

β -D-GALACTOPYRANOSIDE SECO-PHYTOPORPHYRIN FROM *ATROPA BELLADONNA* AND *SOLANUM TUBEROSUM* YELLOW LEAVES DETERMINED BY NUCLEAR MAGNETIC RESONANCE

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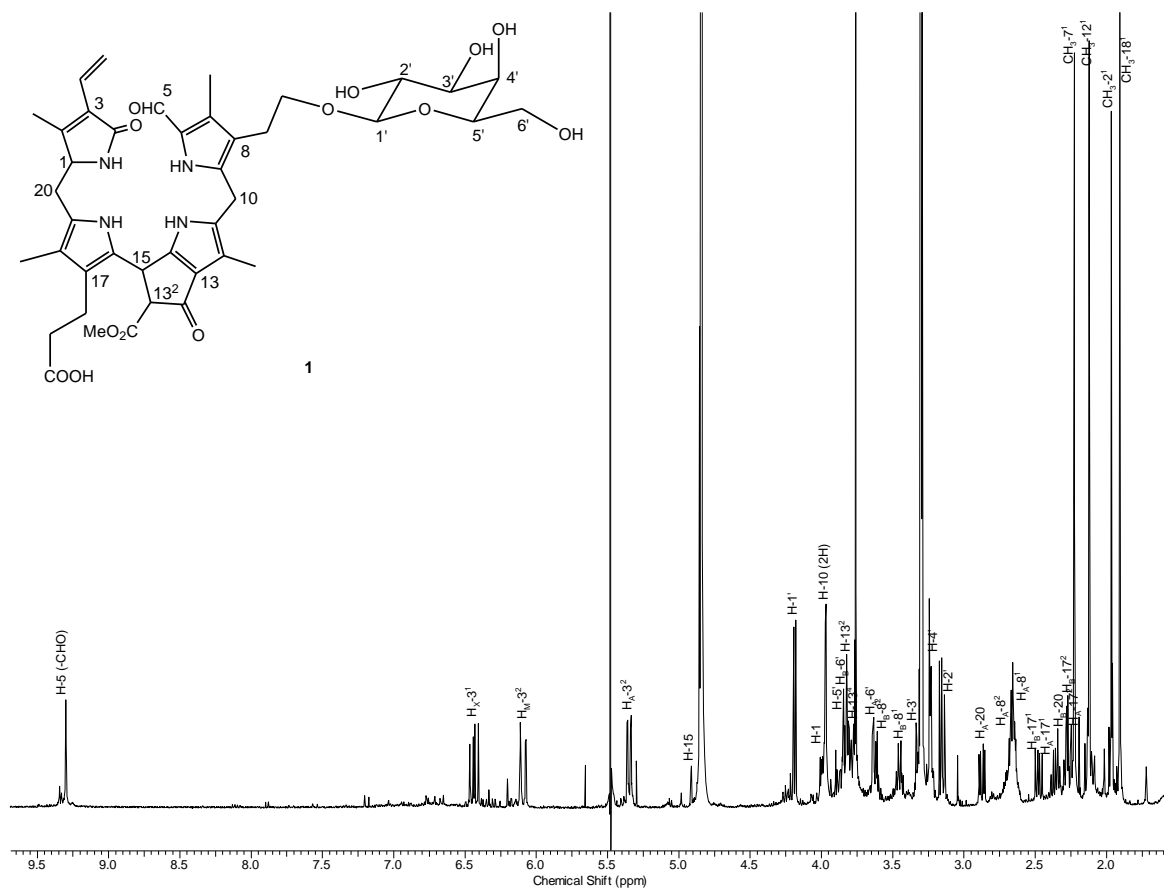


Figure S1. ^1H NMR spectrum (500 MHz) of *A. belladonne* chlorophyll catabolite 1 in CD_3OD .

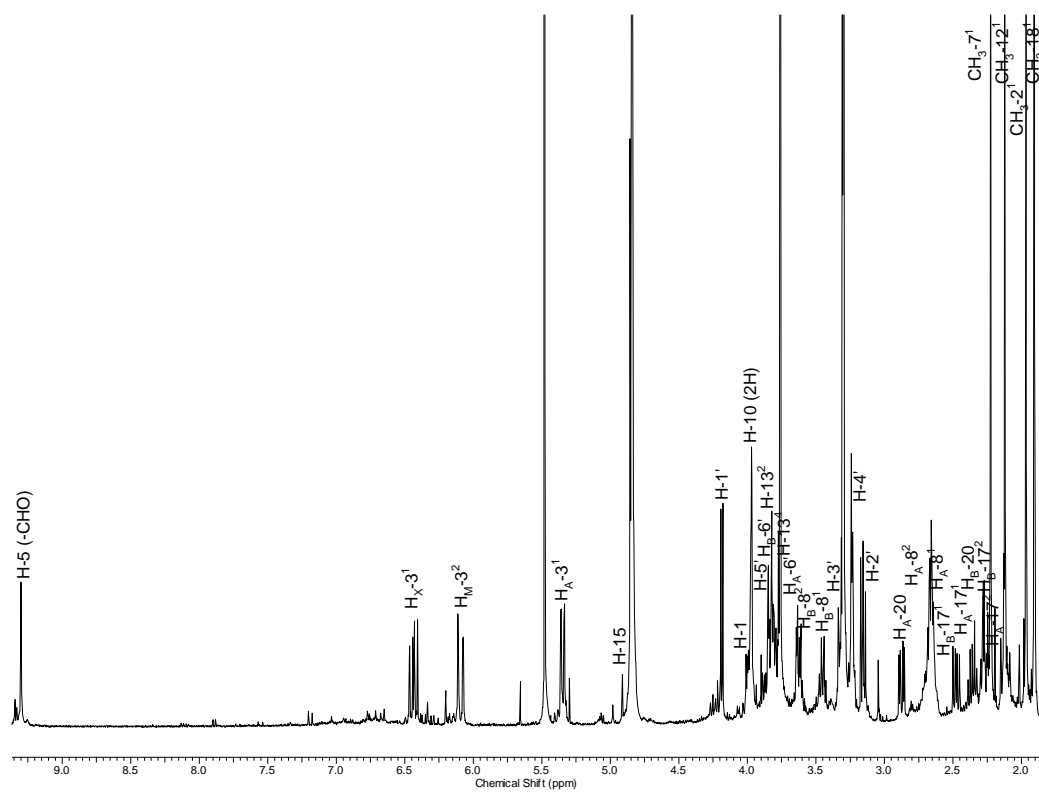


Figure S2. ^1H NMR spectrum (500 MHz) of *S. tuberosum* chlorophyll catabolite 1 in CD_3OD .

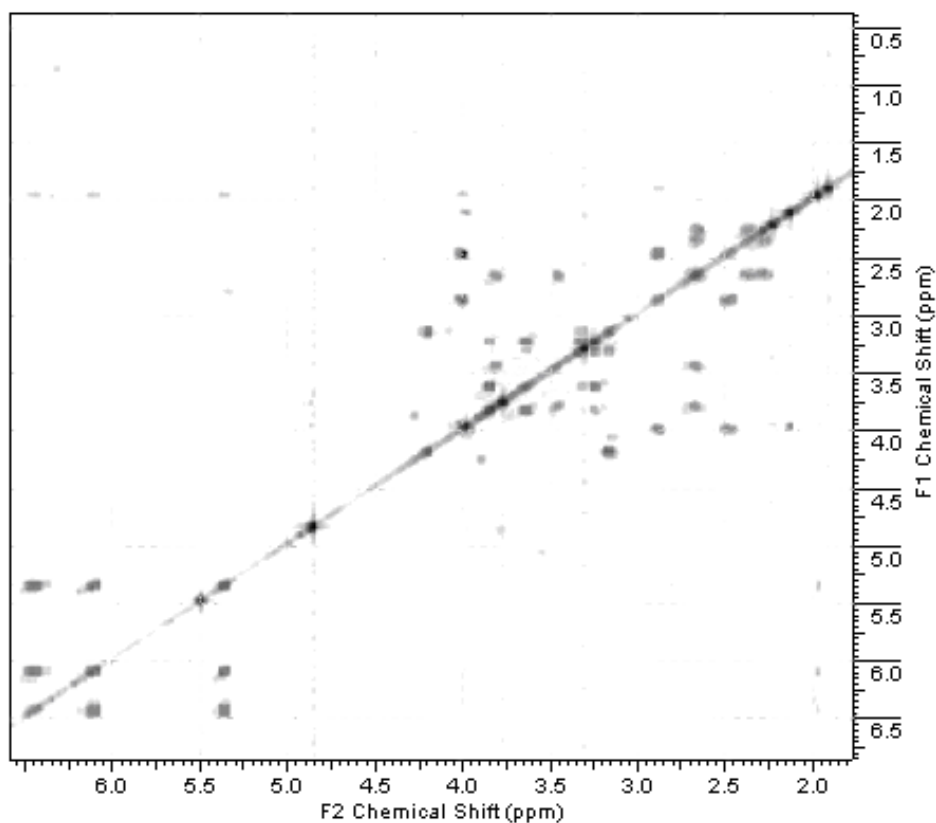


Figure S3. The COSY spectrum of 1.

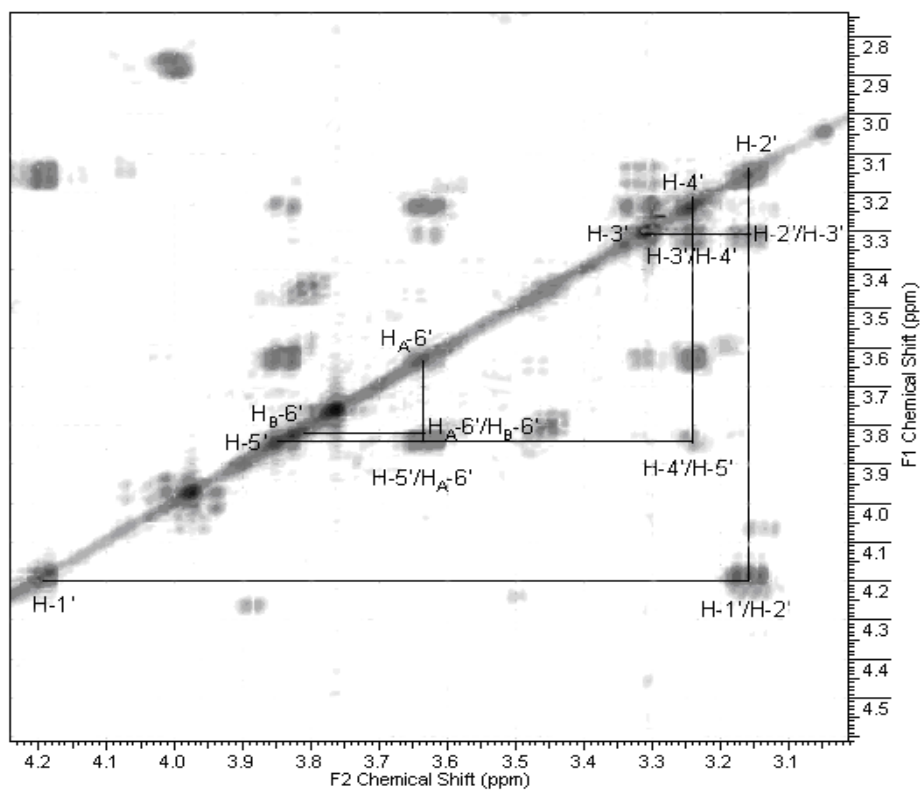


Figure S4. The COSY spectrum of 1 enlarged in the sugar unit.

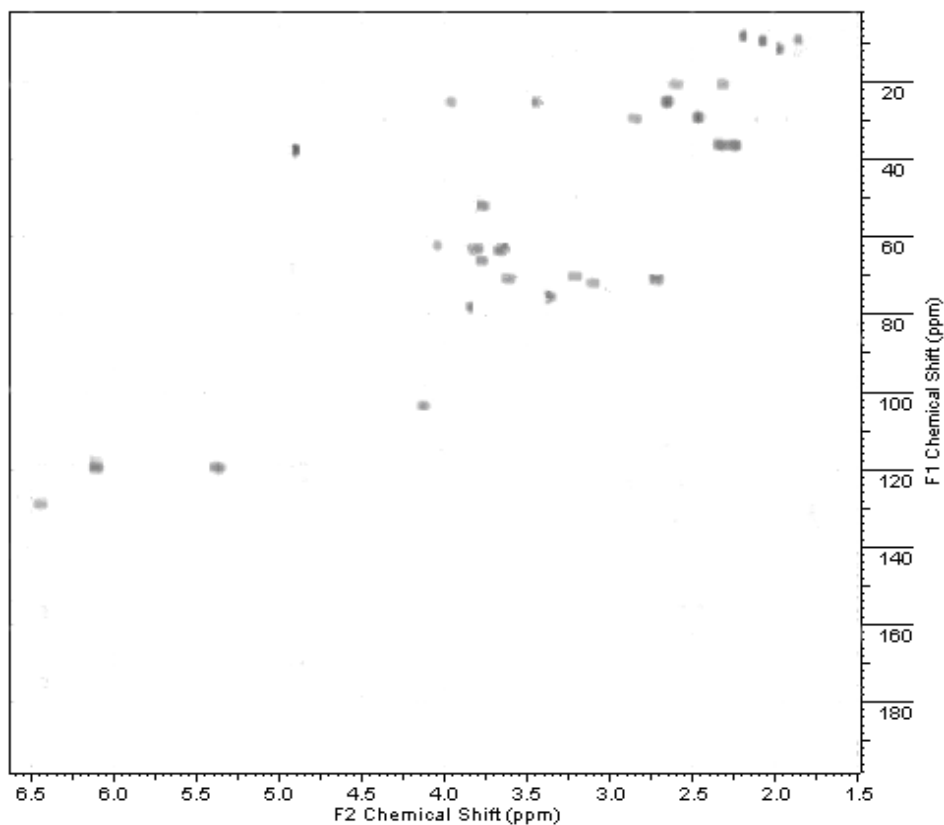


Figure S5. The HSQC spectrum of 1.

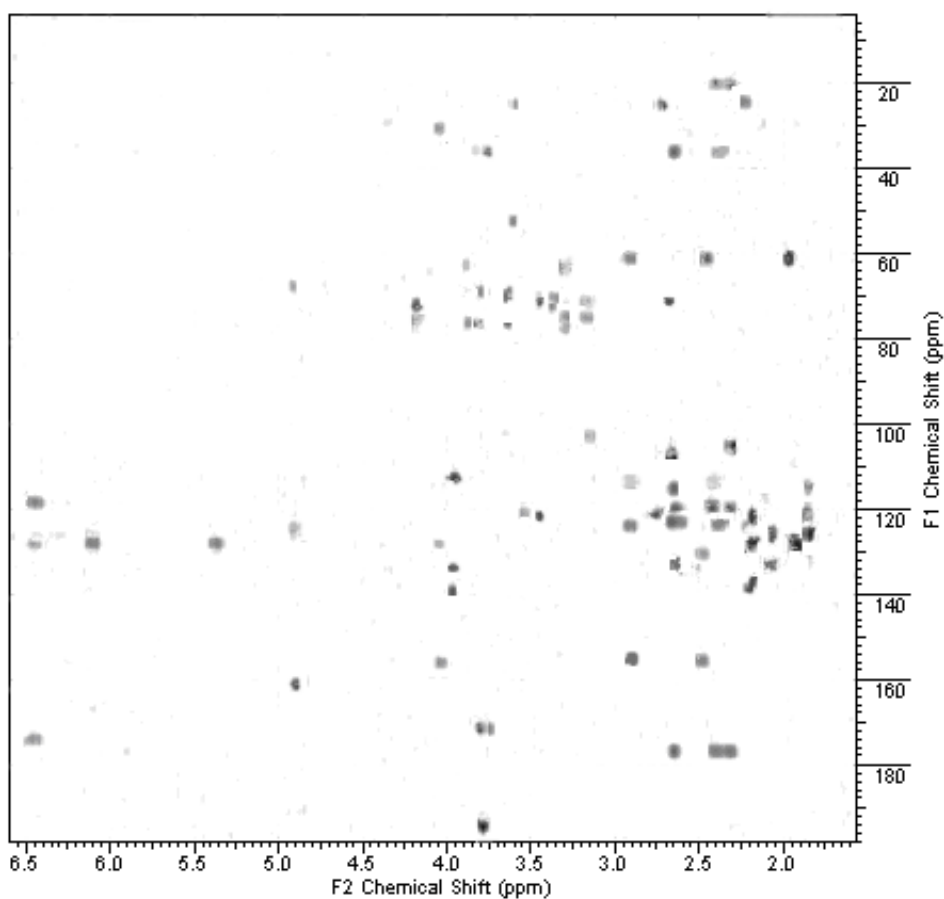


Figure S6. The HMBC spectrum of 1.

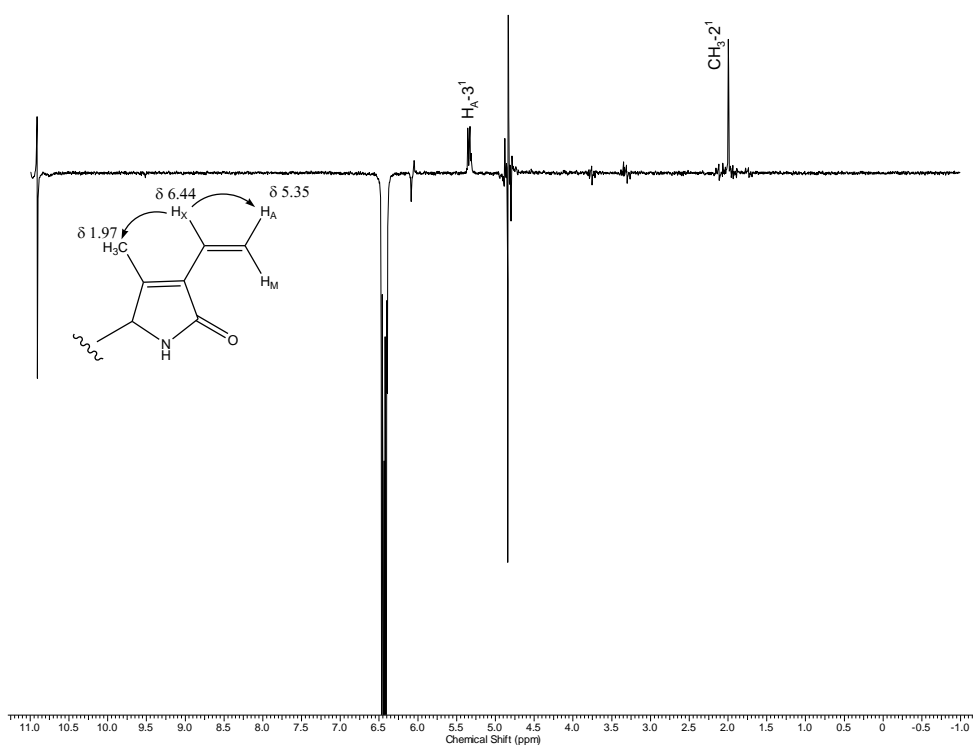


Figure S7. The NOE spectrum after $H-3^1$ irradiation.

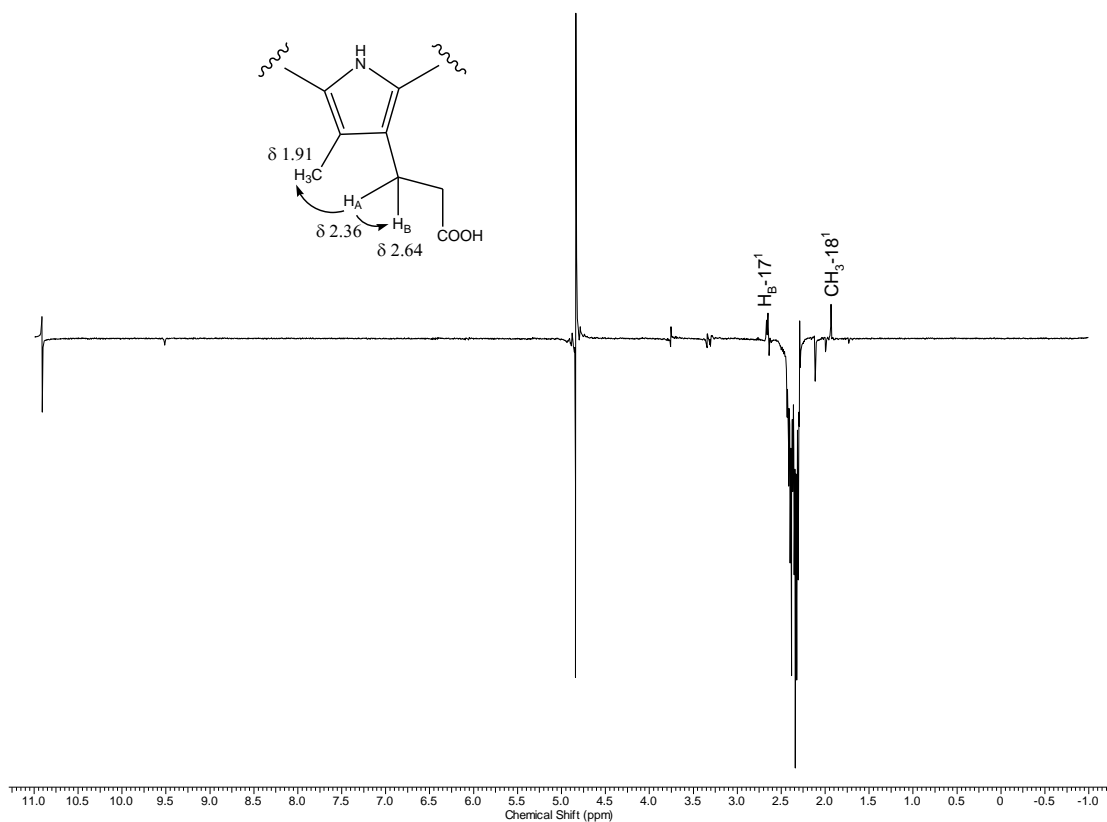


Figure S8. The NOE spectrum after H_A-17¹ irradiation.

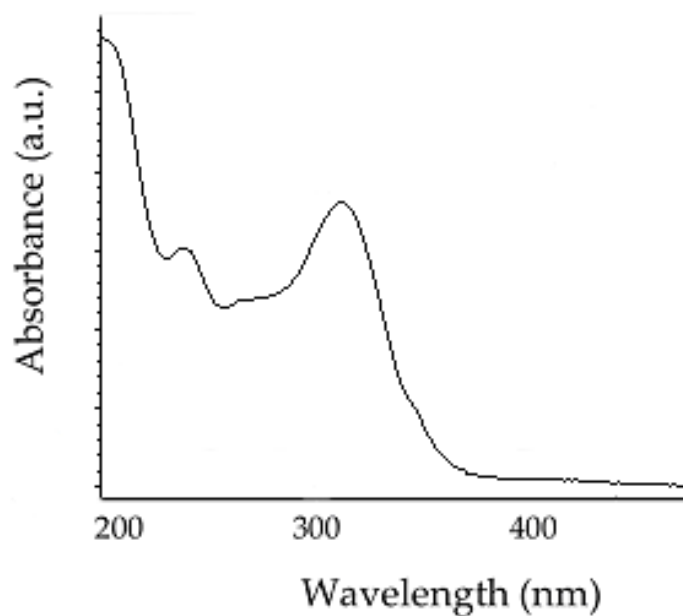


Figure S9. The UV-Vis spectrum of 1.

Table S1

¹ H- and ¹³ C- NMR spectral data for compound 1 (500 MHz, 125.75 MHz, CD ₃ OD).				
Position	<i>A. belladonna</i> 1		<i>S. tuberosum</i> 1	
	δ_{H} , multiplicity, <i>J</i> (HZ)	δ_{C}	δ_{H} , multiplicity, <i>J</i> (HZ)	δ_{C}
1	4.01 <i>dd</i> (4.6, 8.4)	61.5	4.01 <i>dd</i> (4.6, 8.4)	61.5
2		156.0		156.0
2 ¹	1.97 <i>s</i>	12.5	1.97 <i>s</i>	12.5
3		128.7		128.7
3 ¹	6.44 <i>dd</i> (11.7, 17.7)	127.1	6.44 <i>dd</i> (11.7, 17.7)	127.1
3 ²	5.35 <i>dd</i> (2.4, 11.7) H _A 6.09 <i>dd</i> (2.4, 17.7) H _M	119.0	5.35 <i>dd</i> (2.4, 11.7) H _A 6.09 <i>dd</i> (2.4, 17.7) H _M	119.0
4		174.5		174.5
5	9.30 <i>s</i>	178.0	9.30 <i>s</i>	178.0
6		129.1		129.1
7		135.2		135.2
7 ¹	2.23 <i>s</i>	8.7	2.23 <i>s</i>	8.7
8		121.1		121.1
8 ¹	2.67 <i>ddd</i> (1.8, 7.2, 12.9) H _A 3.45 <i>ddd</i> (2.2, 7.0, 12.9) H _B	24.9	2.67 <i>ddd</i> (1.8, 7.2, 12.8) H _A 3.45 <i>ddd</i> (2.2, 7.1, 12.9) H _B	24.9
8 ²	2.70 <i>ddd</i> (2.2, 7.1, 11.5) H _A 3.62 <i>ddd</i> (1.9, 6.8, 11.9) H _B	70.3	2.70 <i>ddd</i> (2.2, 7.1, 11.5) H _A 3.62 <i>ddd</i> (1.9, 6.8, 11.9) H _B	70.3
9		139.2		139.2
10	3.97 <i>d</i> (2.6)	23.7	3.97 <i>d</i> (2.6)	23.7
11		133.8		133.8
12		112.9		112.9
12 ¹	2.12 <i>s</i>	9.2	2.12 <i>s</i>	9.2
13		125.7		125.7
13 ¹		194.8		194.8
13 ²	3.78 <i>t</i> (2.3)	67.7	3.78 <i>t</i> (2.3)	67.7
13 ³		171.5		171.5
13 ⁴	3.76 <i>s</i>	52.6	3.76 <i>s</i>	52.6
14		161.0		161.0
15	4.91 <i>d</i> (2.4)	37.2	4.91 <i>d</i> (2.4)	37.2
16		125.1		125.1
17		120.2		120.2
17 ¹	2.36 <i>dd</i> (6.5, 14.4) H _A 2.64 <i>dd</i> (6.6, 14.5) H _B	20.8	2.36 <i>dd</i> (6.5, 14.4) H _A 2.64 <i>dd</i> (6.6, 14.5) H _B	20.8
17 ²	2.26 <i>dd</i> (6.6, 13.3) H _A 2.29 <i>dd</i> (6.6, 13.0) H _B	37.2	2.26 <i>dd</i> (6.8, 13.3) H _A 2.29 <i>dd</i> (6.6, 13.0) H _B	37.2
17 ³		177.9		177.9
18		114.7		114.7

Position	<i>A. belladonna I</i>		<i>S. tuberosum I</i>	
	δ_{H} , multiplicity, J(HZ)	δ_{C}	δ_{H} , multiplicity, J(HZ)	δ_{C}
18 ¹	1.91 s	9.0	1.91 s	9.0
19		124.7		124.7
20	2.87 dd (5.0, 14.7) H _A 2.47 dd (9.0, 14.5) H _B	29.7	2.87 dd (5.0, 14.7) H _A 2.47 dd (9.0, 14.5) H _B	29.7
1'	4.19 d (7.8)	103.6	4.19 d (7.8)	103.6
2'	3.16 dd (7.8, 9.2)	72.0	3.16 dd (7.8, 9.2)	72.0
3'	3.33 dt (9.5, 4.1)	75.0	3.33 dt (9.3, 4.0)	75.0
4'	3.24 dd (4.0, 4.5)	70.2	3.24 dd (4.2, 4.6)	70.2
5'	3.85 ddd (4.4, 2.4, 6.6)	78.0	3.85 ddd (4.6, 2.6, 6.7)	78.0
6'	3.64 dd (2.6, 11.9) H _A 3.80 dd (6.8, 11.9) H _B	62.5	3.64 dd (2.7, 11.9) H _A 3.80 dd (6.8, 11.9) H _B	62.5