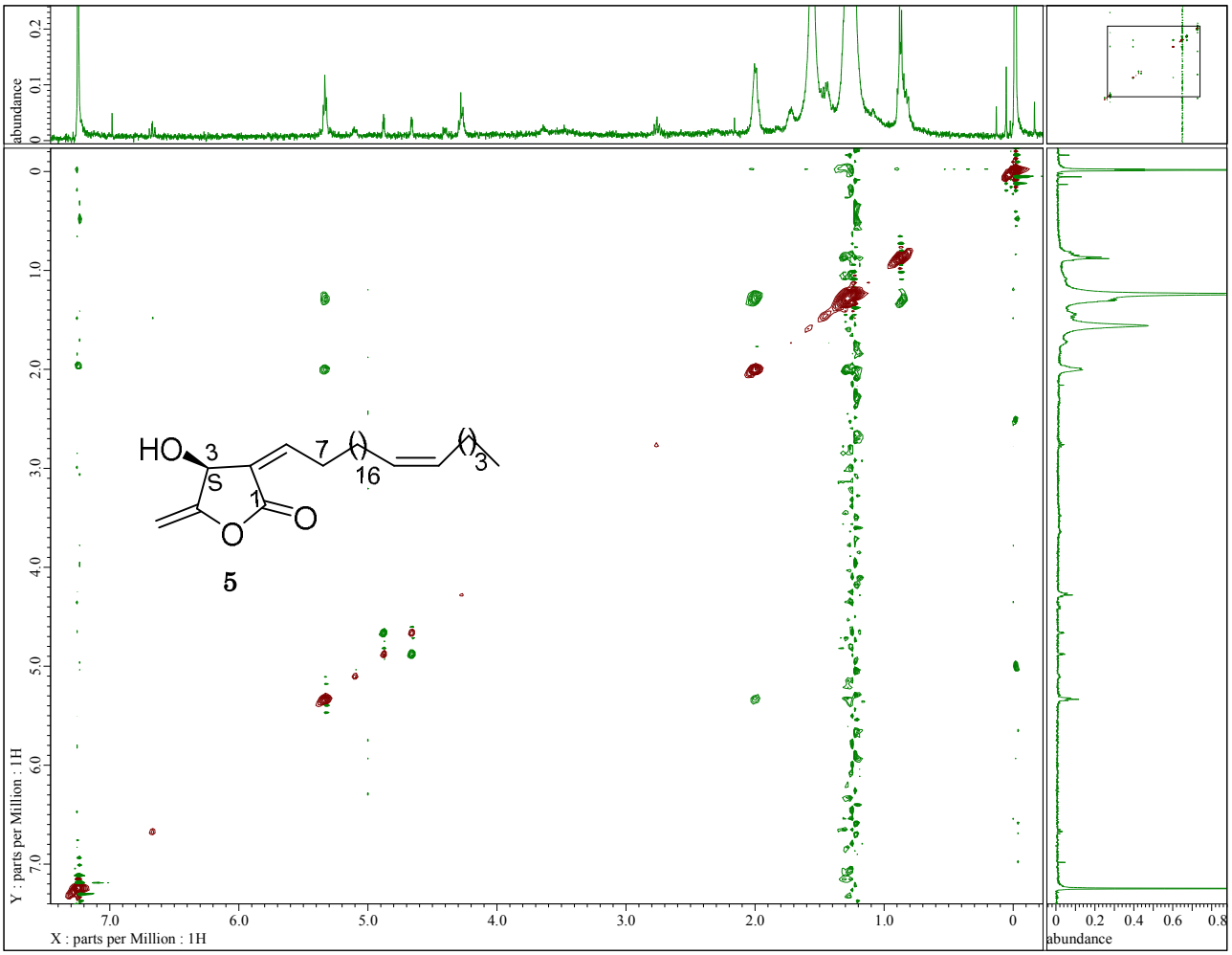

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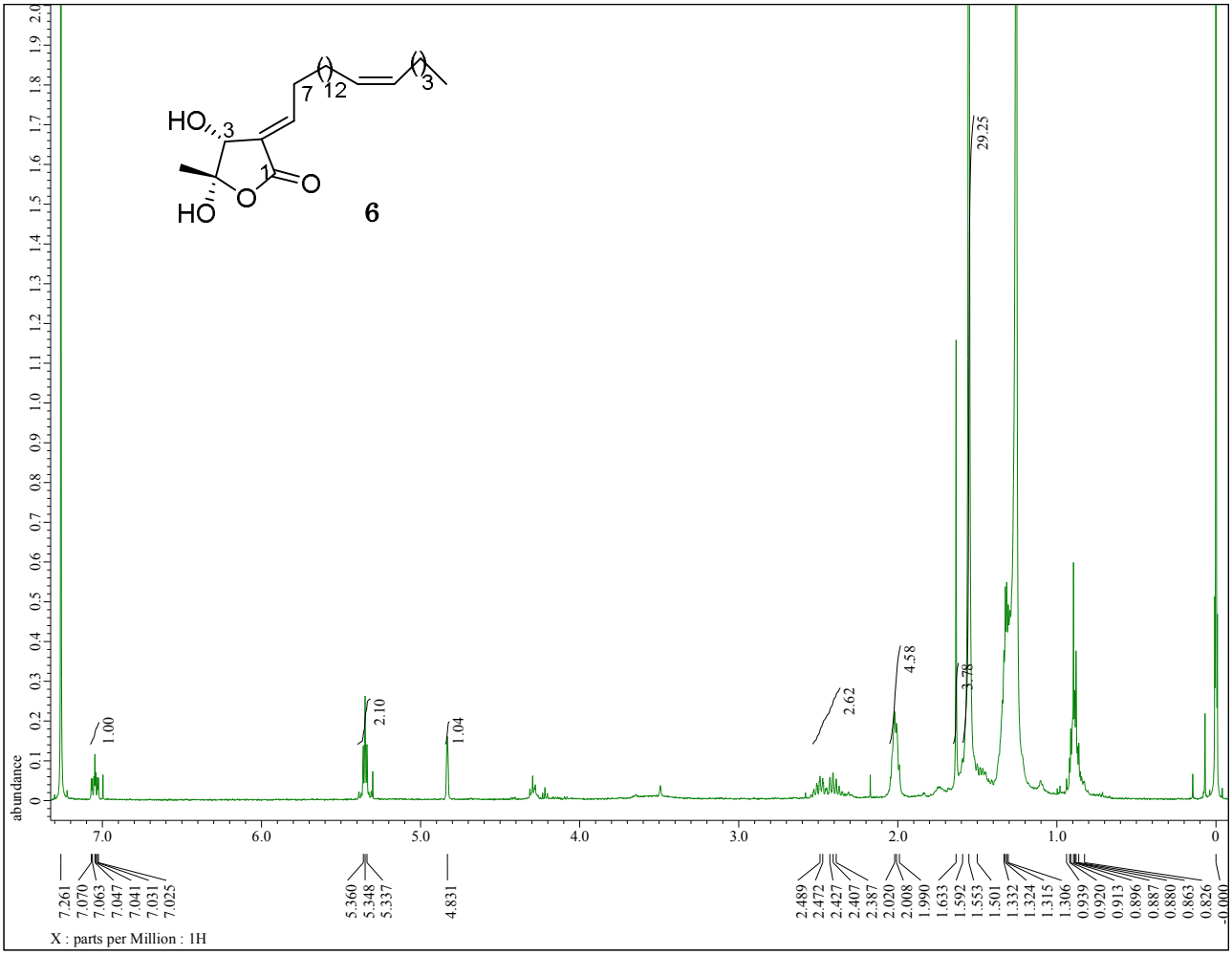

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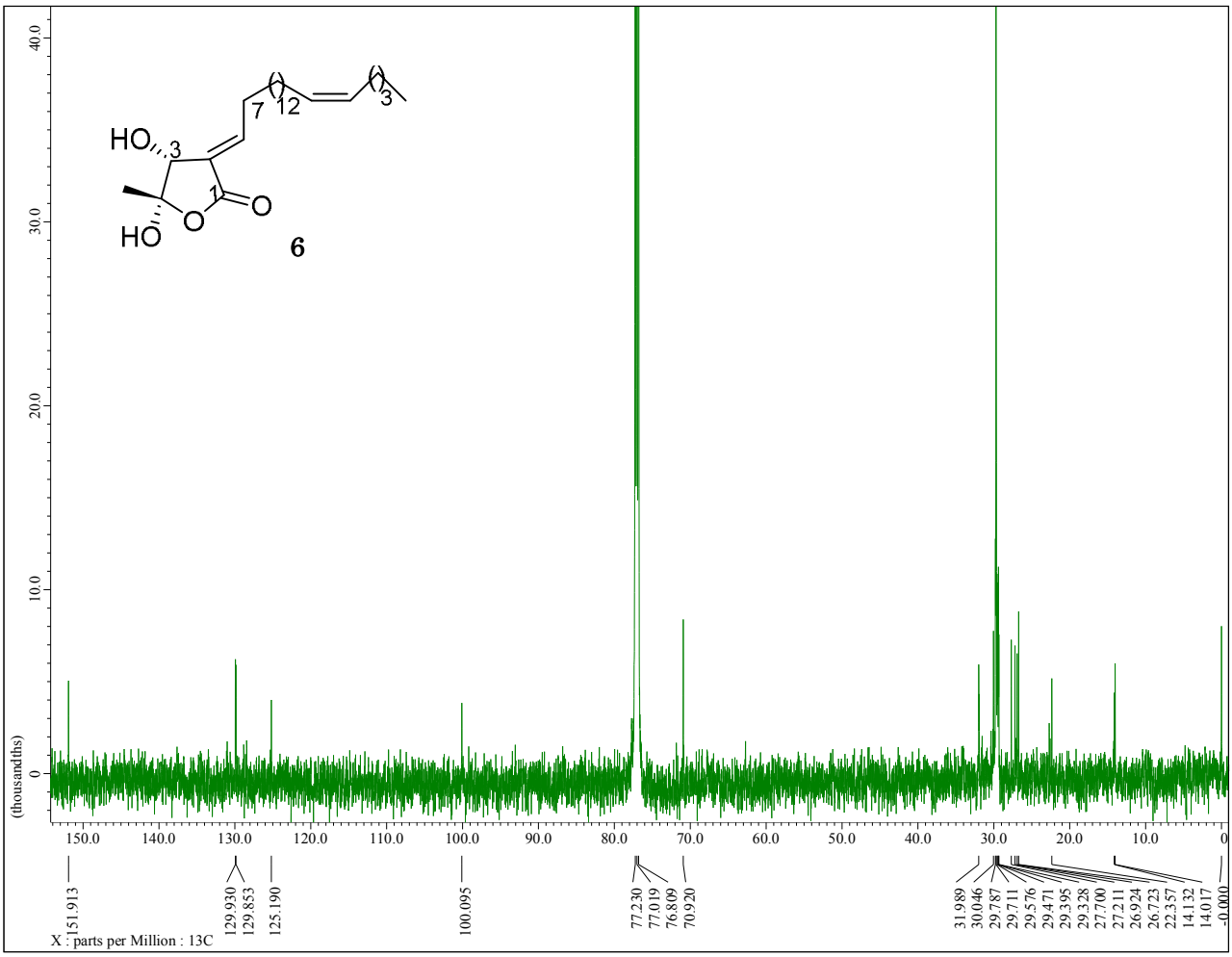

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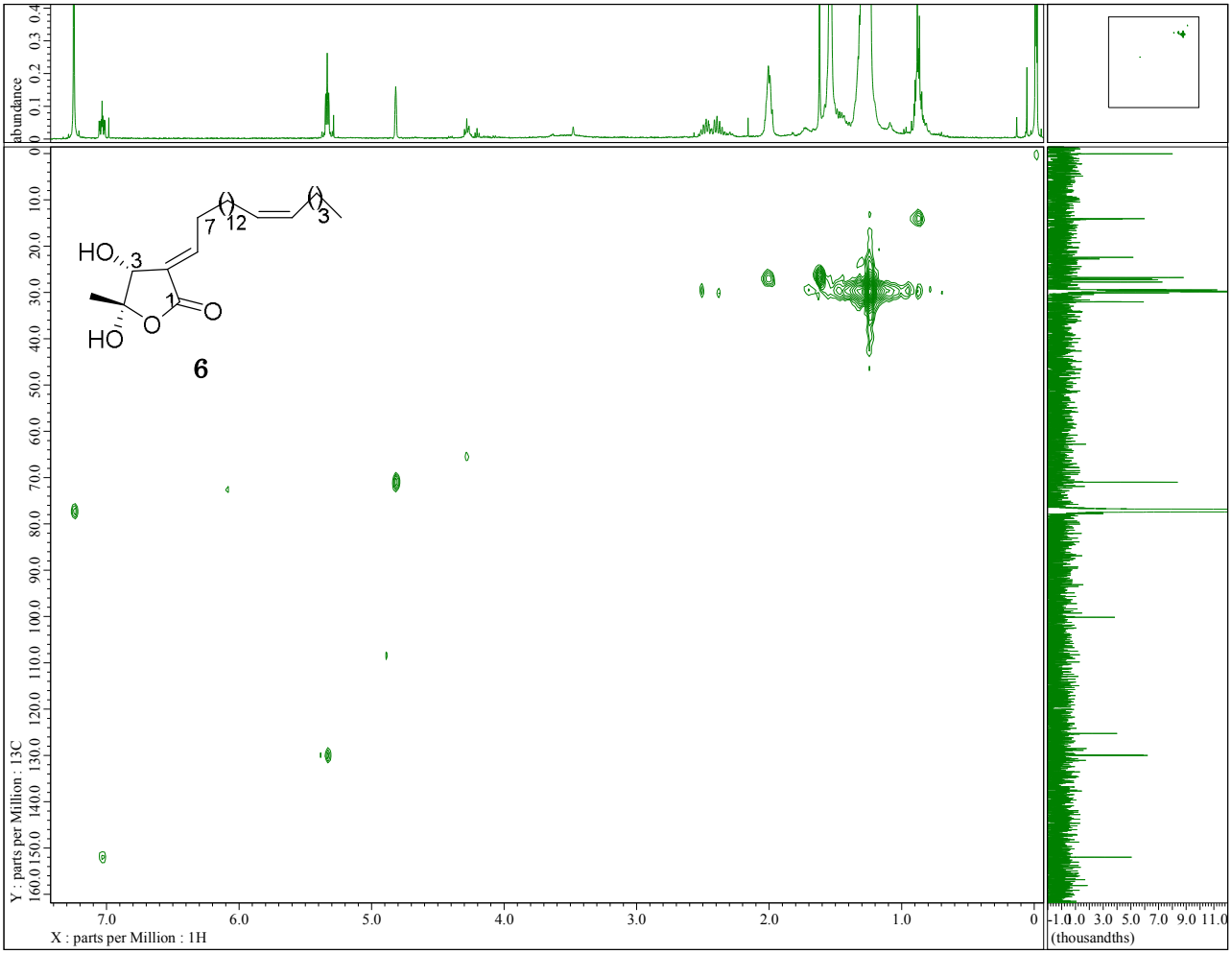

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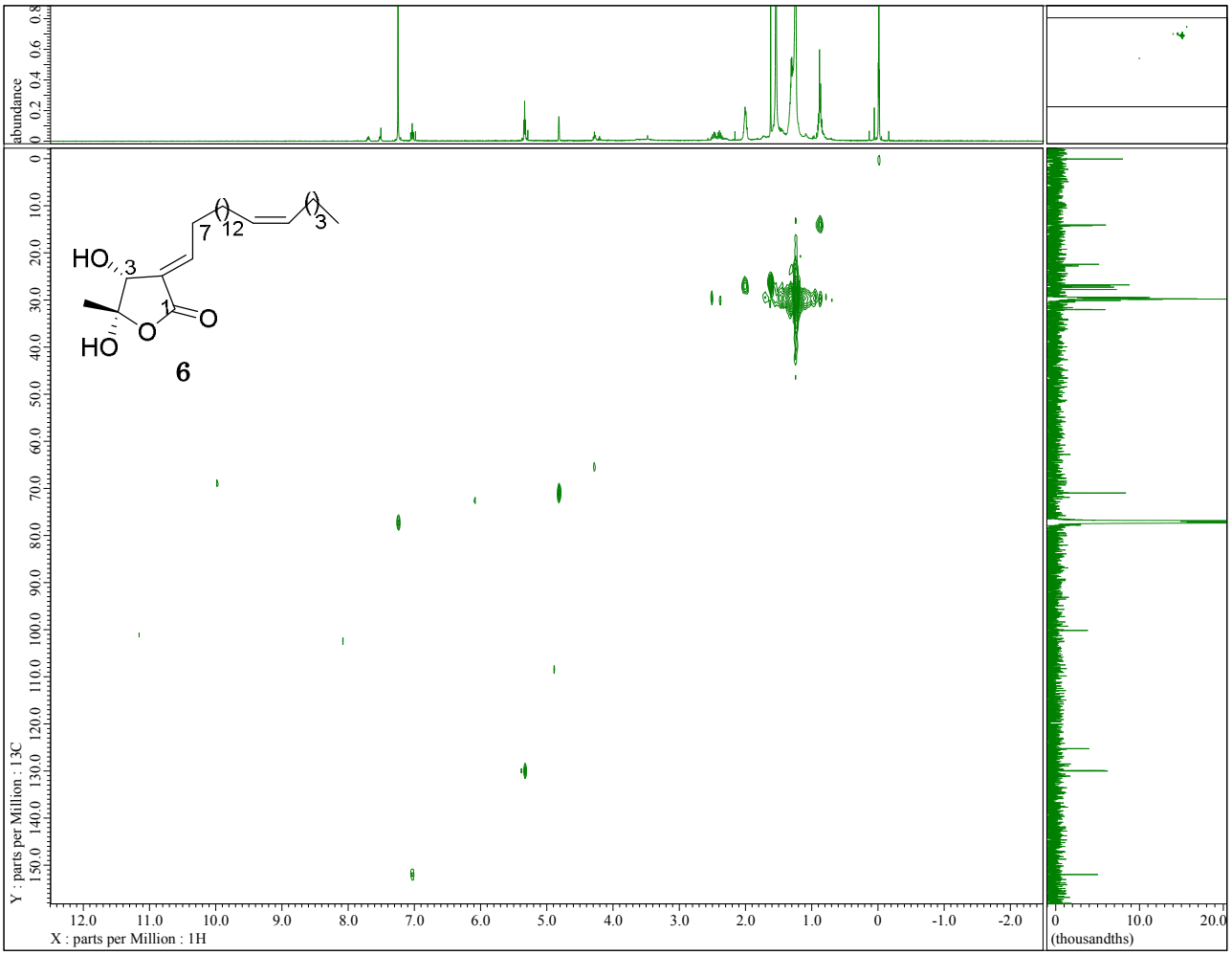

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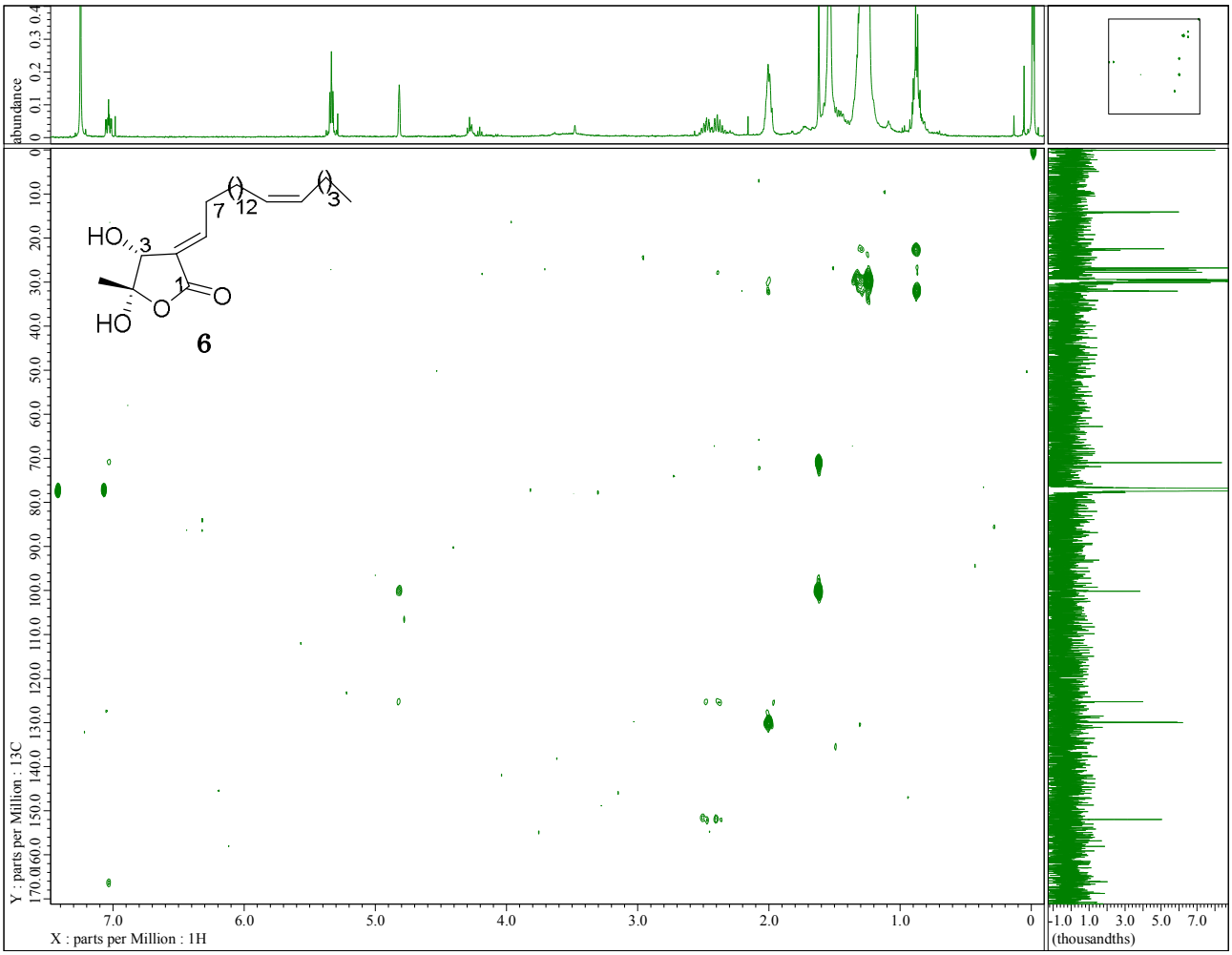

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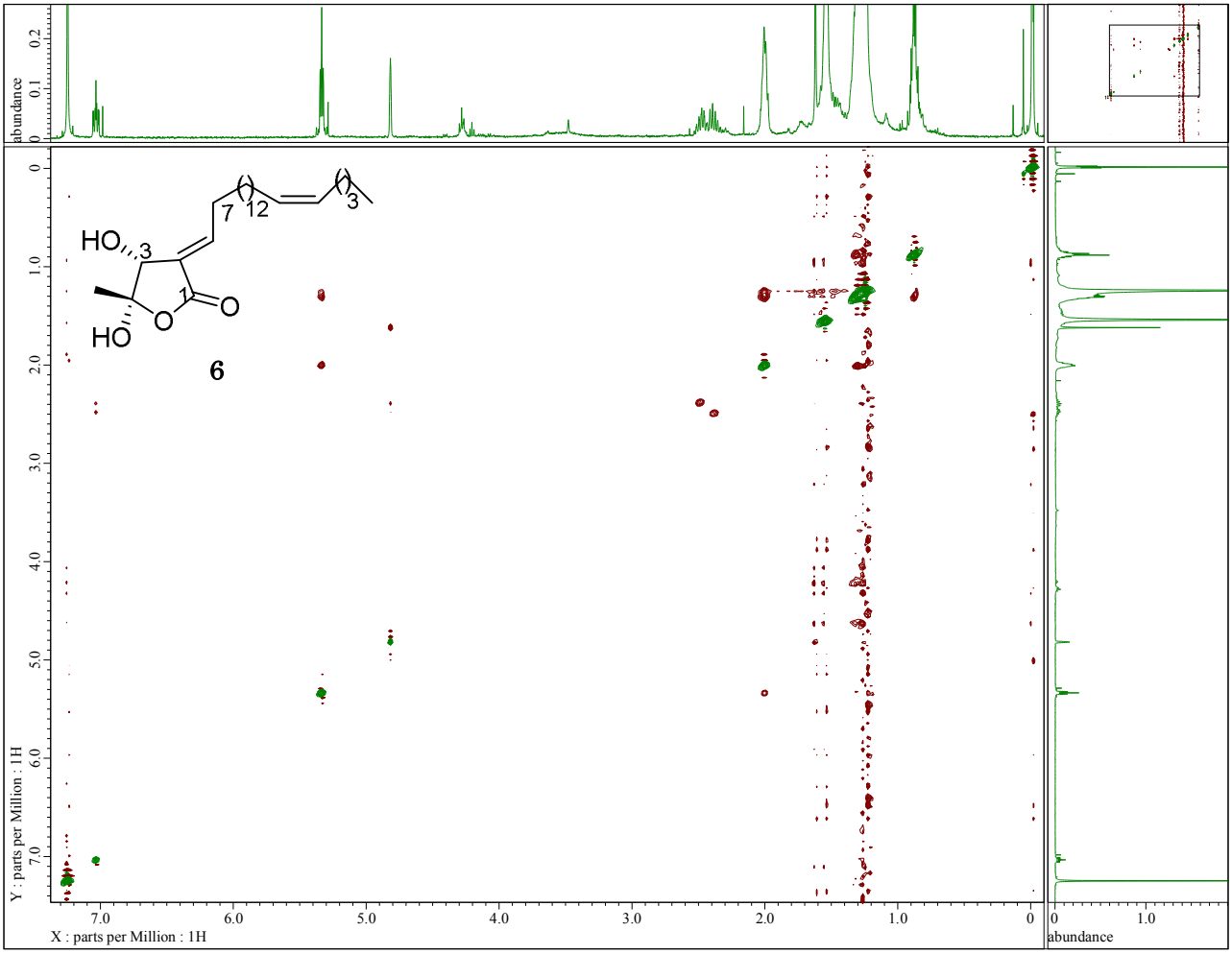

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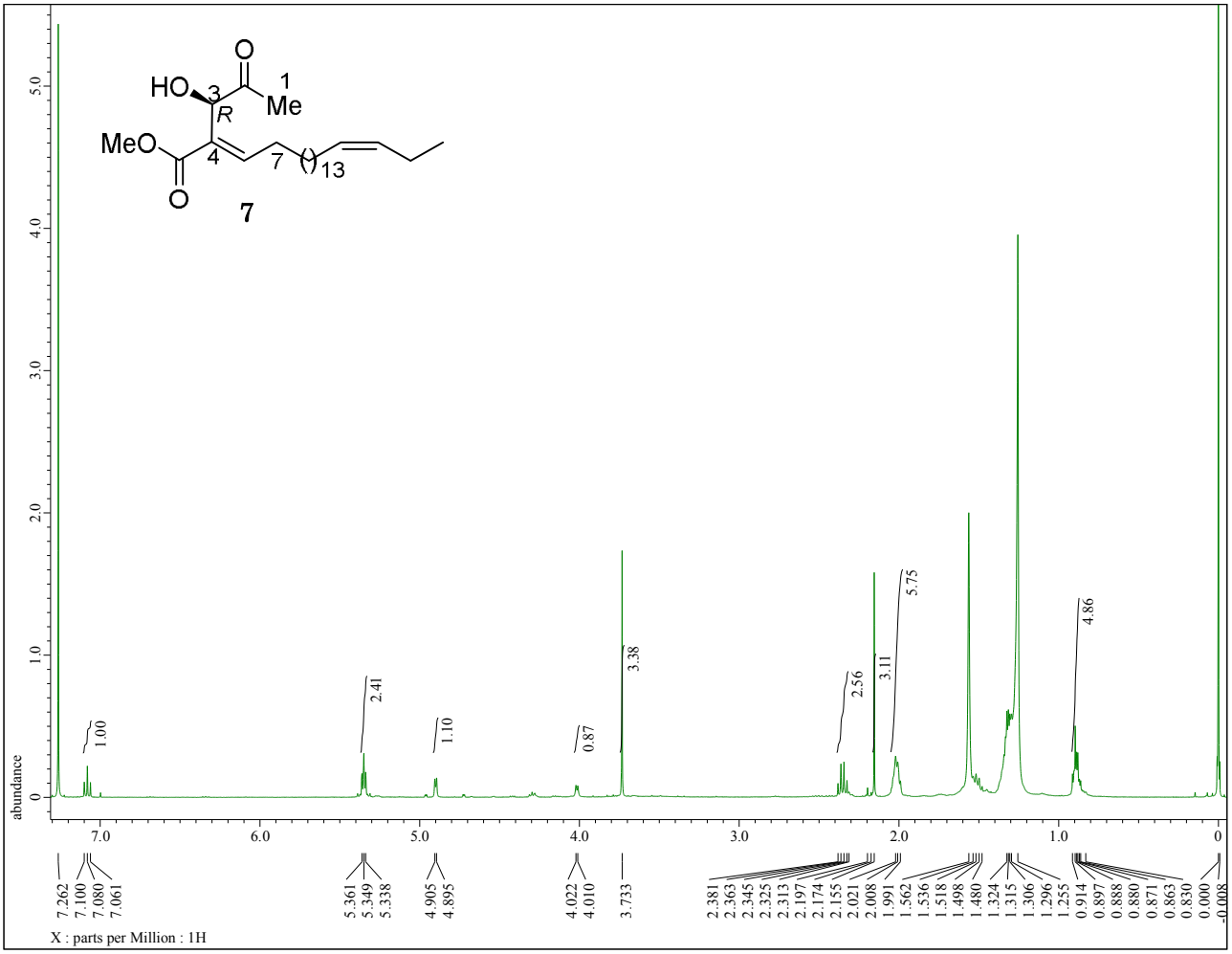

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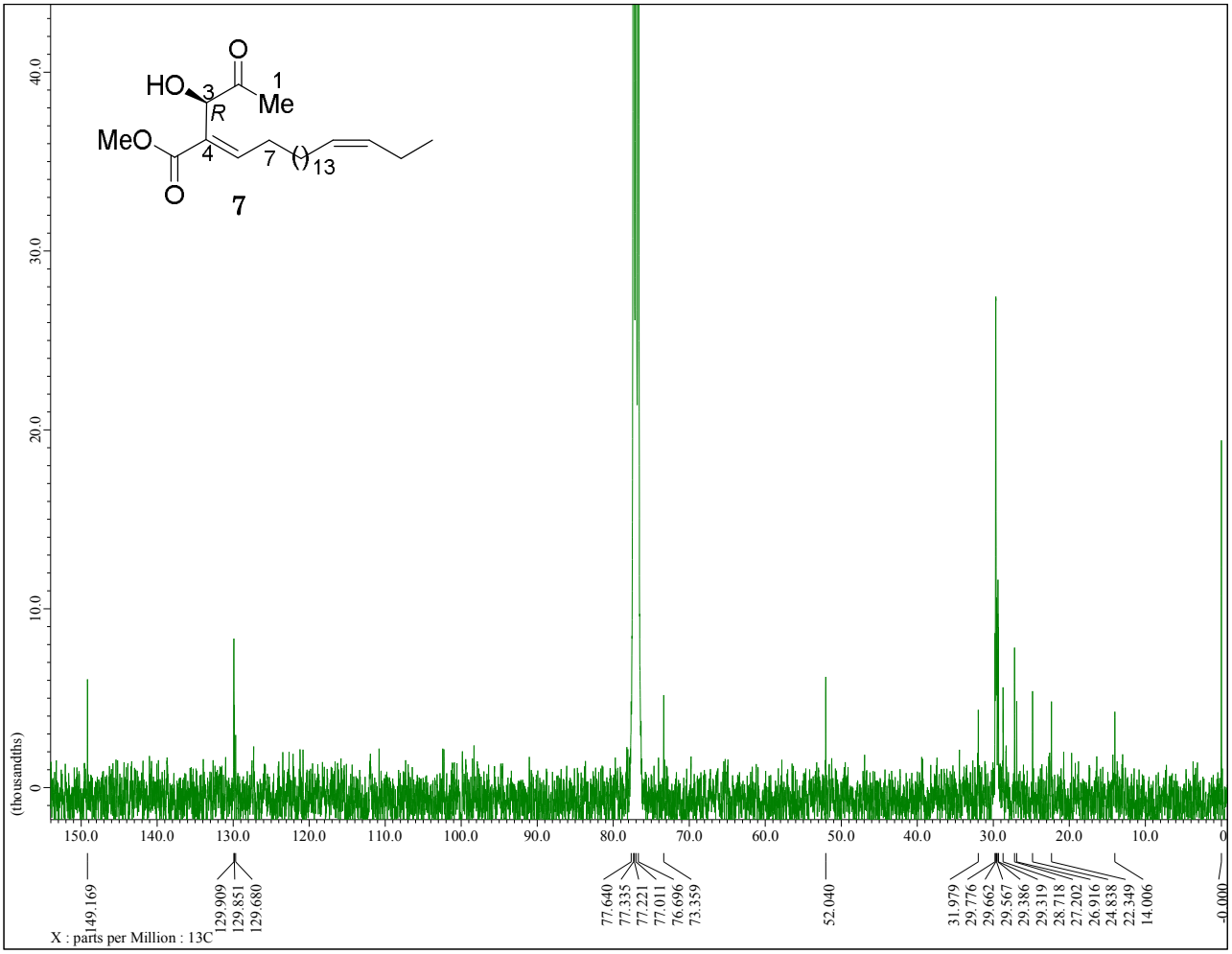

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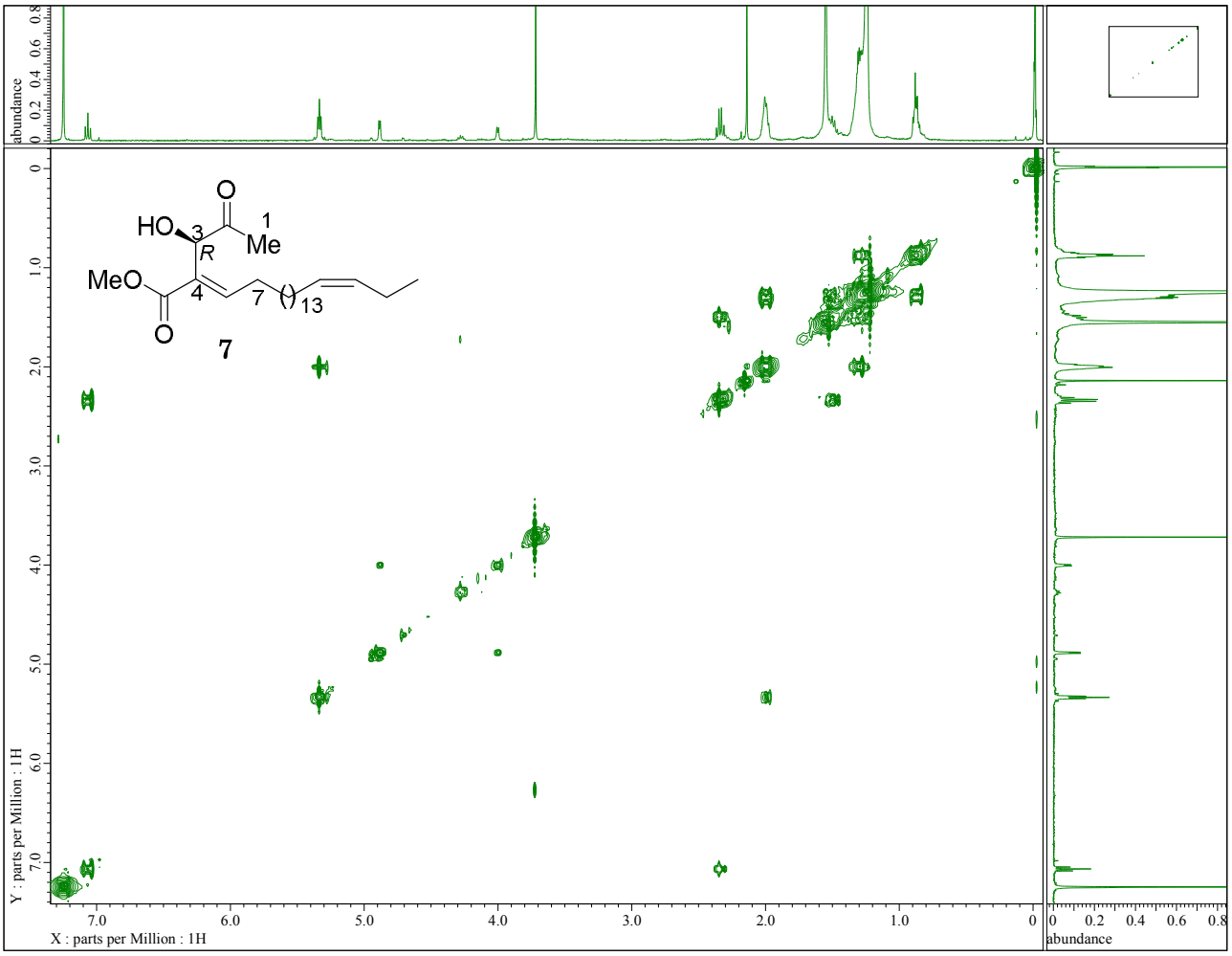

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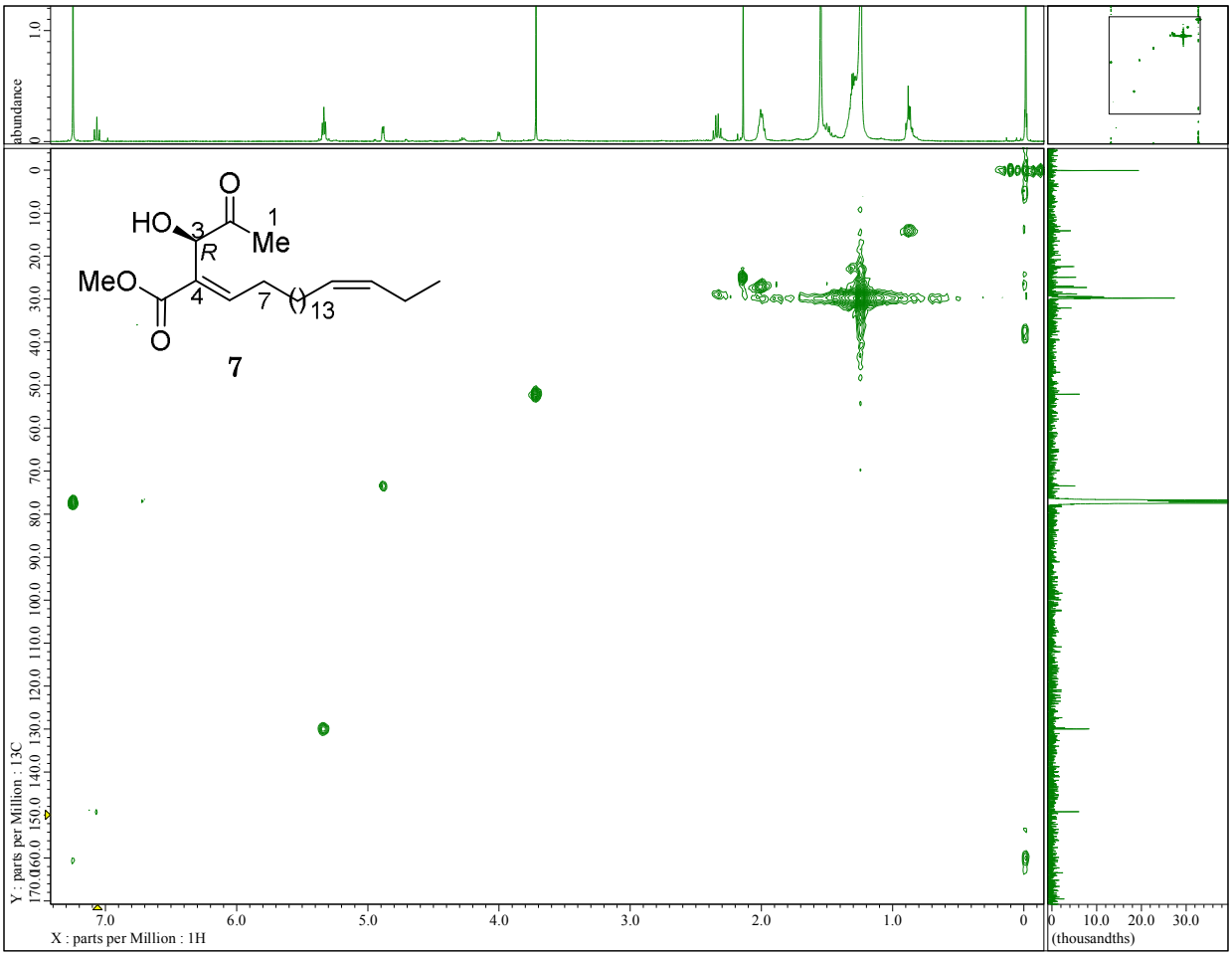

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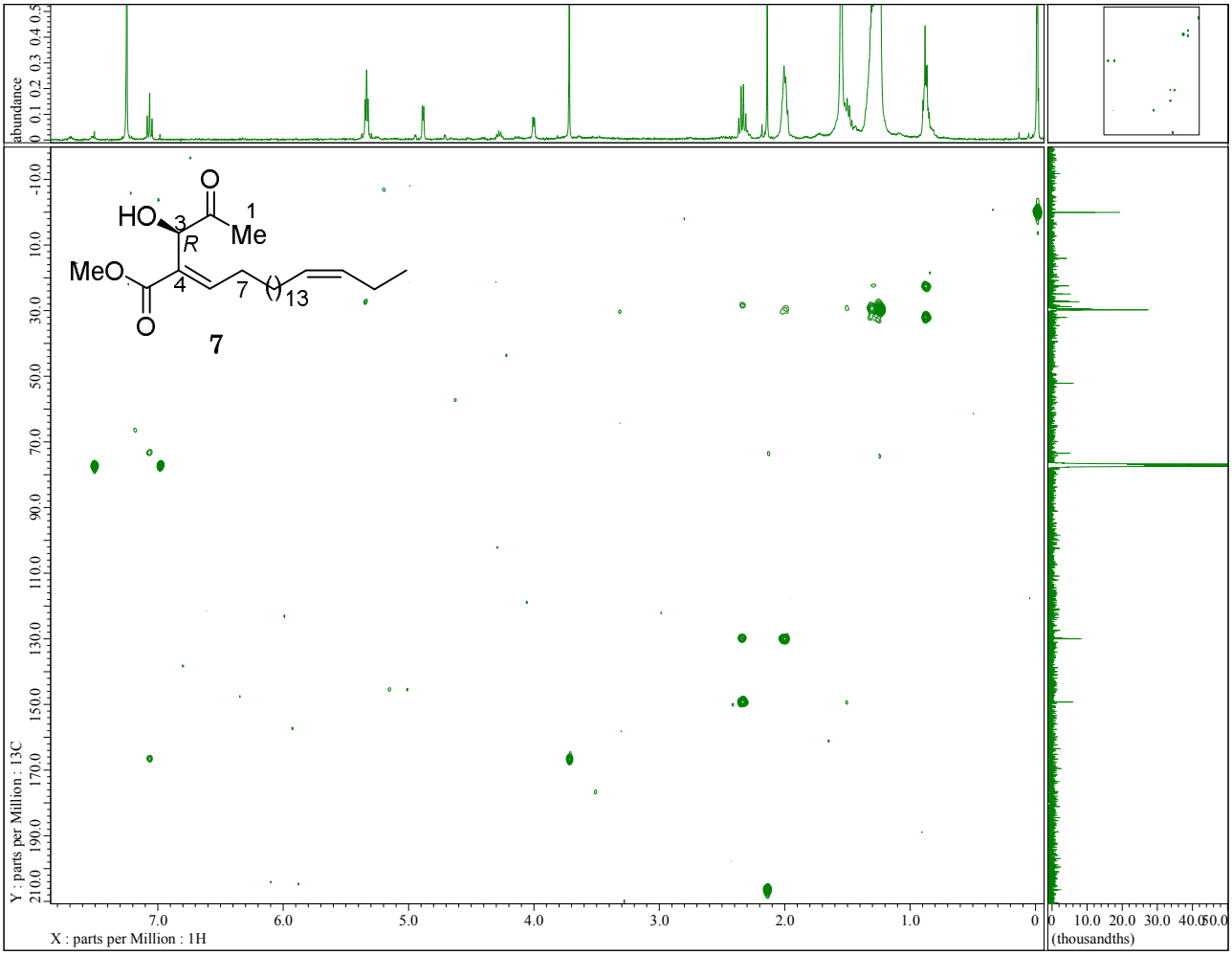

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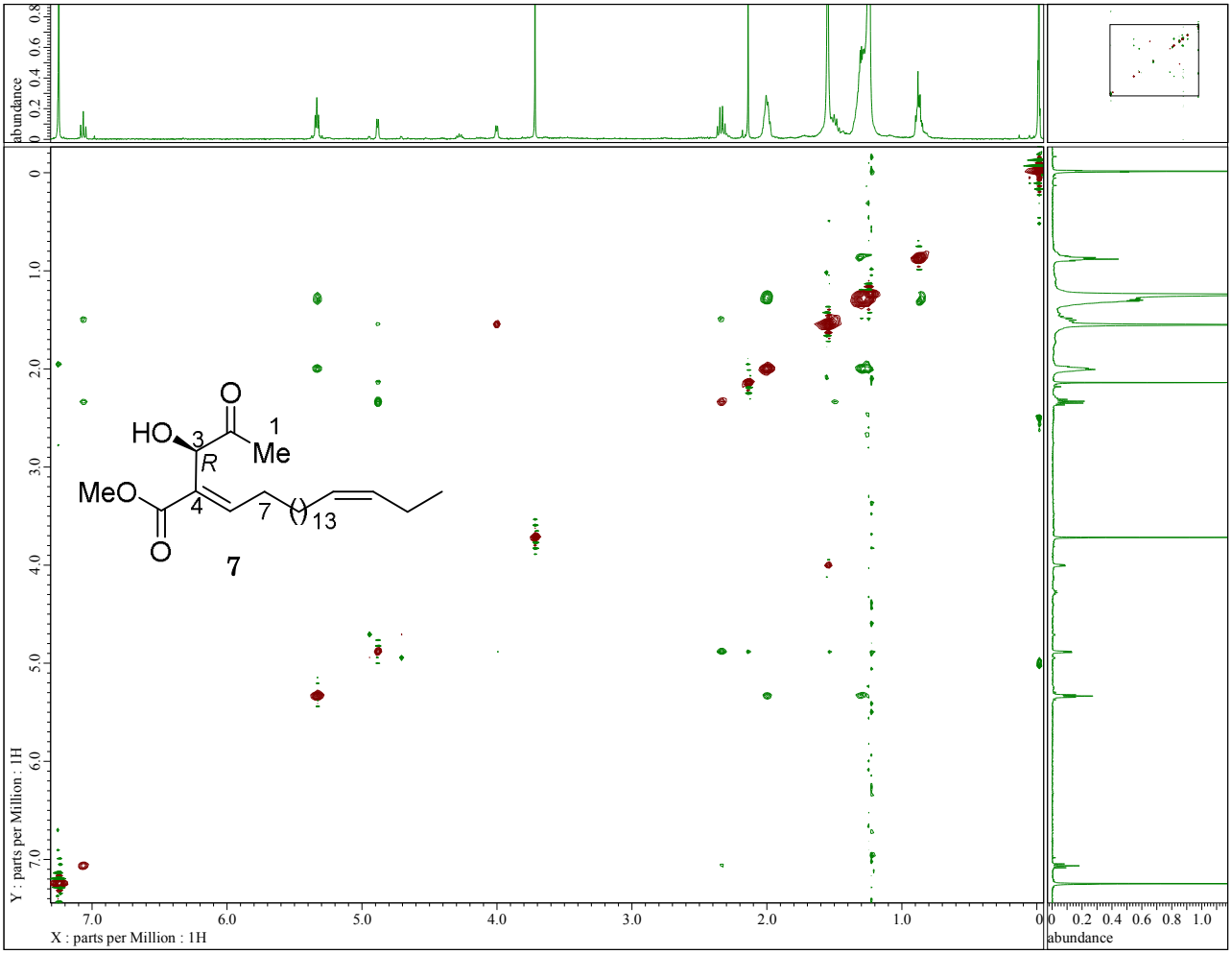

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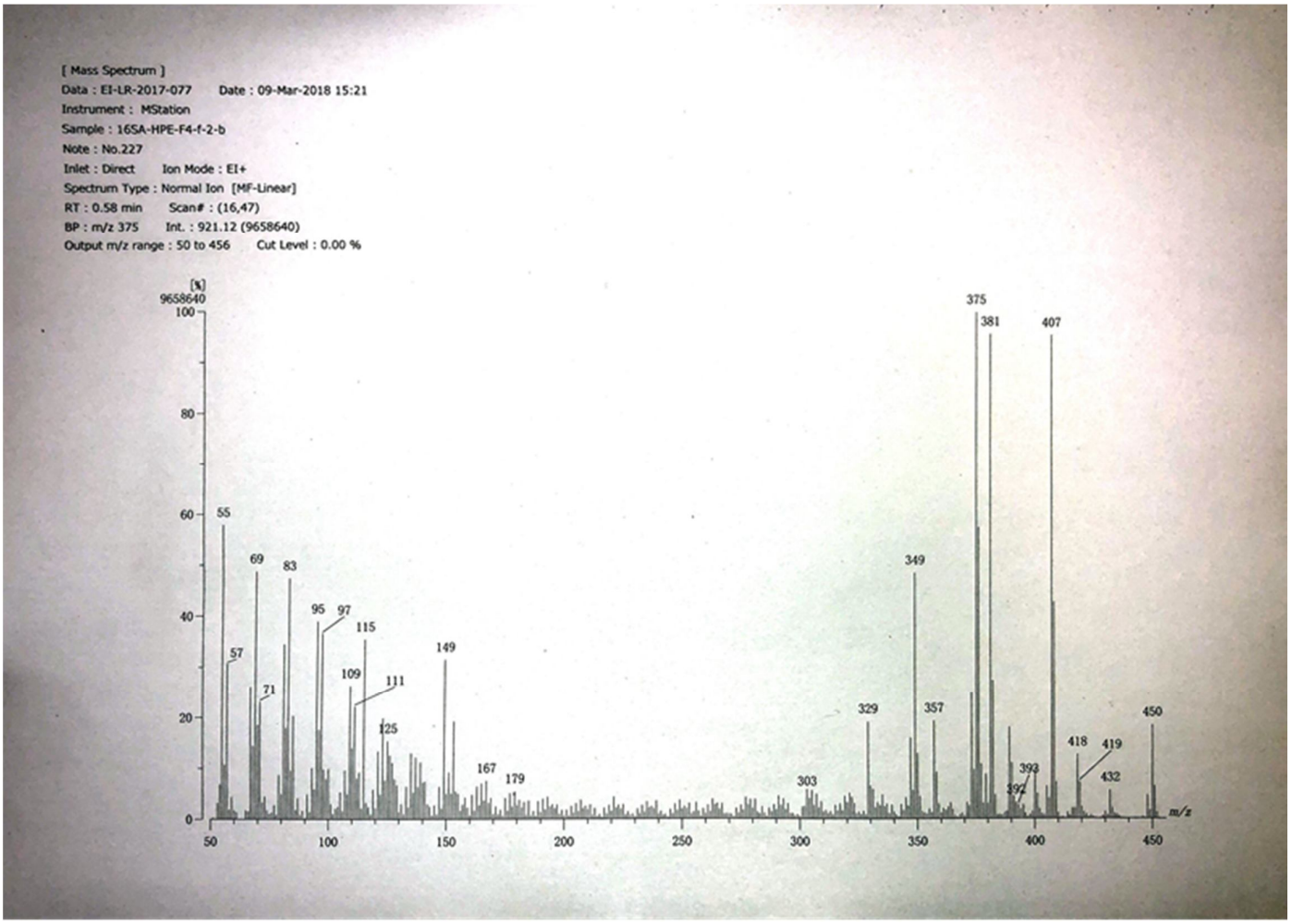

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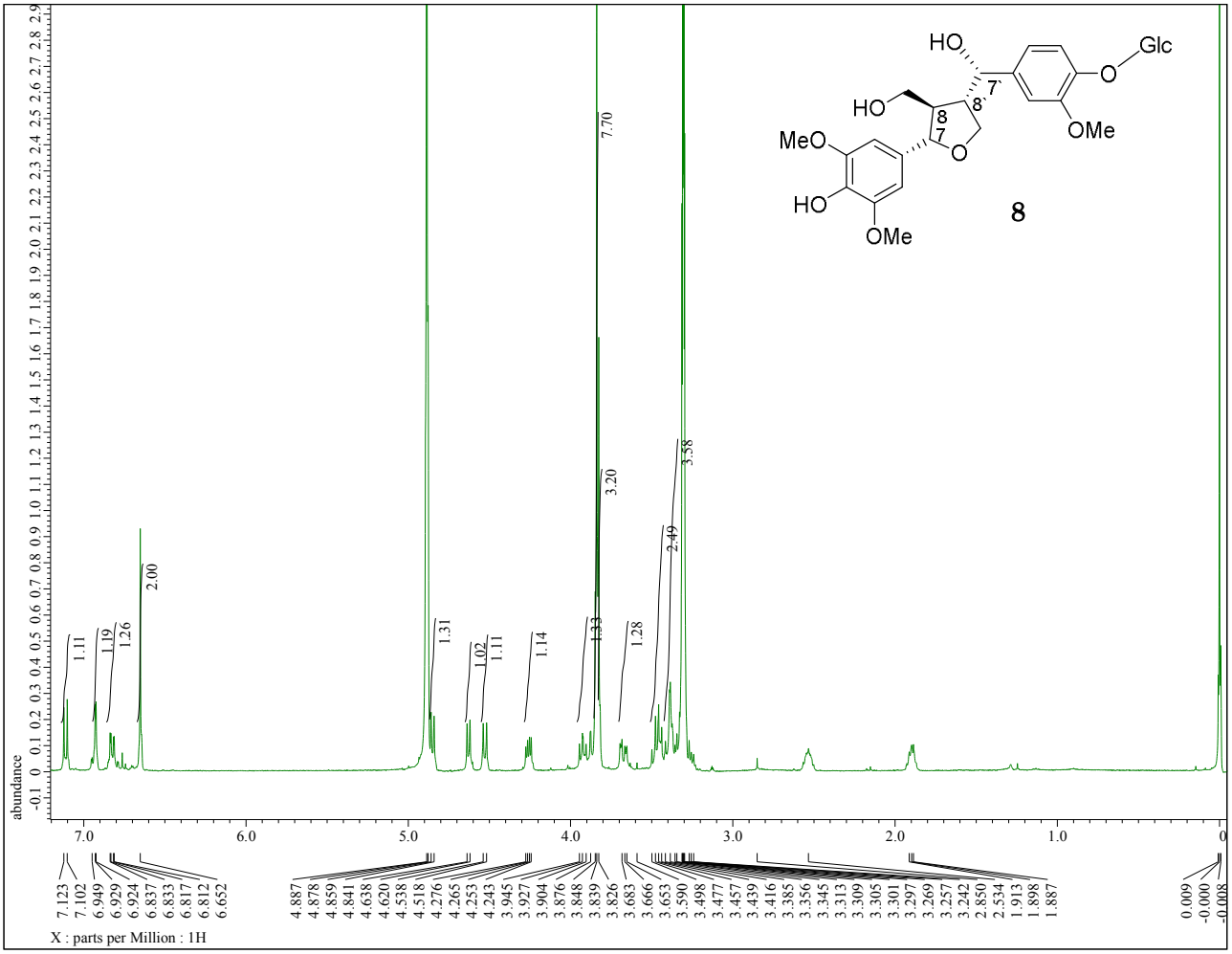

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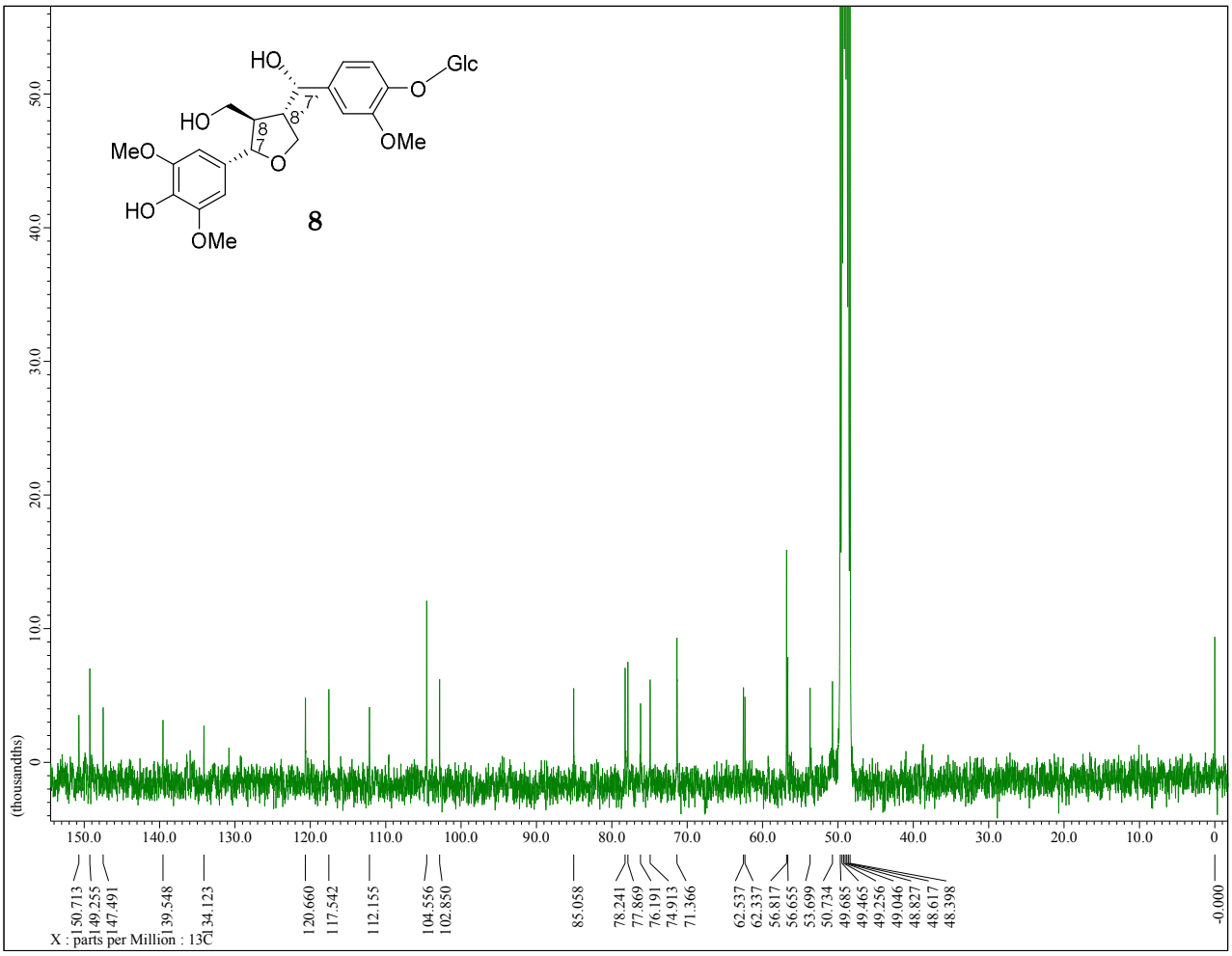

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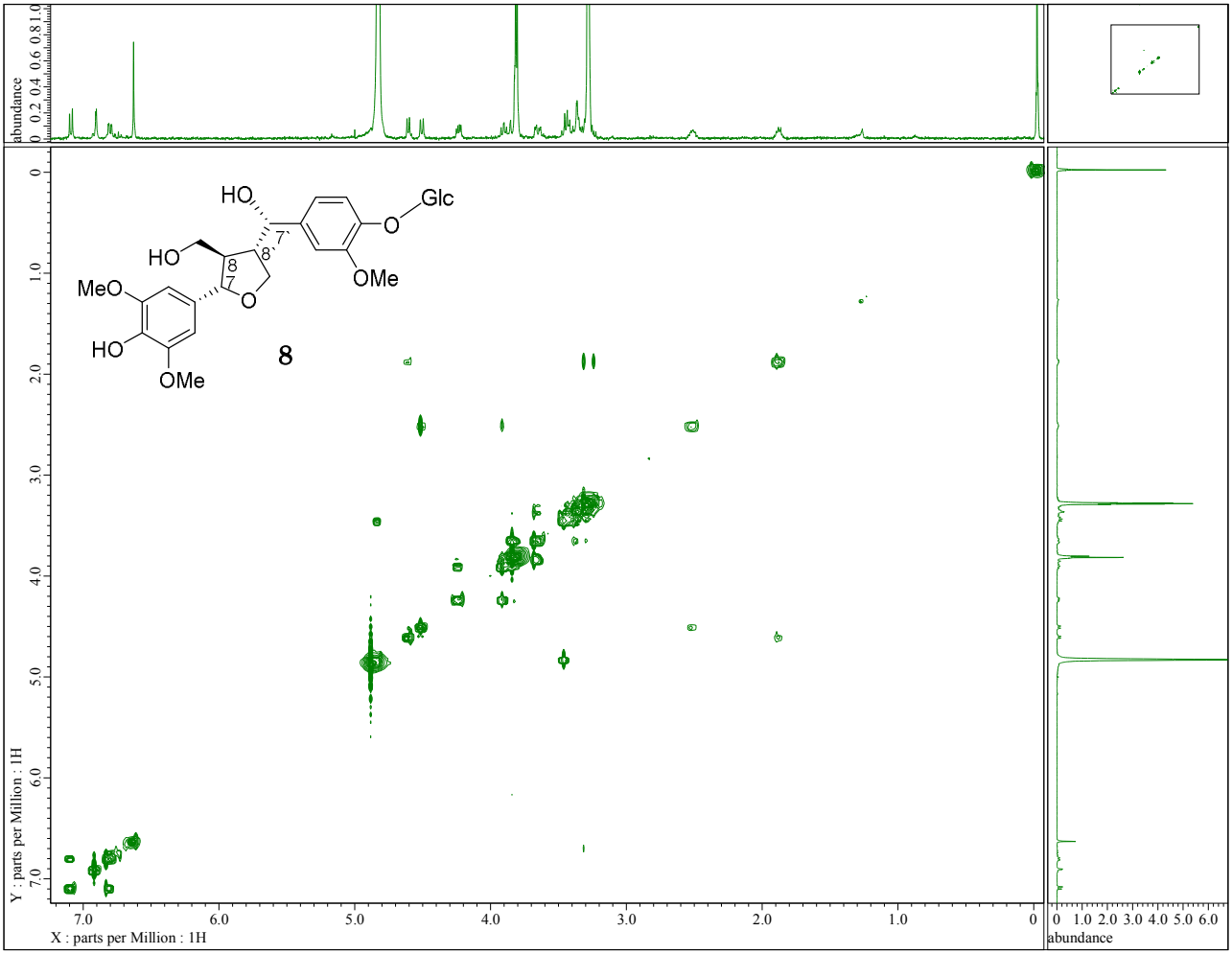

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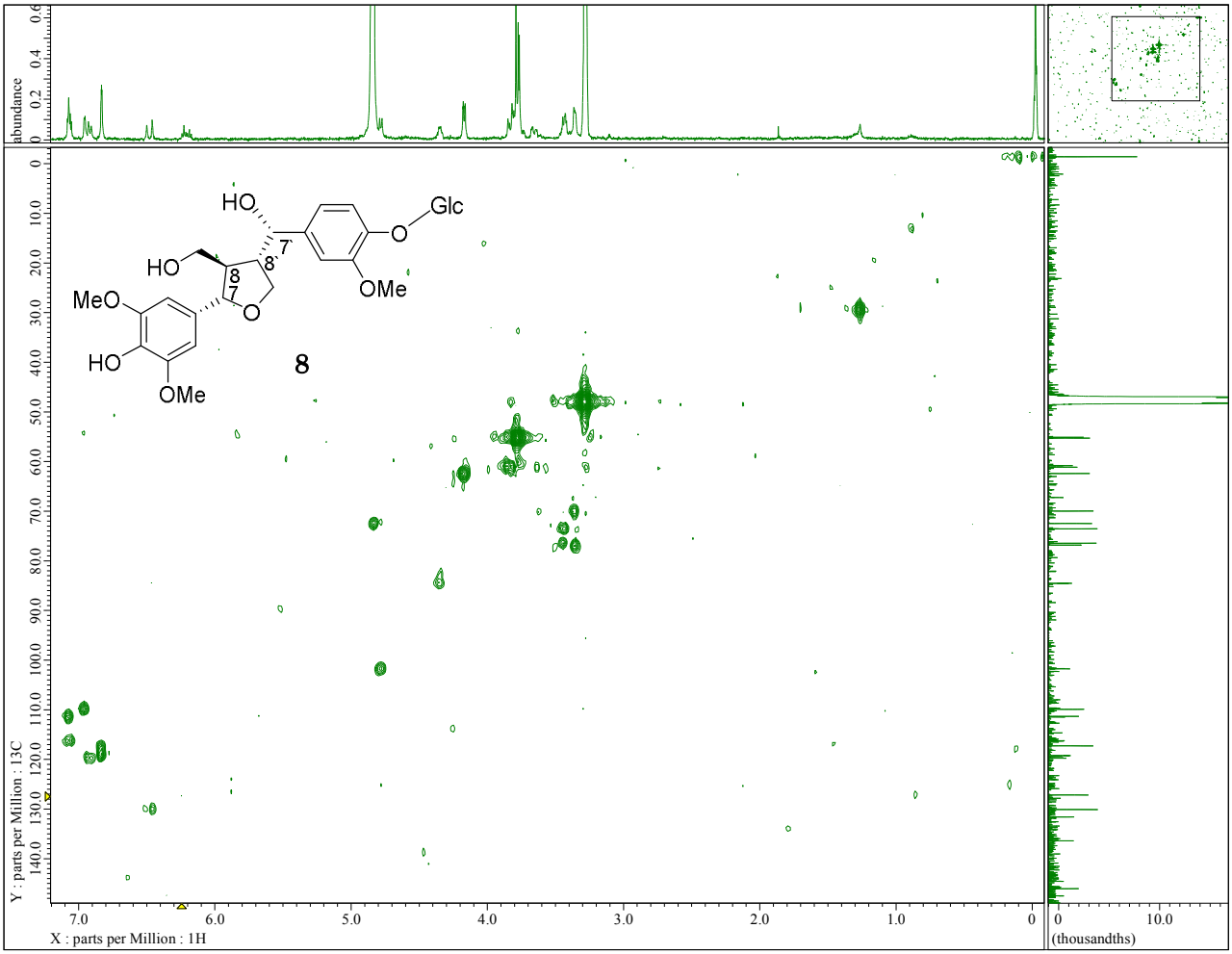

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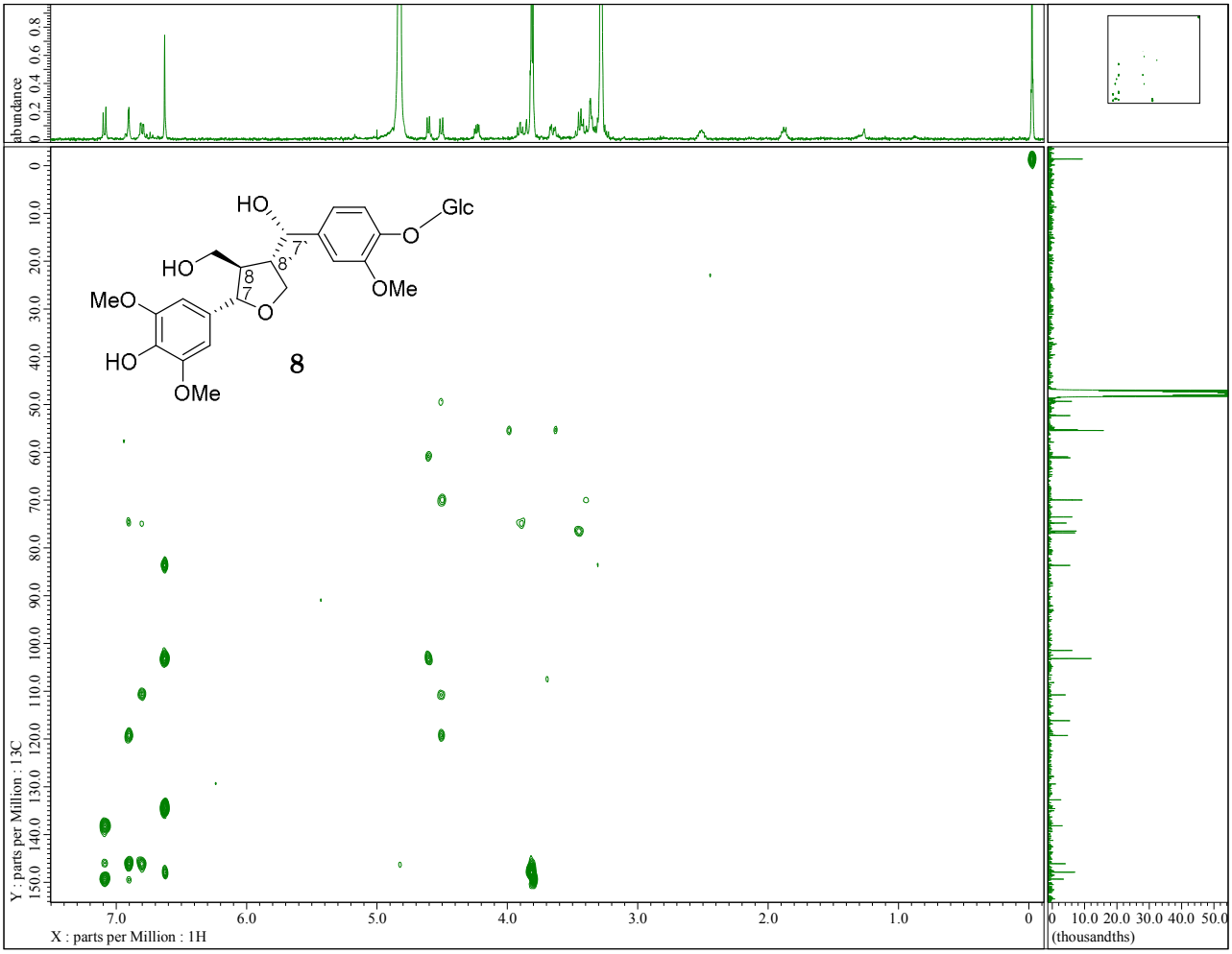

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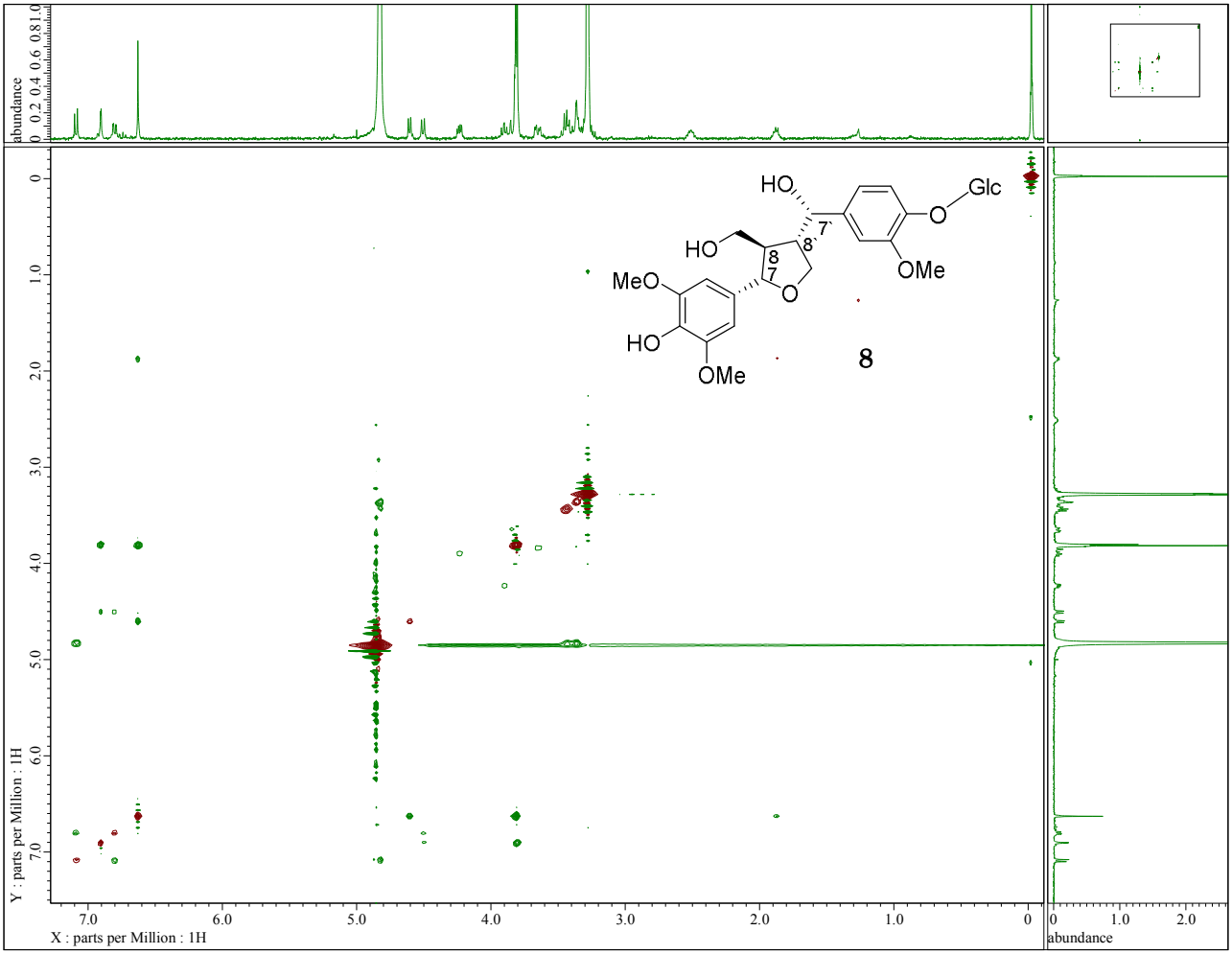

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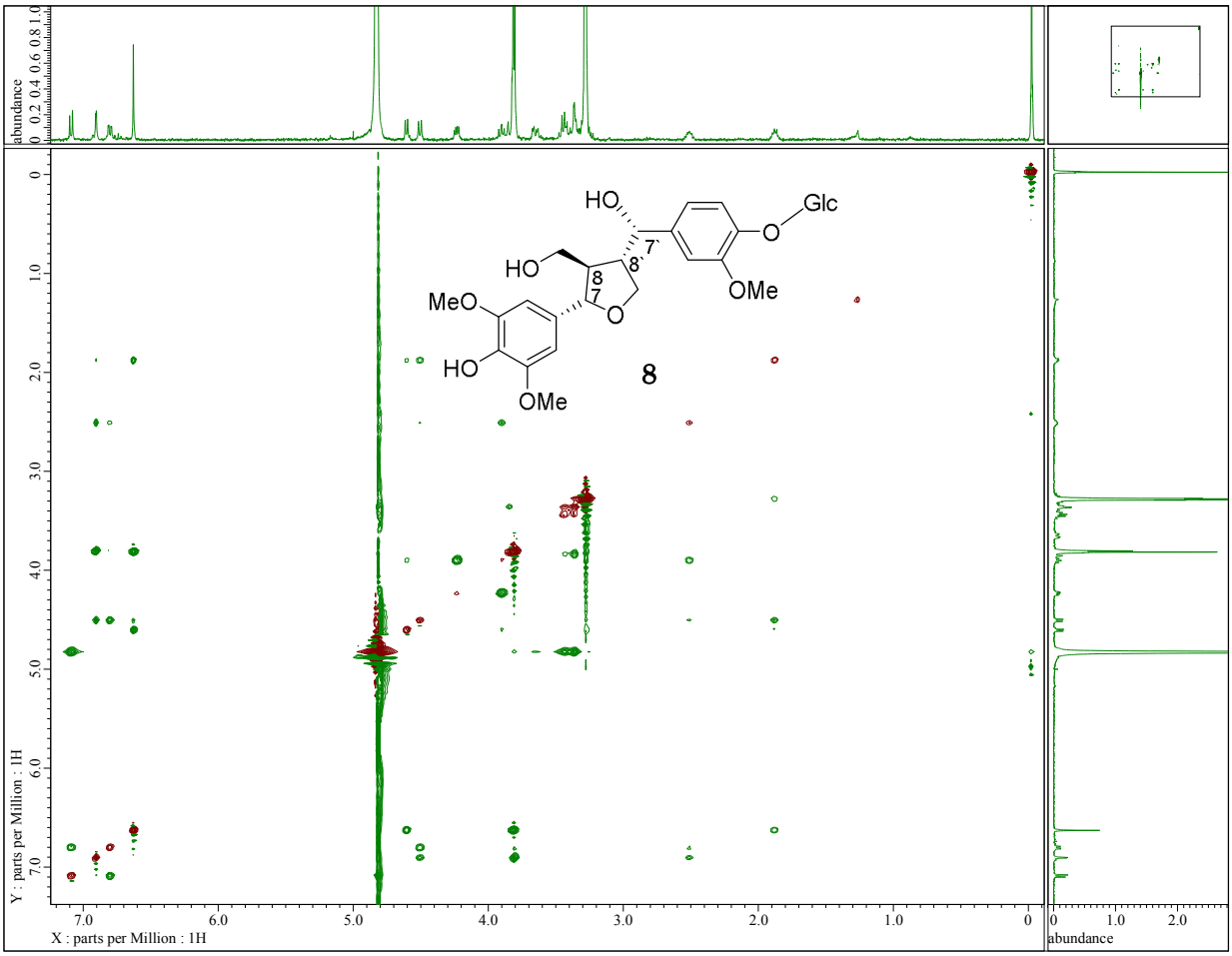


Figure S51. ^{1}H MNR spectrum of **9** (400MHz, in CD_3OD)

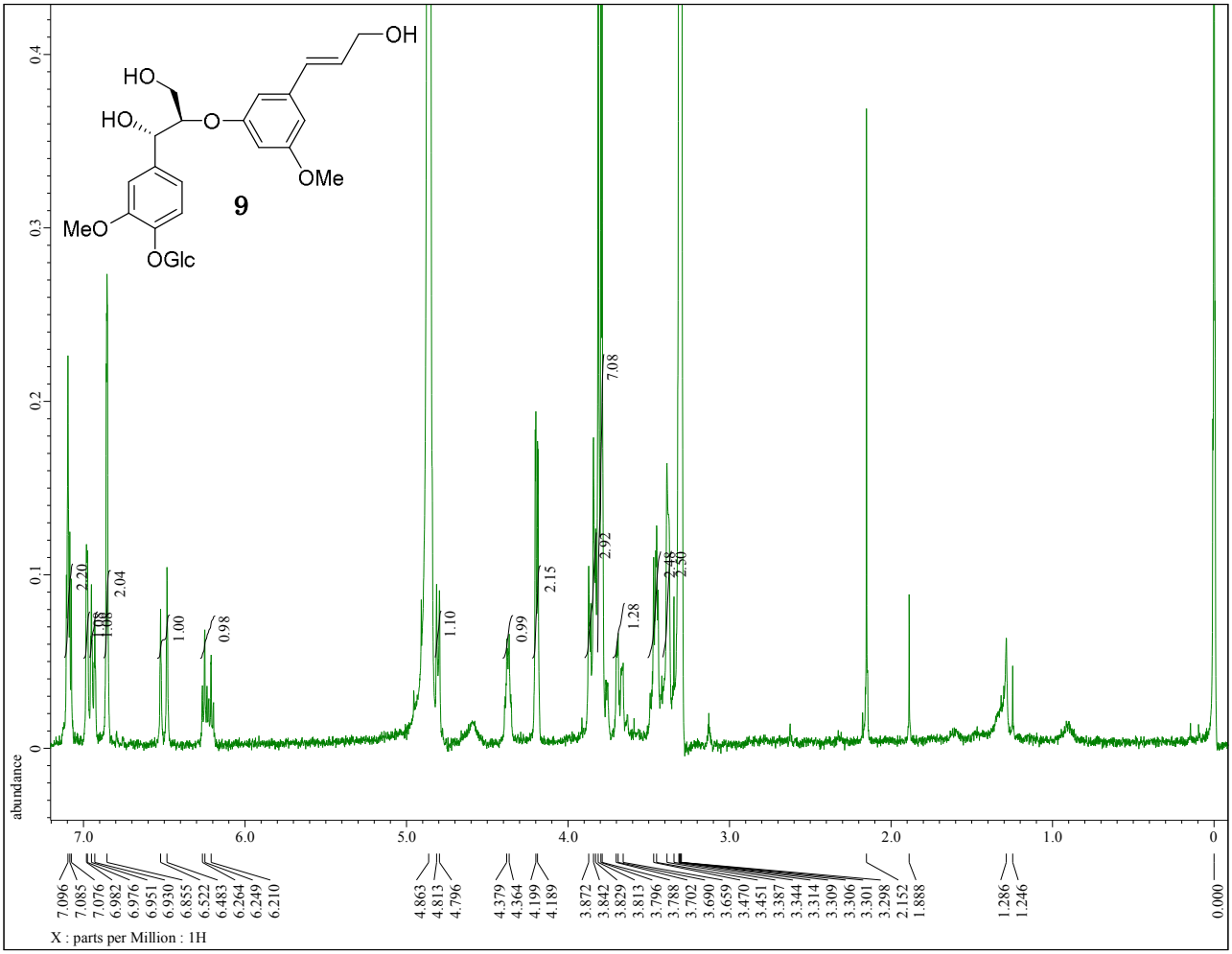


Figure S52. ^{13}C MNR spectrum of **9** (100MHz, in CD_3OD)

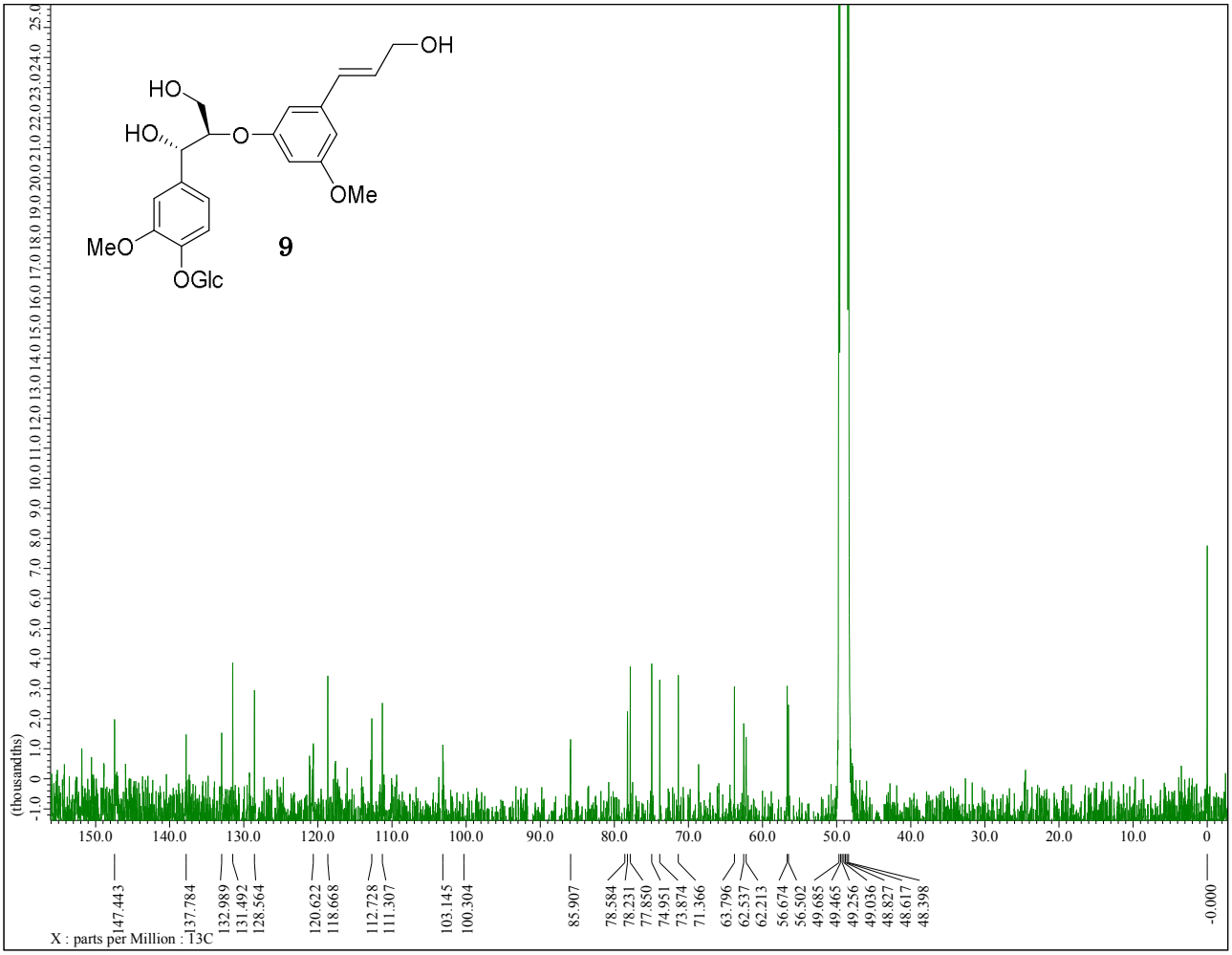


Figure S53. H-H COSY experiment of **9** (400MHz, in CD_3OD)

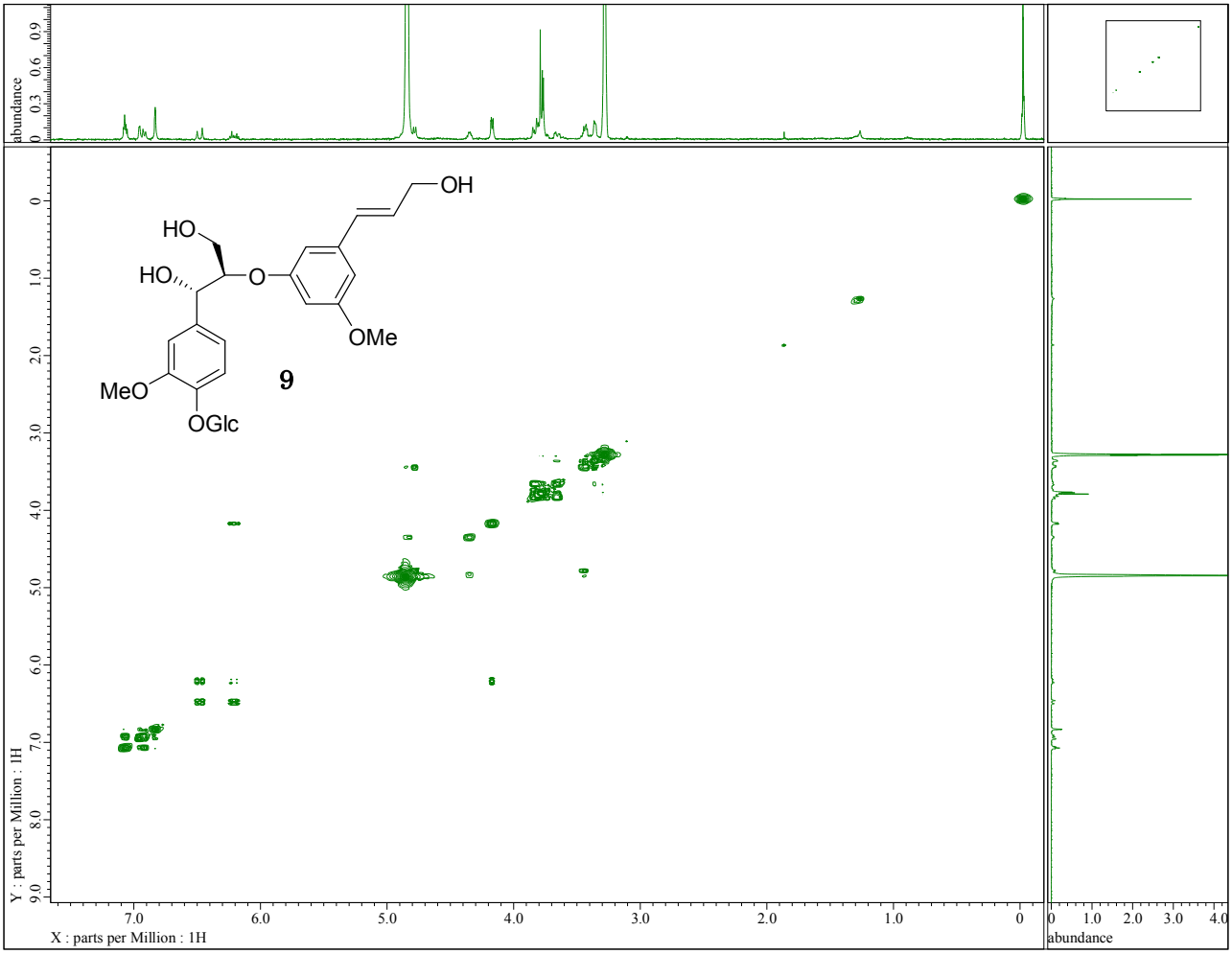


Figure S54. HMQC experiment of **9** (400MHz, in CD_3OD).

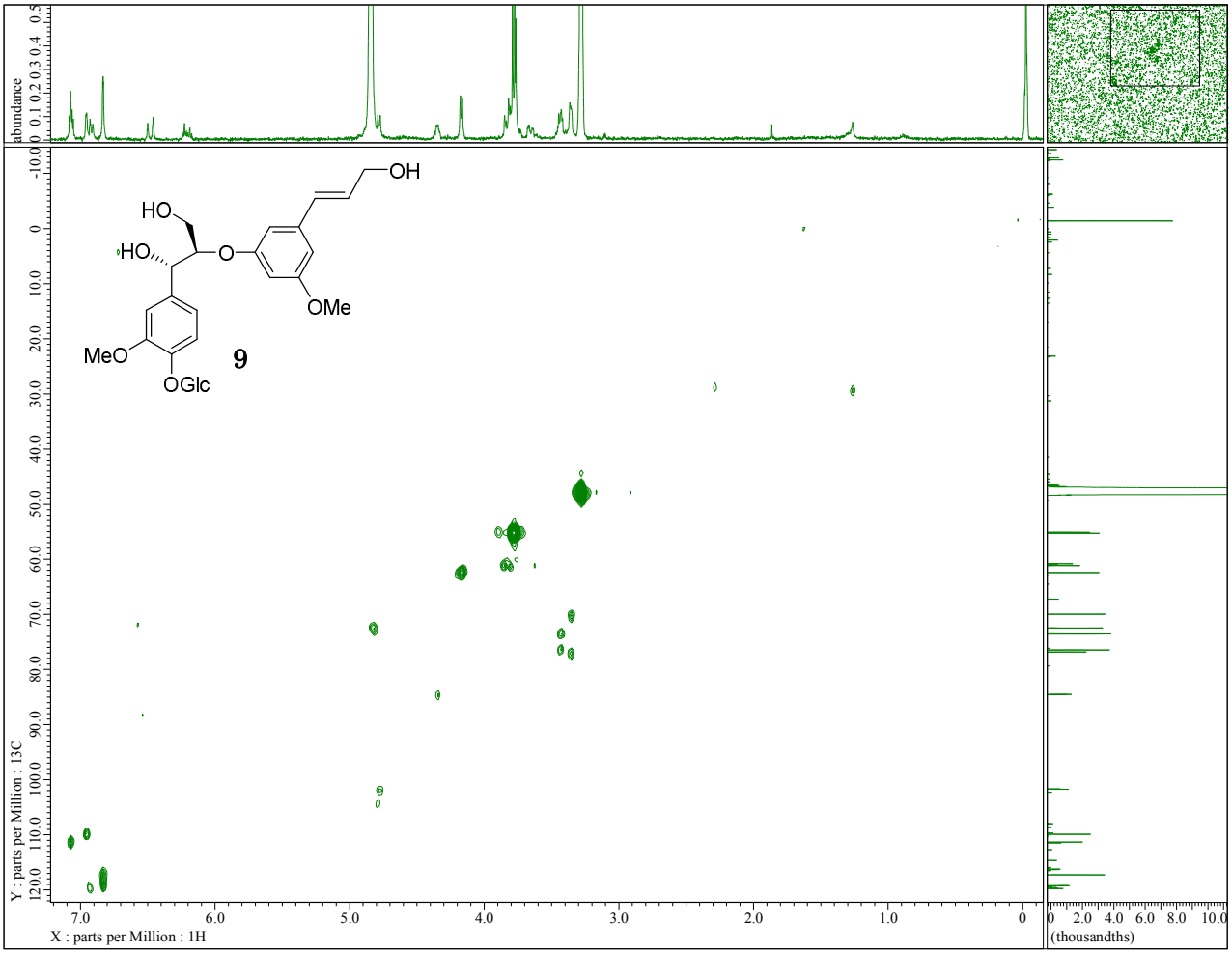


Figure S55. HMBC experiment of **9** (400MHz, in CD_3OD).

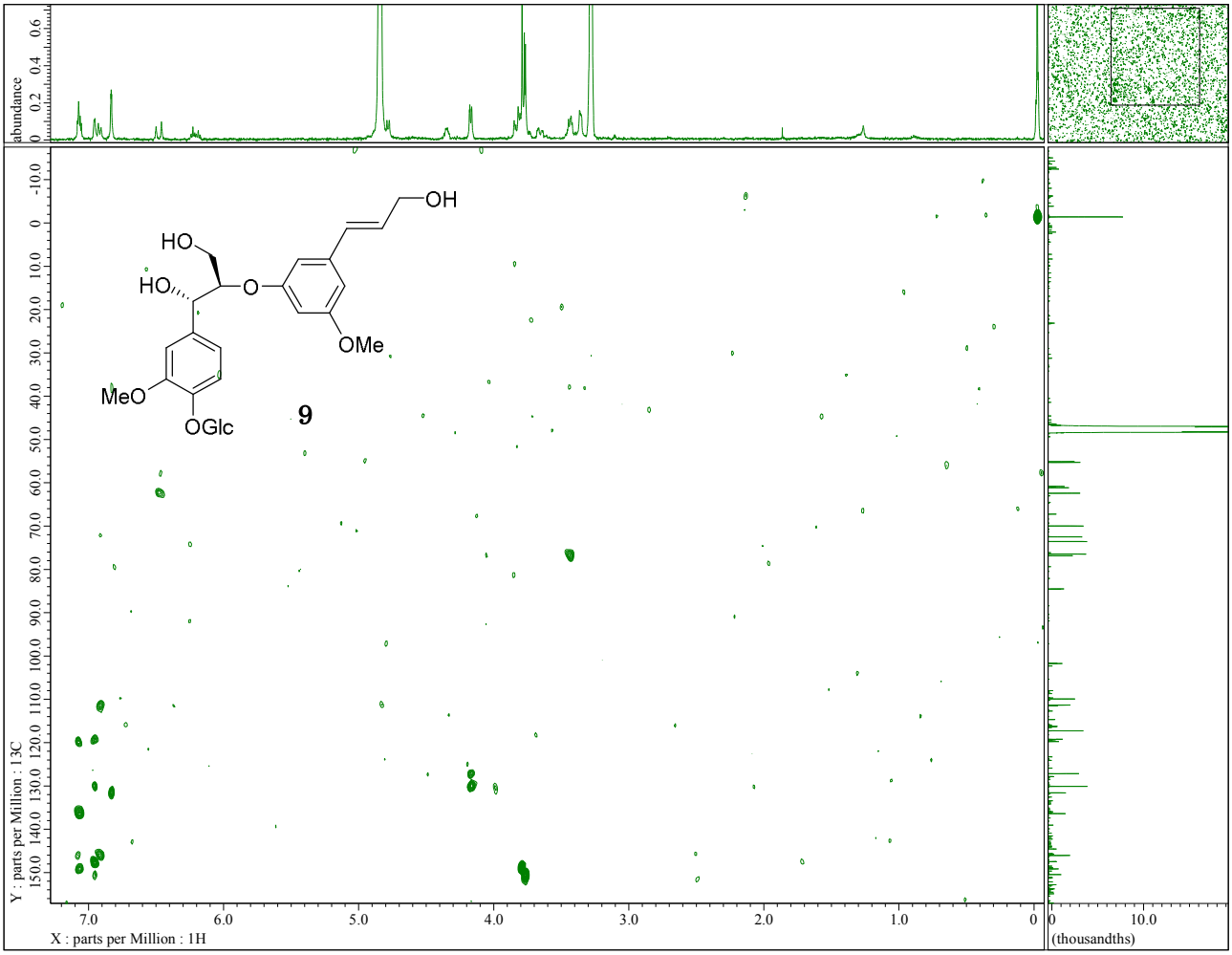


Figure S56. NOESY experiment of **9** (400MHz, in CD_3OD).

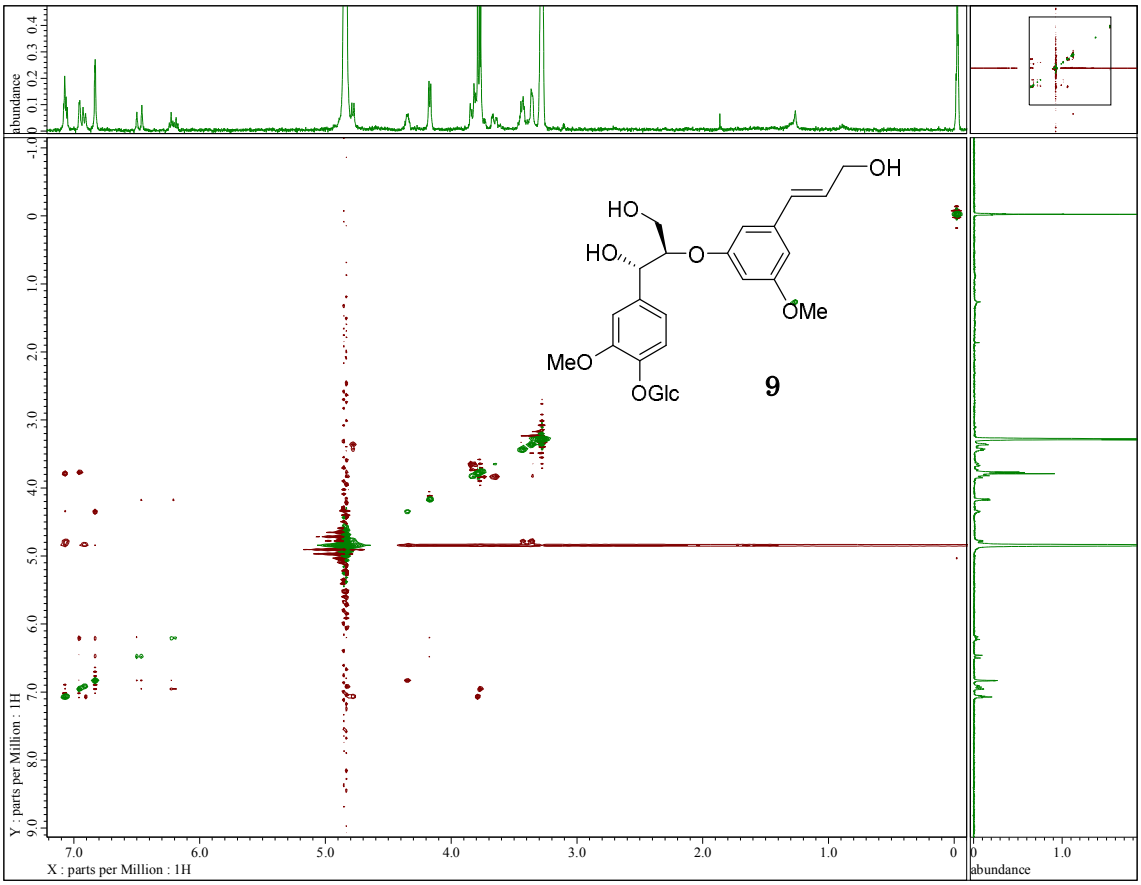


Figure S57. ^{1}H NMR spectrum of **9** (400MHz, in DMSO-d_6).

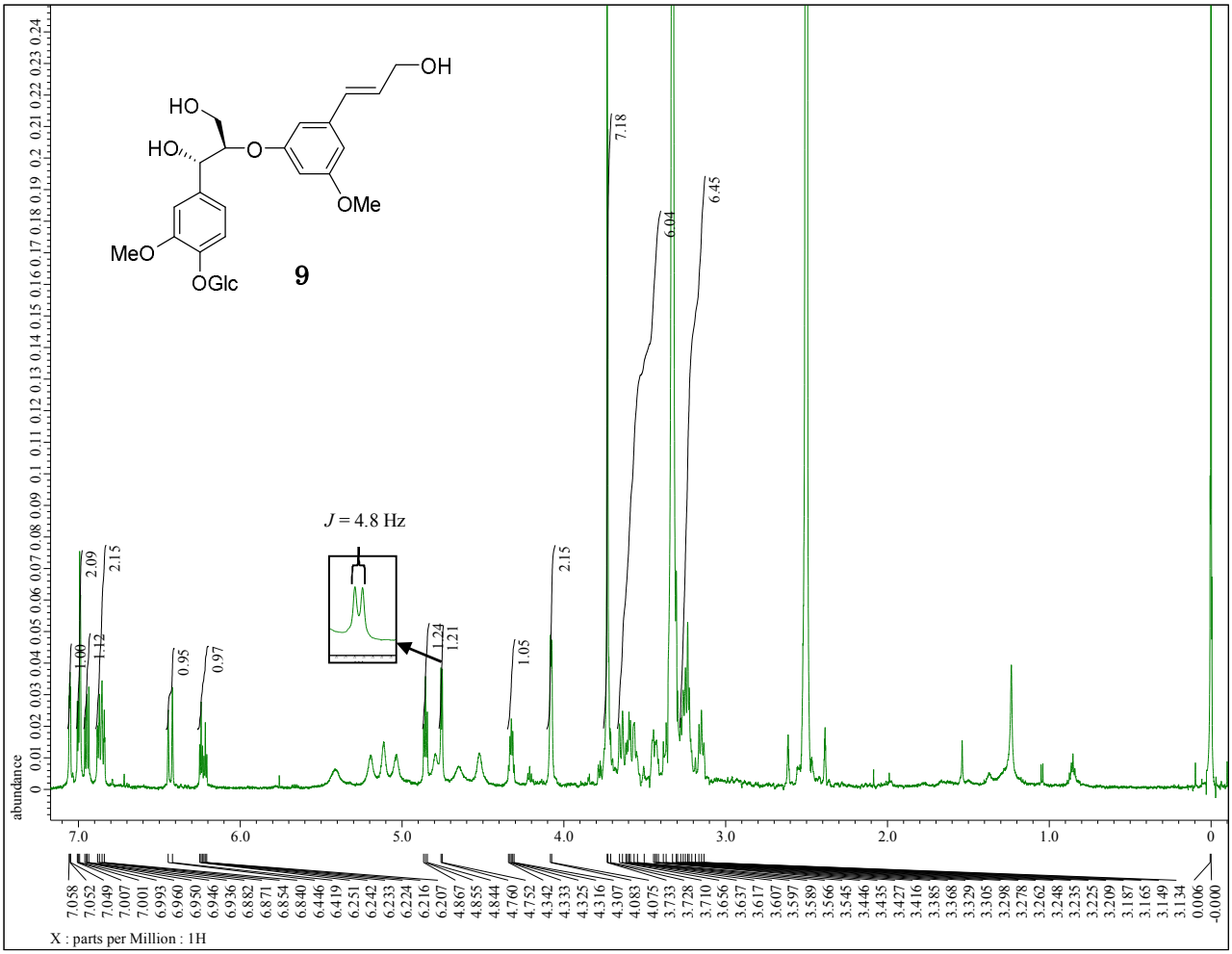


Figure S58. HRFABMS data of **1**.

Data : EI-HR-2017-066 Date : 09-Mar-2018 15:59
Instrument : MStation
Sample : 16SA-HPH-F13-e-1
Note : No.225
Inlet : Direct Ion Mode : EI+
RT : 2.50 min Scan# : 31
Elements : C 25/0, H 43/0, O 3/0
Mass Tolerance : 1000ppm, 5mmu if m/z < 5, 50mmu if m/z > 50
Unsaturation (U.S.) : -0.5 - 10.0

	Observed m/z	Int%	Err[ppm / mmu]	U.S.	Composition
1	390.3137	21.80	+0.8 / +0.3	5.0	C25 H42 O3

Figure S59. HRFABMS data of **2**.

Data : EI-HR-2017-008 Date : 27-Jun-2017 11:33
Instrument : MStation
Sample : 16SA-HPE-F3-b-4
Note : No.33
Inlet : Direct Ion Mode : EI+
RT : 1.50 min Scan# : 19
Elements : C 29/0, H 50/0, O 3/0
Mass Tolerance : 1000ppm, 5mmu if m/z < 5, 50mmu if m/z > 50
Unsaturation (U.S.) : -0.5 - 10.0

	Observed m/z	Int%	Err[ppm / mmu]	U.S.	Composition
1	446.3743	27.14	-3.8 / -1.7	5.0	C29 H50 O3

Figure S60. HRFABMS data of **3**.

Data : EI-HR-2017-065 Date : 09-Mar-2018 15:53
Instrument : MStation
Sample : 16SA-HPE-F3-b-2-a
Note : No.226
Inlet : Direct Ion Mode : EI+
RT : 2.25 min Scan# : 28
Elements : C 25/0, H 44/0, O 3/0
Mass Tolerance : 1000ppm, 5mmu if m/z < 5, 50mmu if m/z > 50
Unsaturation (U.S.) : -0.5 - 10.0

	Observed m/z	Int%	Err[ppm / mmu]	U.S.	Composition
1	392.3302	26.64	+2.9 / +1.2	4.0	C25 H44 O3

Figure S61. HRFABMS data of **4**.

Data : 分子生薬学_20180117108 Date : 03-Sep-2018 11:22
Instrument : MStation
Sample : 16SA_HPB_F1_e
Note : Nacl
Inlet : Direct Ion Mode : FAB+
RT : 6.61 min Scan# : 70
Elements : C 38/0, H 46/0, O 3/0, Na 1/0
Mass Tolerance : 1000ppm, 5mmu if m/z < 5, 50mmu if m/z > 50
Unsaturation (U.S.) : -0.5 - 5.0

	Observed m/z	Int%	Err[ppm / mmu]	U.S.	Composition
1	441.3357	100.00	+2.6 / +1.2	4.5	C27 H46 O3 Na

Figure S62. HRFABMS data of **5**.

Data : EI-HR-2017-027 Date : 18-Oct-2017 13:51
Instrument : MStation
Sample : 16SA-HPE-F4-d-1
Note : No.91
Inlet : Direct Ion Mode : EI+
RT : 14.33 min Scan# : 173
Elements : C 29/0, H 50/0, O 3/0
Mass Tolerance : 1000ppm, 5mmu if m/z < 5, 500mmu if m/z > 500
Unsaturation (U.S.) : -0.5 - 20.0

	Observed m/z	Int%	Err[ppm / mmu]	U.S.	Composition
1	446.3749	25.71	-2.5 / -1.1	5.0	C29 H50 O3

Figure S63. HRFABMS data of **6**.

Data : EI-HR-2017-025 Date : 18-Oct-2017 10:28
Instrument : MStation
Sample : 16SA-HP-LHe-F6-5-e-1
Note : No.93
Inlet : Direct Ion Mode : EI+
RT : 10.58 min Scan# : 128
Elements : C 25/0, H 44/0, O 4/0
Mass Tolerance : 1000ppm, 5mmu if m/z < 5, 500mmu if m/z > 500
Unsaturation (U.S.) : -0.5 - 10.0

	Observed m/z	Int%	Err[ppm / mmu]	U.S.	Composition
1	408.3230	26.36	-2.4 / -1.0	4.0	C25 H44 O4

Figure S64. HRFABMS data of **7**.

Data : EI-HR-2017-064 Date : 09-Mar-2018 15:46
Instrument : MStation
Sample : 16SA-HPE-F4-f-2-b
Note : No.227
Inlet : Direct Ion Mode : EI+
RT : 3.84 min Scan# : 47
Elements : C 28/0, H 50/0, O 4/0
Mass Tolerance : 1000ppm, 5mmu if m/z < 5, 50mmu if m/z > 50
Unsaturation (U.S.) : -0.5 - 10.0

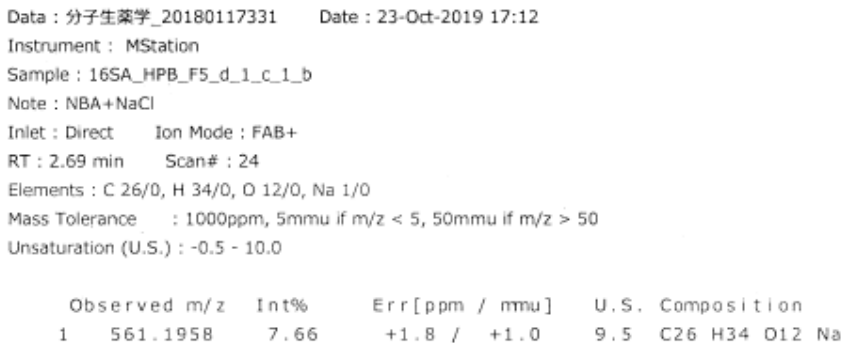
	Observed m/z	Int%	Err[ppm / mmu]	U.S.	Composition
1	450.3702	16.95	-1.6 / -0.7	4.0	C28 H50 O4

Figure S65. HRFABMS data of **8**.

Data : 分子生薬学_20180117330 Date : 23-Oct-2019 16:50
Instrument : MStation
Sample : 16SA_HPB_F5_a_4_b
Note : NBA+NaCl
Inlet : Direct Ion Mode : FAB+
RT : 2.22 min Scan# : 20
Elements : C 27/0, H 36/0, O 13/0, Na 1/0
Mass Tolerance : 1000ppm, 5mmu if m/z < 5, 50mmu if m/z > 50
Unsaturation (U.S.) : -0.5 - 10.0

	Observed m/z	Int%	Err[ppm / mmu]	U.S.	Composition
1	591.2022	34.41	-5.3 / -3.2	9.5	C27 H36 O13 Na

Figure S66. HRFABMS data of **9**.



Data : 分子生薬学_20180117331 Date : 23-Oct-2019 17:12
Instrument : MStation
Sample : 16SA_HPB_F5_d_1_c_1_b
Note : NBA+NaCl
Inlet : Direct Ion Mode : FAB+
RT : 2.69 min Scan# : 24
Elements : C 26/0, H 34/0, O 12/0, Na 1/0
Mass Tolerance : 1000ppm, 5mmu if m/z < 5, 50mmu if m/z > 50
Unsaturation (U.S.) : -0.5 - 10.0

	Observed m/z	Int%	Err[ppm / mmu]	U.S.	Composition
1	561.1958	7.66	+1.8 / +1.0	9.5	C26 H34 O12 Na