

Supplementary Information

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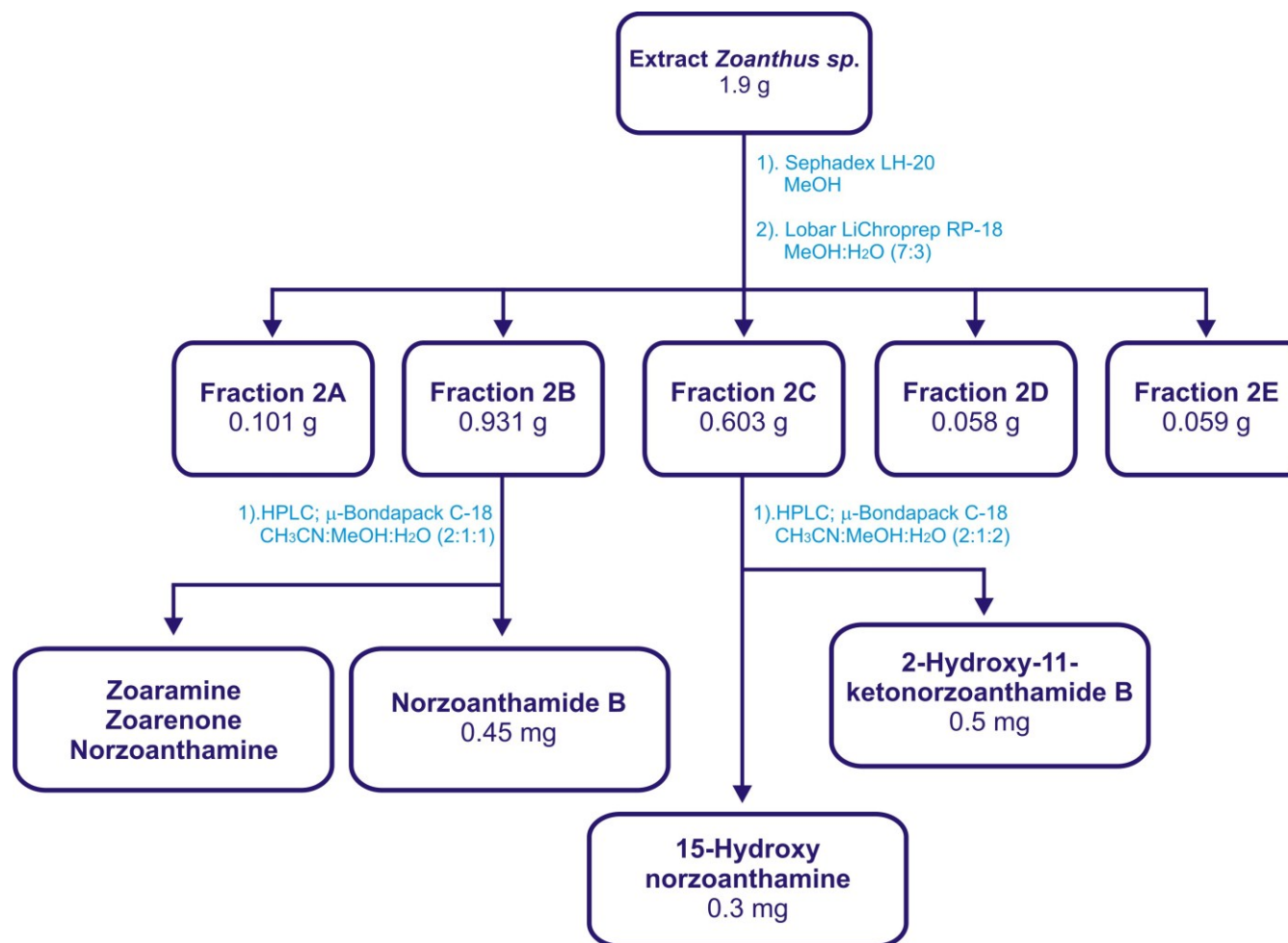
Figure S1. Isolation procedure for 2-hydroxy-11-ketonorzoanthamide B (1), norzoanthamide B (2) and 15-hydroxynorzoanthamine (3).

Table S1. NMR chemical shifts of 2-hydroxy-11-ketonorzoanthamide B (**1**).

<i>n</i> °C	δ ¹³ C	δ ¹ H	Multiplicity	<i>J</i> (Hz)
1	170.6			
2	100.6			
3	38.0	1.43; 2.03	dd; dd	11.2; 12.0
4	24.5	2.05	m	
5	40.3	1.15; 2.05	dd; dd	12.3; 14.8
6	90.2			
7	28.7	1.92; 2.14		2.9; 4.0; 13.7; 3.1; 12.1; 13.7
8	23.8	1.70; 1.86		3.1; 4.0; 13.4; 2.9; 12.1; 13.4
9	43.9			
10	95.7			
11	195.8			
12	54.9			
13	46.7	2.76	dd	3.6; 10.3; 12.0
14	32.7	2.17; 2.98	dd; dd	10.3; 18.2; 3.6; 18.2
15	162.2			
16	124.5	5.90	s	
17	197.9			
18	46.0	2.70	dd	5.8; 11.3; 12.0
19	42.7	2.48; 2.67	dd; dd	11.3; 13.3; 5.8; 13.3
20	206.9			
21	60.8	2.89	s	
22	38.1			
23	34.6	2.55; 4.27	d; d	20.6; 20.6
24	168.1			
25	20.9	1.01	s	
27	24.4	2.01	s	
28	14.1	1.34	s	
29	17.7	1.03	s	
30	20.9	1.00	d	6.0

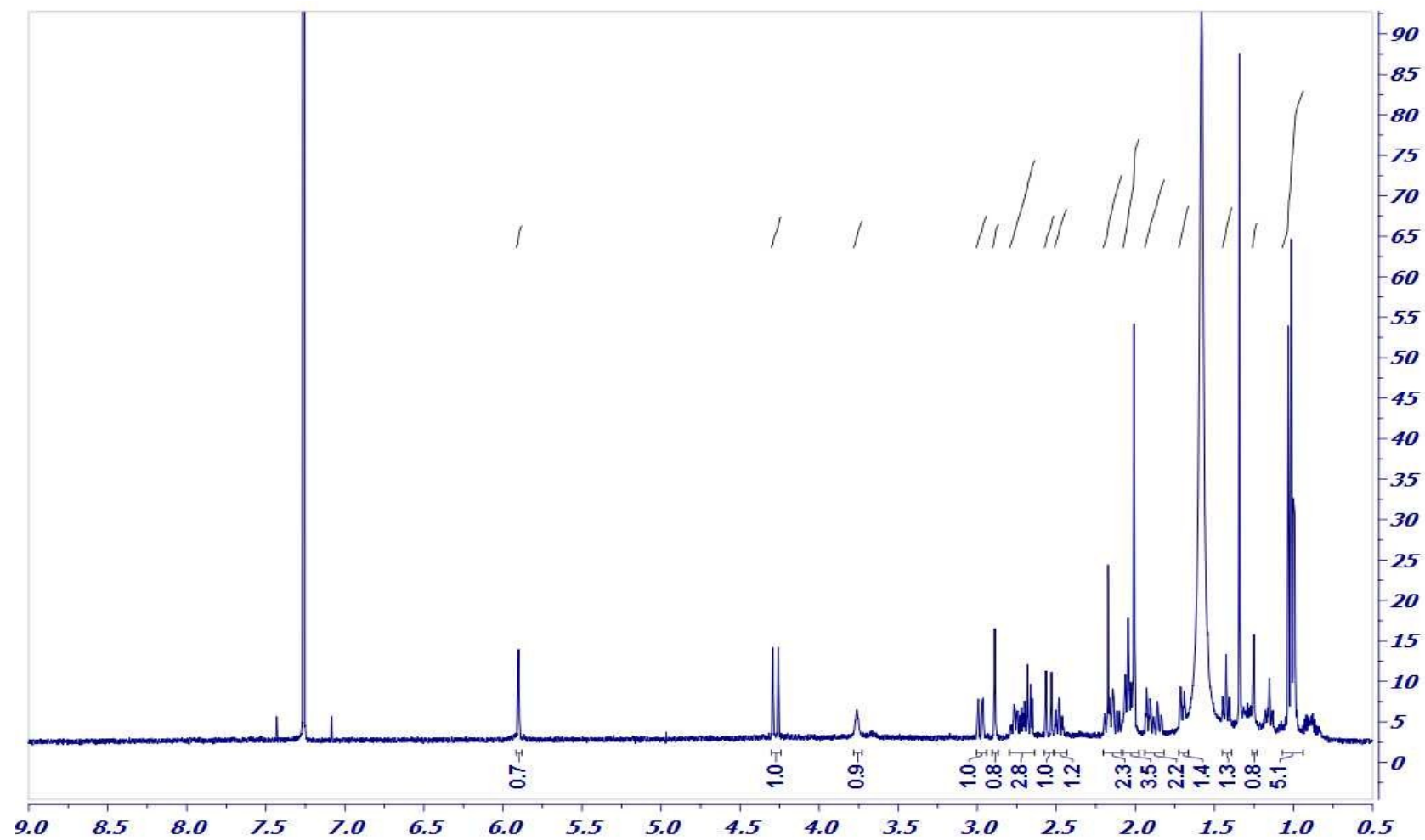
Figure S2. ^1H -NMR spectrum of 2-hydroxy-11-ketonorzoanthamide B (**1**).

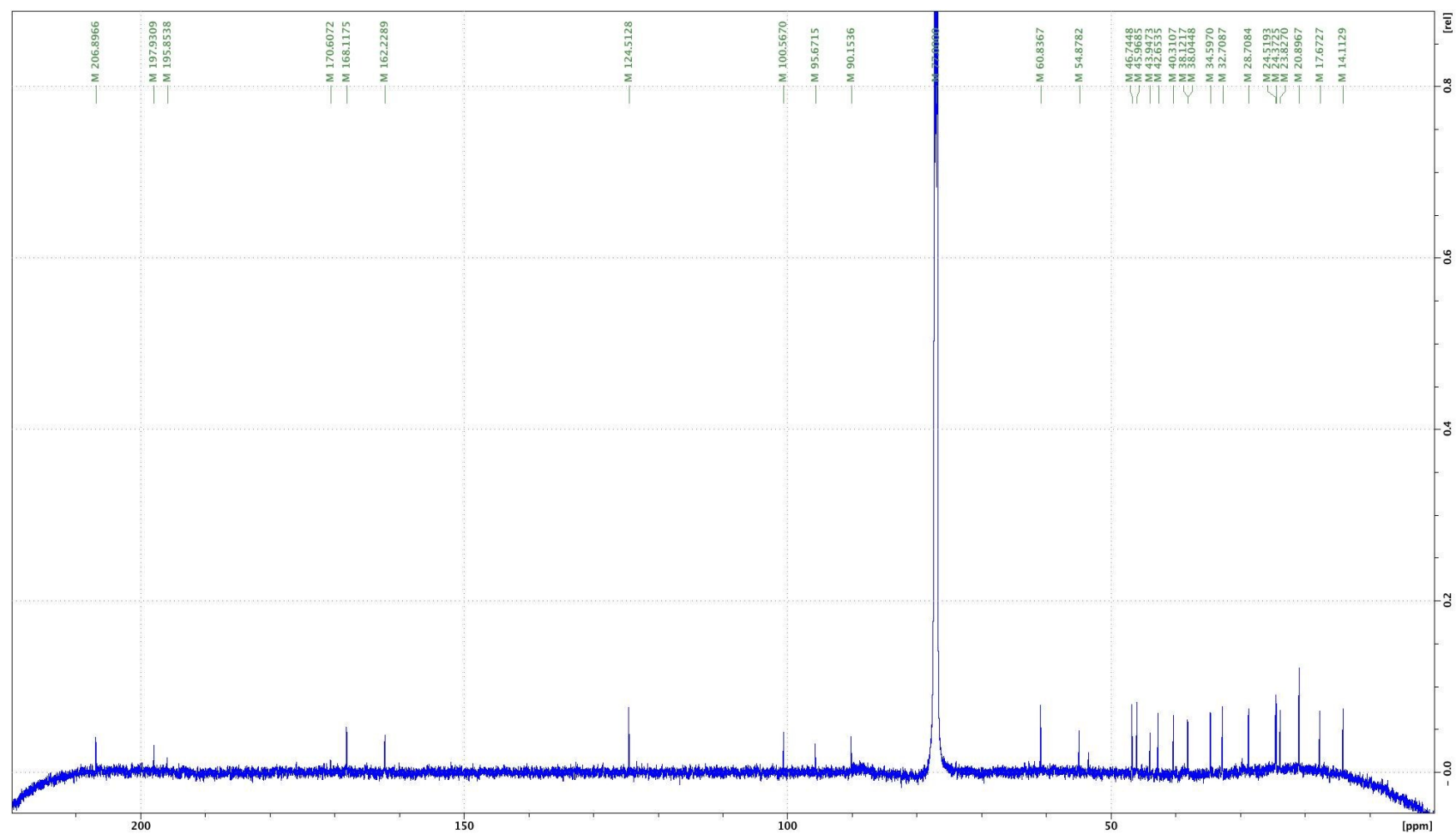
Figure S3. ^{13}C -NMR spectrum of 2-hydroxy-11-ketonorzoanthamide B (**1**).

Figure S4. COSY spectrum of 2-hydroxy-11-ketonorzoanthamide B (**1**).

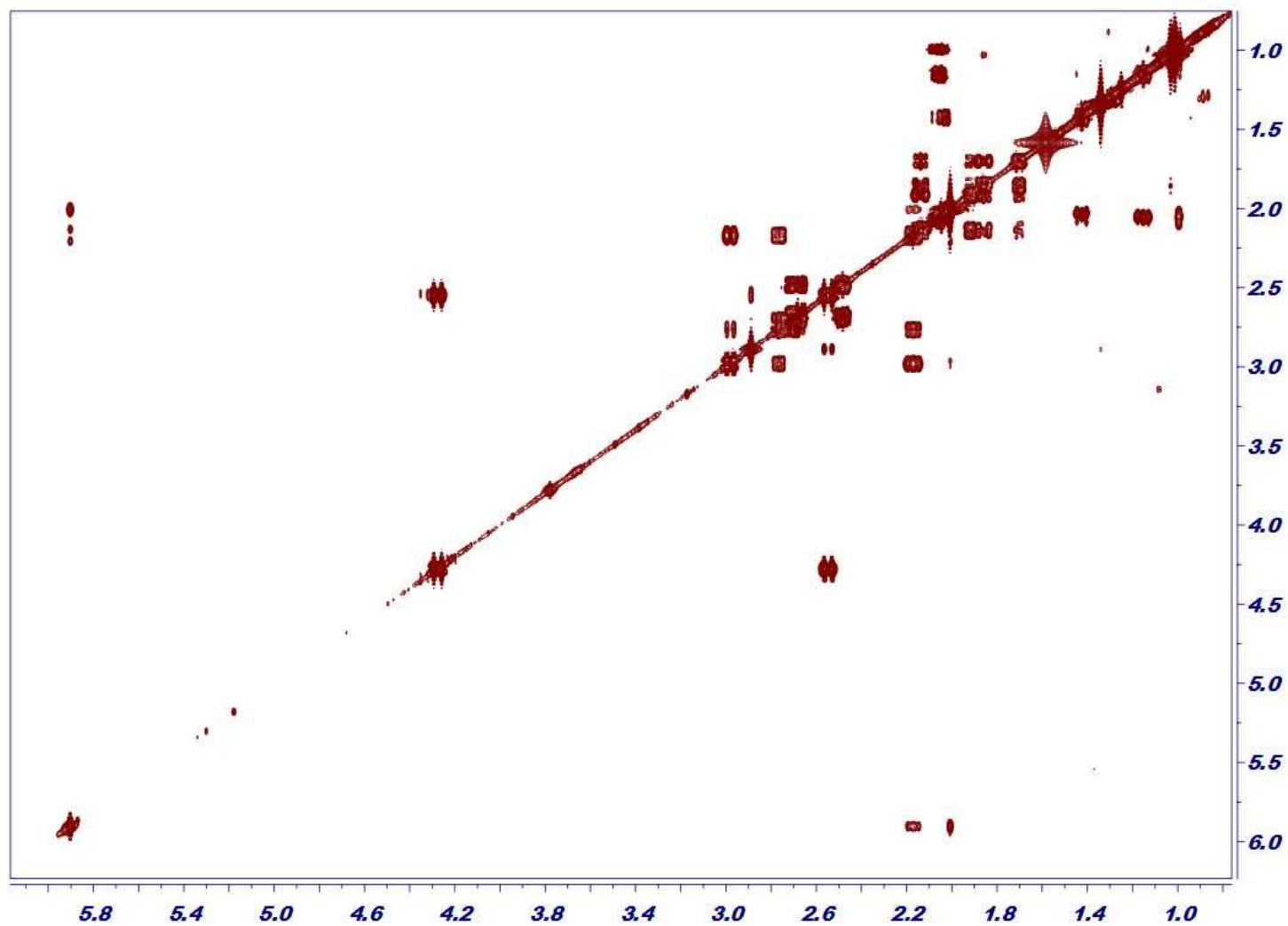


Figure S5. HSQC spectrum of 2-hydroxy-11-ketonorzoanthamide B (1).

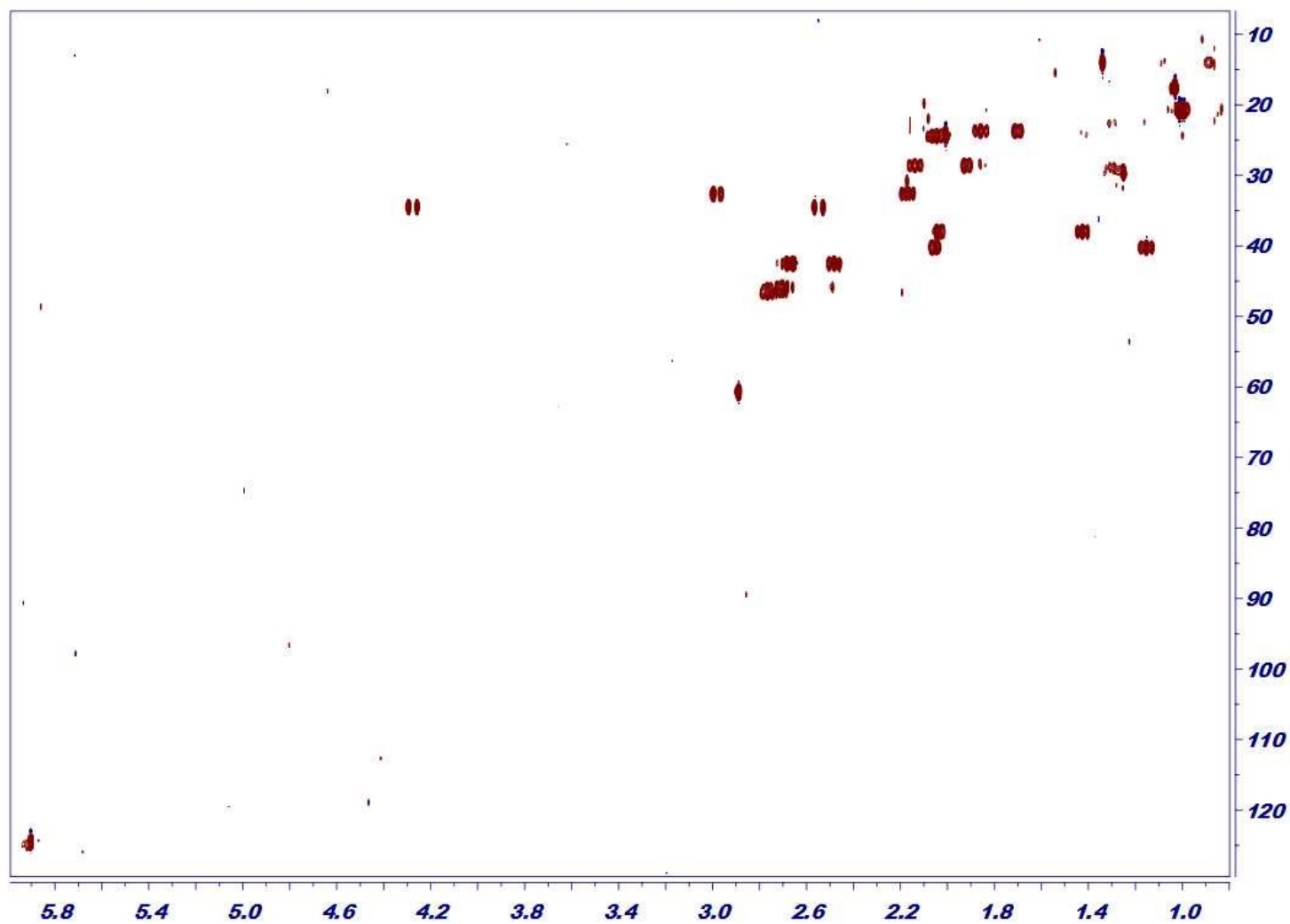


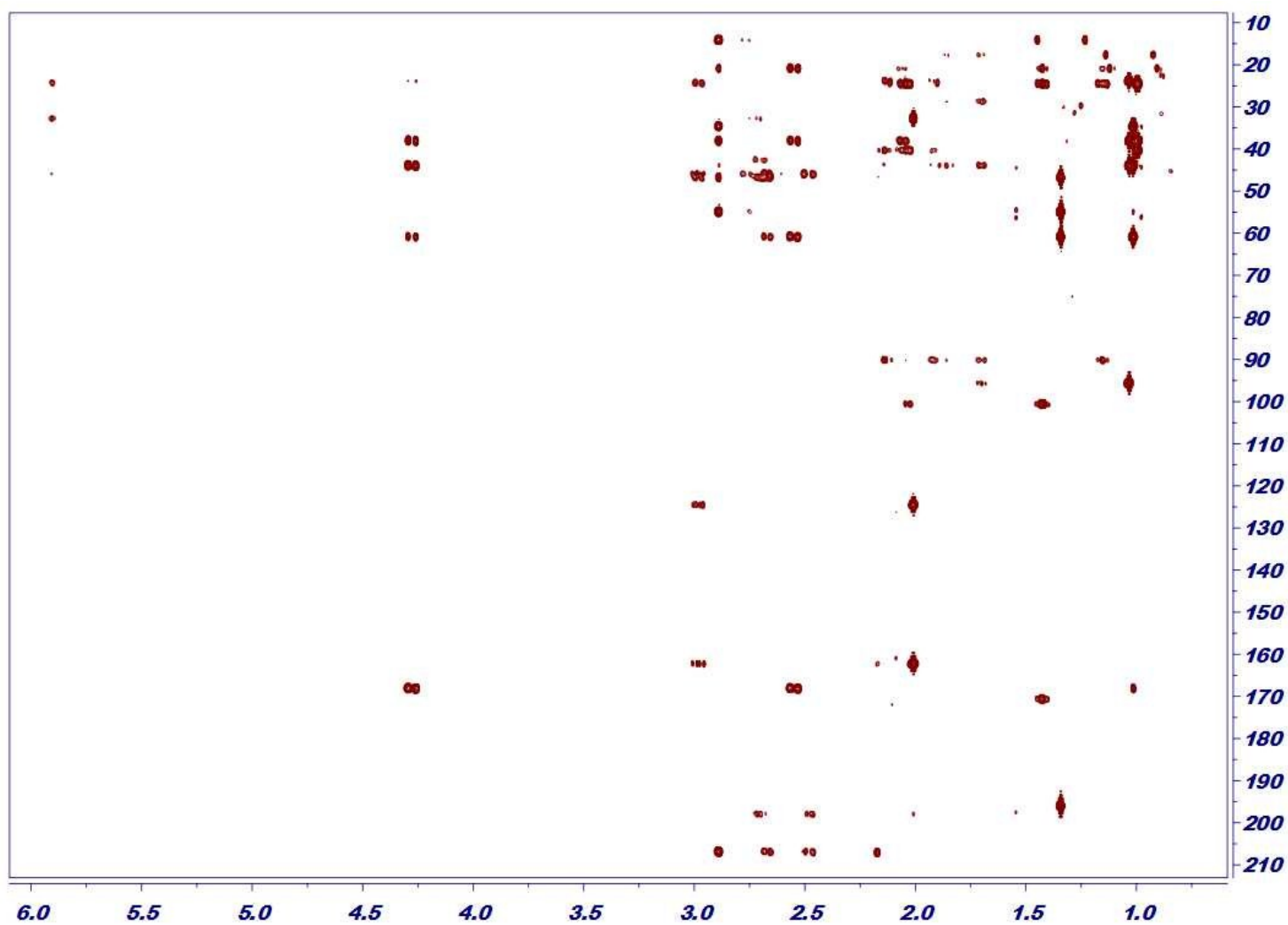
Figure S6. HMBC spectrum of 2-hydroxy-11-ketonorzoanthamide B (1).

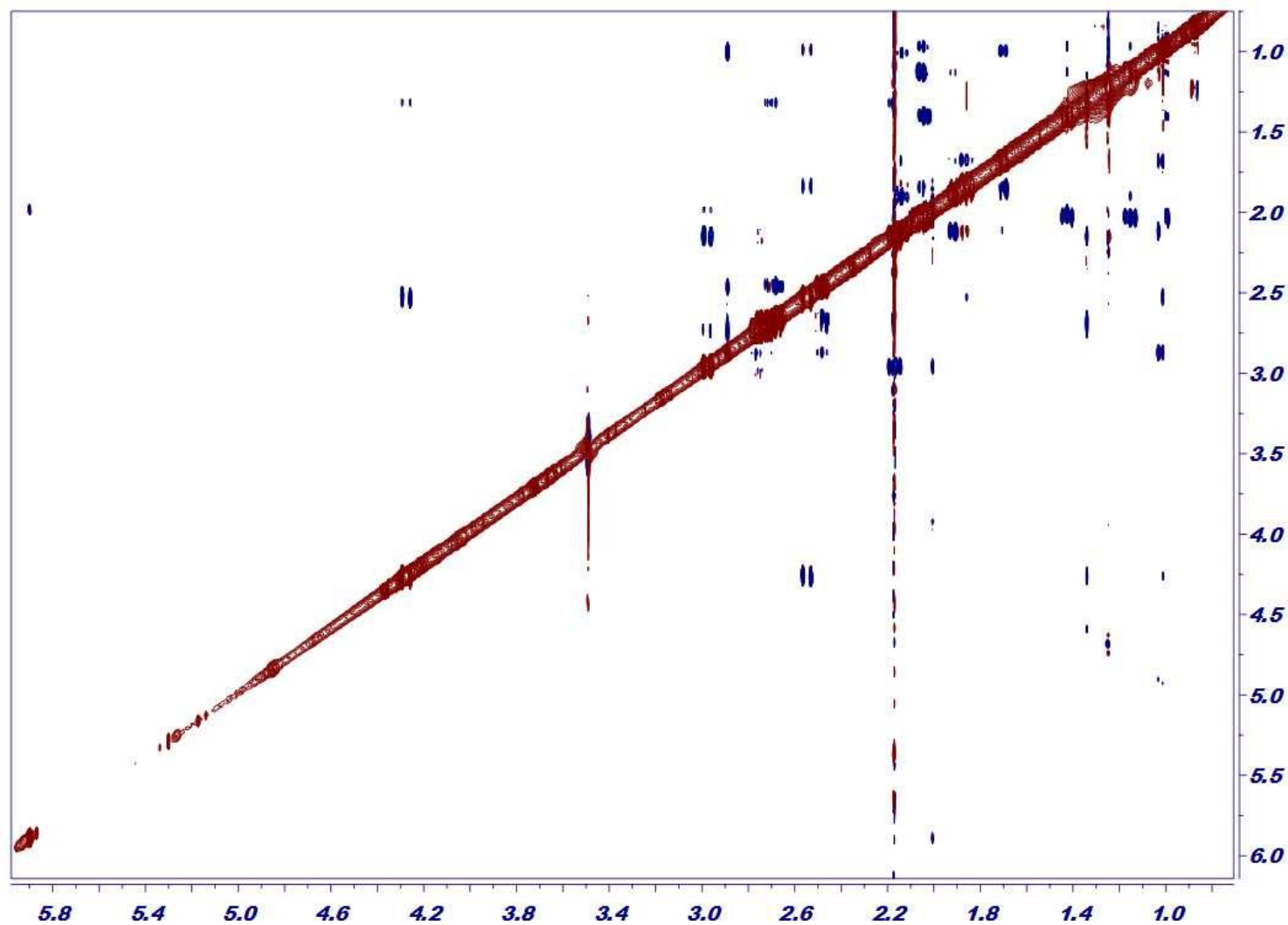
Figure S7. ROESY spectrum of 2-hydroxy-11-ketonorzoanthamide B (1).

Figure S8. MS spectrum of 2-hydroxy-11-ketonorzoanthamide B (**1**).

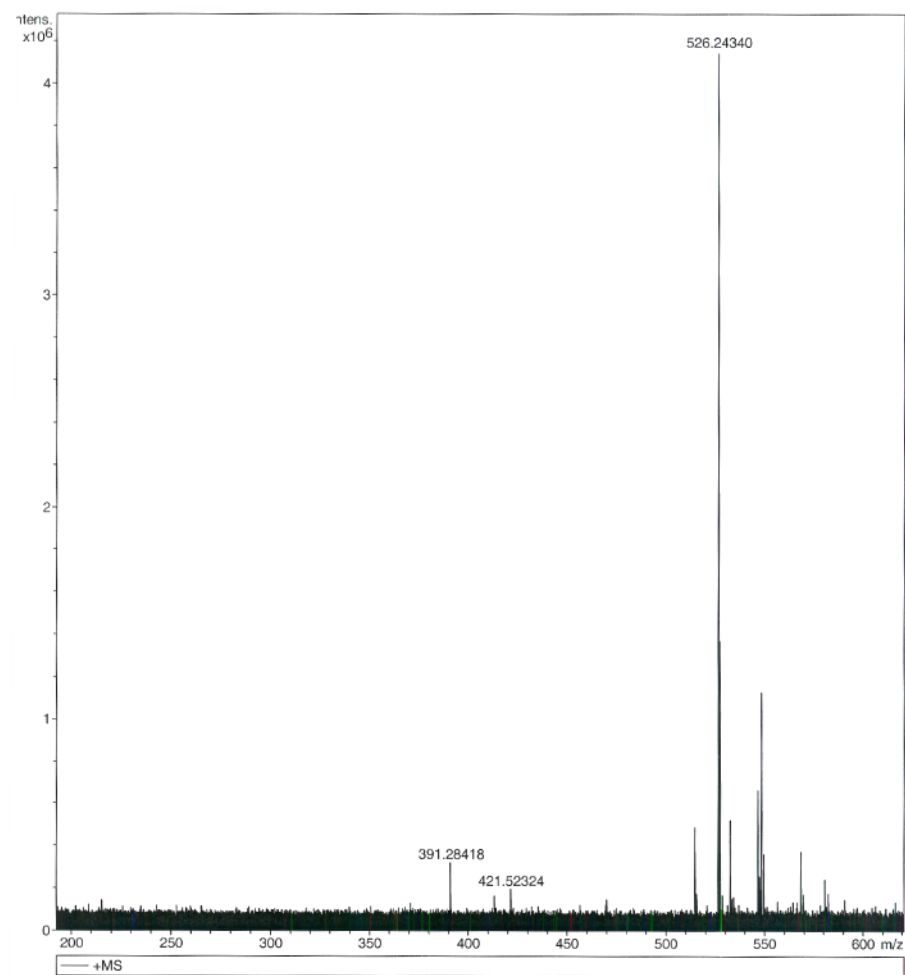


Table S2. NMR chemical shifts of norzoanthamide B (2).

n	°C	δ ¹³C	δ ¹H	Multiplicity	<i>J</i> (Hz)
1		174.5			
2		77.0	4.25	dd	2.1; 3.6
3		32.7	1.41; 1.86	ddd; ddd	3.6; 12.0; 13.5; 2.1; 4.5; 13.5
4		23.8	2.22	dddd	4.2; 4.5; 11.1; 12.0
5		40.7	1.18; 2.19	dd; dd	11.1; 13.2; 4.2; 13.2
6		93.4			
7		29.7	1.90; 2.08	ddd; ddd	3.1; 4.2; 13.5; 5.6; 13.3; 13.5
8		22.6	1.63; 1.65	m; m	
9		39.8			
10		96.6			
11		40.3	2.30; 3.52	d; d	15.2; 15.2
12		39.7			
13		53.3	2.22	dd	4.0; 12.0; 12.1;
14		31.9	2.31; 2.44	dd; dd	12.1; 17.9; 4.0; 17.9
15		160.6			
16		125.3	5.90	s	
17		198.3			
18		46.2	2.70	dd	5.5; 11.3; 12.0
19		42.3	2.51; 2.66	dd; dd	11.3; 13.7; 5.5; 13.7
20		208.7			
21		58.5	2.83	s	
22		36.1			
23		36.1	2.43; 3.70	d; d	20.6; 20.6
24		170.0			
25		20.8	1.04	s	
27		24.2	2.10	s	
28		17.9	0.97	s	
29		16.9	1.22	s	
30		21.3	0.99	d	6.4

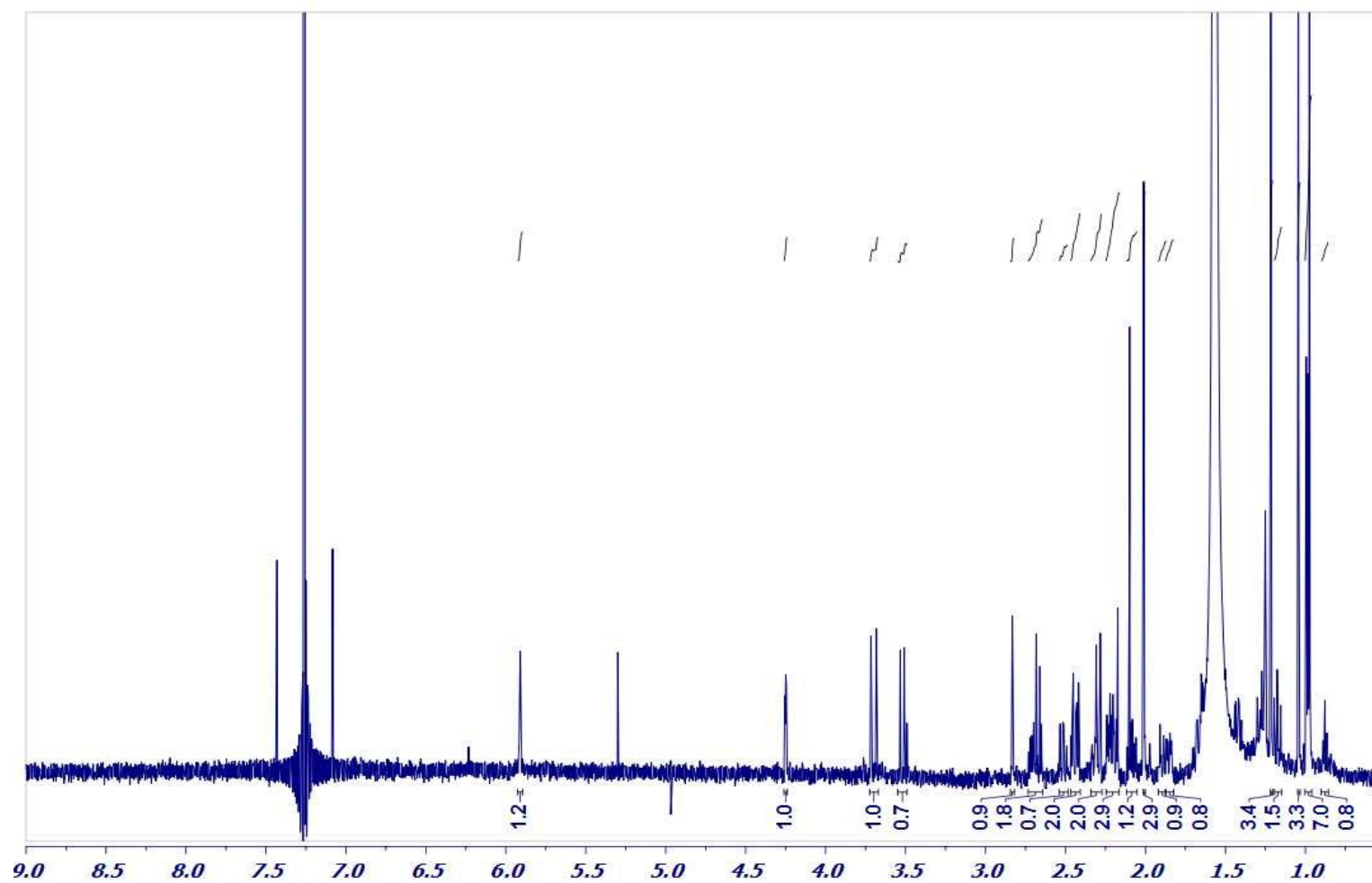
Figure S9. ^1H -NMR spectrum of norzoanthamide B (2).

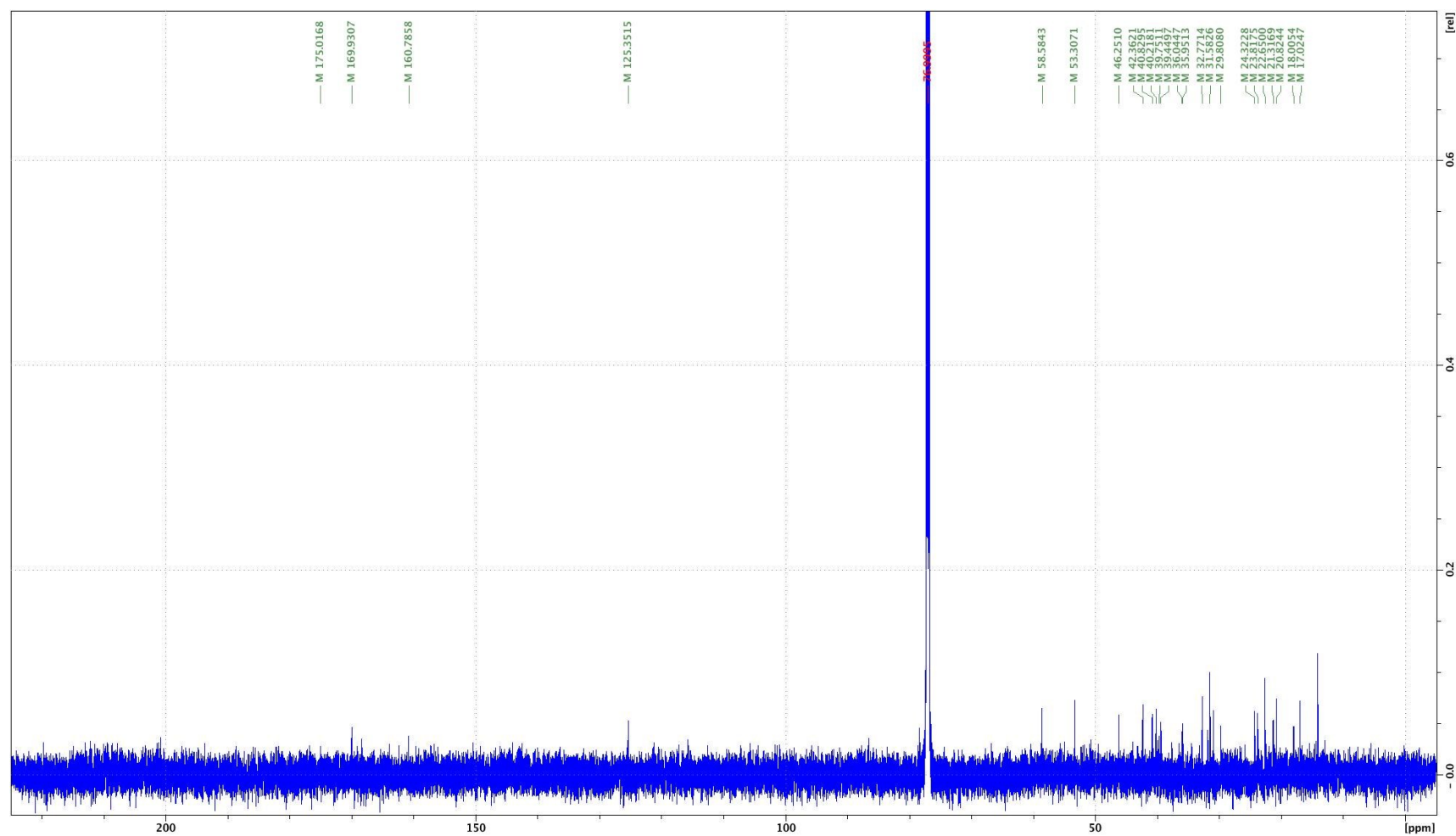
Figure S10. ^{13}C -NMR spectrum of norzoanthamide B (2).

Figure S11. COSY spectrum of norzoanthamide B (2).

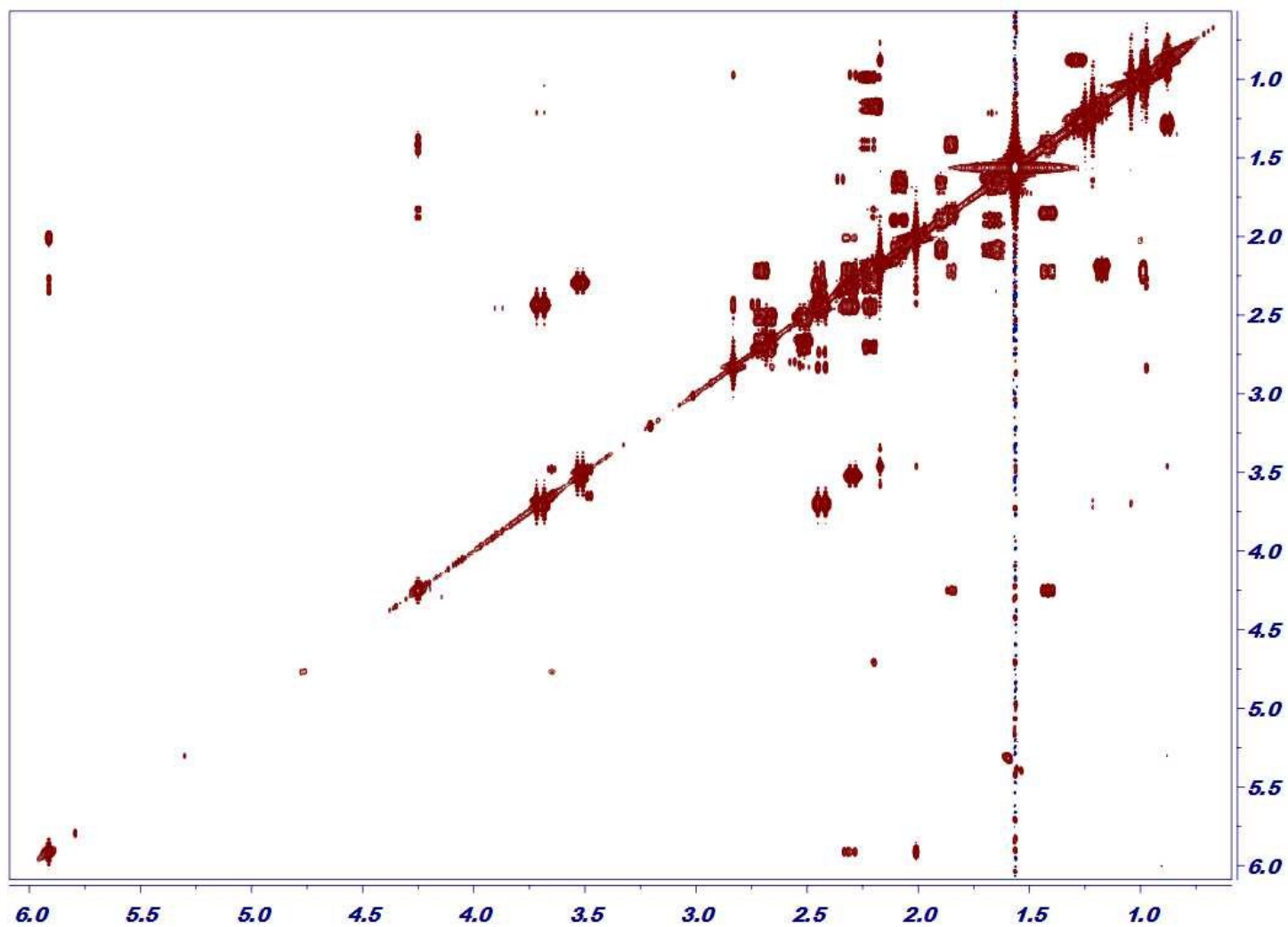


Figure S12. HSQC spectrum of norzoanthamide B (2).

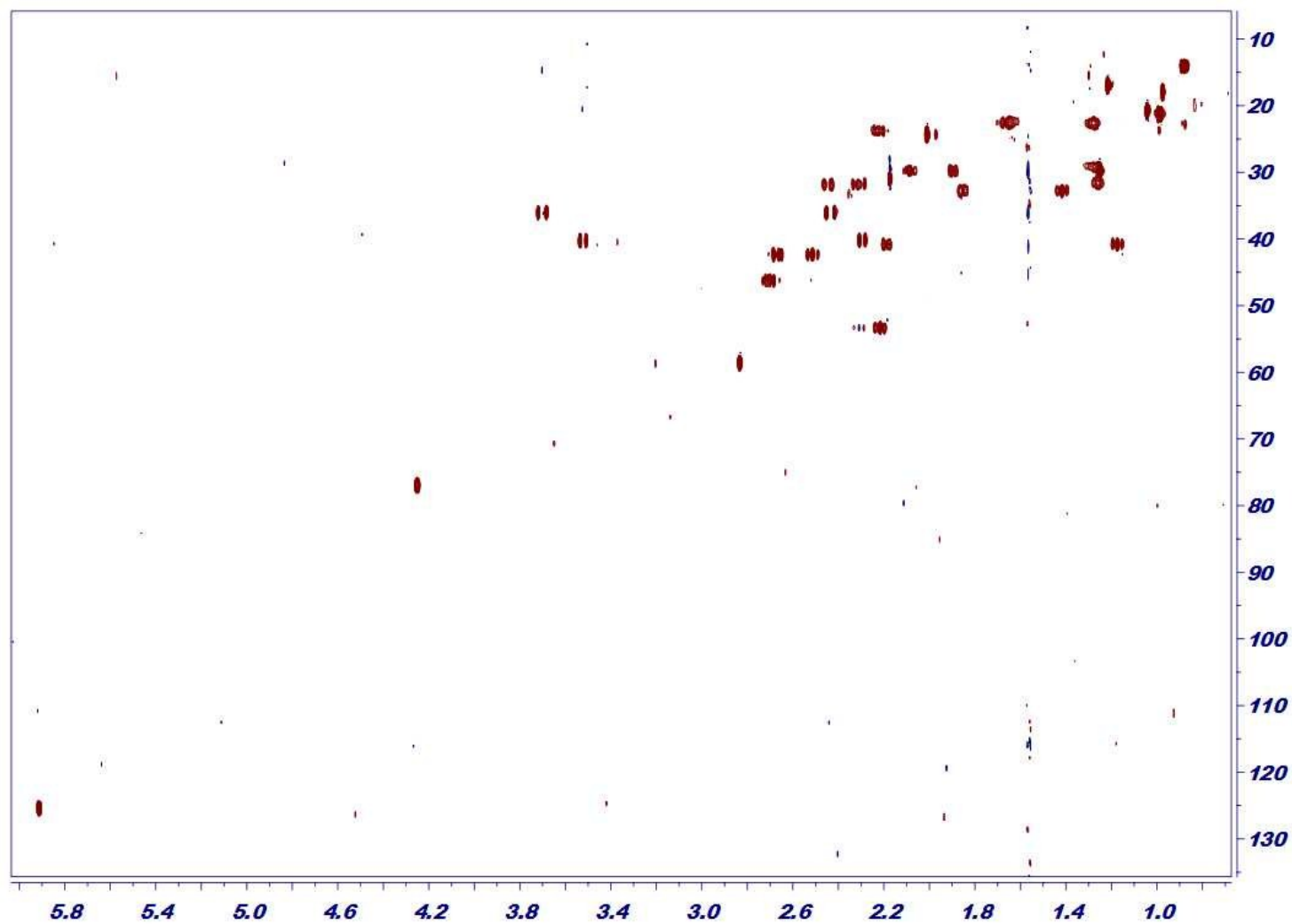


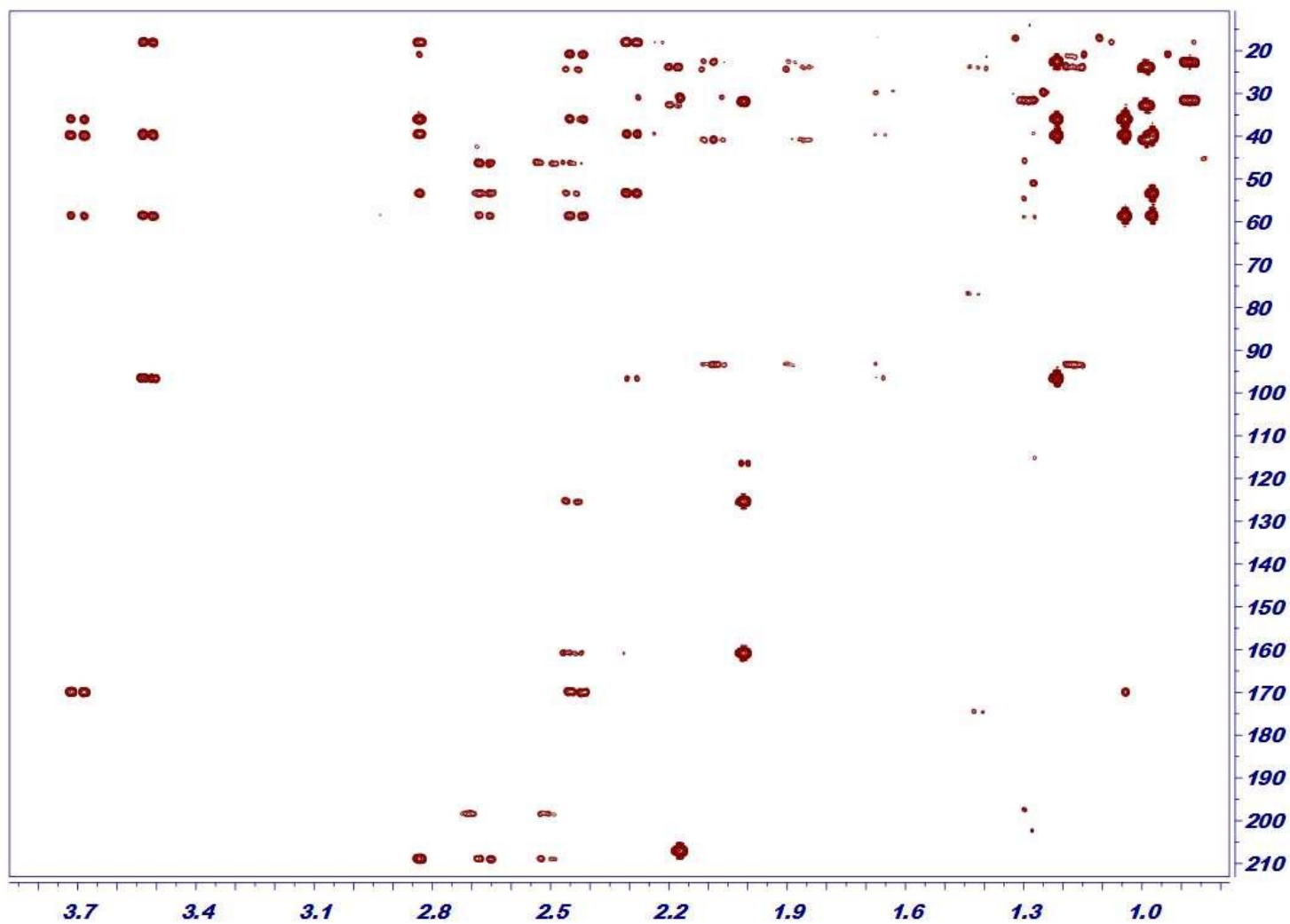
Figure S13. HMBC spectrum of norzoanthamide B (2).

Figure S14. ROESY spectrum of norzoanthamide B (2).

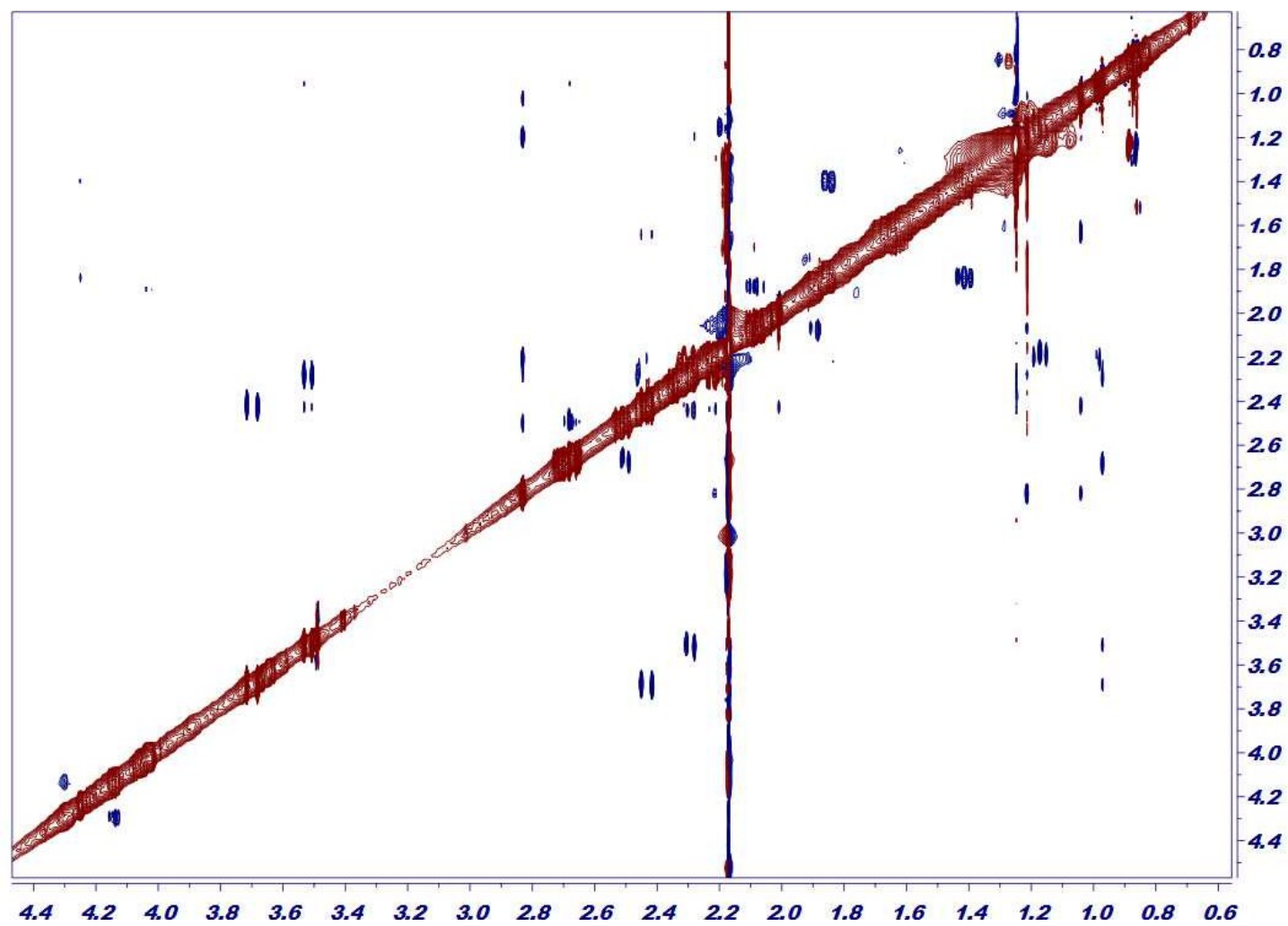


Figure S15. MS spectrum of norzoanthamide B (2).

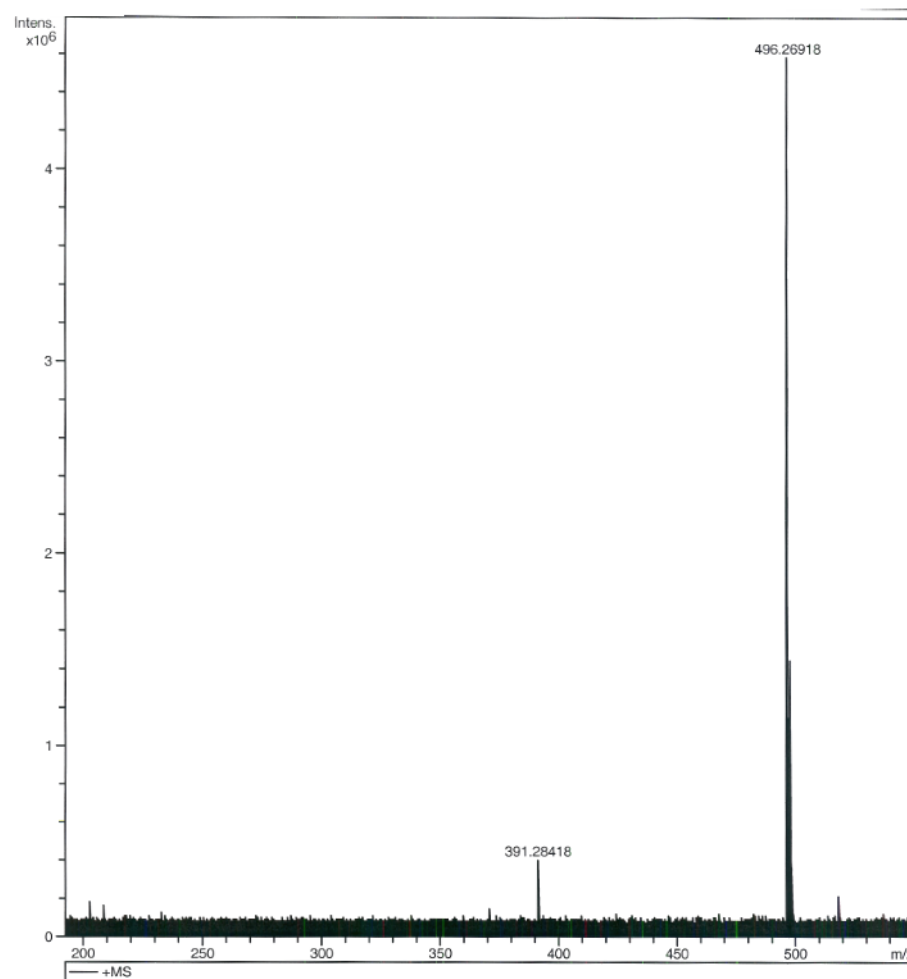


Table S3. NMR chemical shifts of 15-hydroxynorzoanthamine (**3**).

<i>n</i> °C	δ ¹³ C	δ ¹ H	Multiplicity	<i>J</i> (Hz)
1	47.1	3.23; 3.25	m; m	
2	74.2	4.55	m	
3	39.0	1.46; 1.55	m; m	
4	22.9	2.27	m	6.0; 11.1
5	44.4	1.08; 2.08	dd; dd	11.1; 14.0; 6.0; 14.0
6	89.8			
7	29.9	1.76; 1.89	m; m	
8	23.7	1.55; 1.67	m; m	
9	39.9			
10	101.9			
11	42.3	1.90; 2.13	d; d	14.0; 14.0
12	35.6			
13	51.6	2.35	m	
14	37.8	1.61; 1.87	m; dd	3.0; 13.4
15	73.6			
16	54.4	2.46; 2.54	d; d	13.8; 13.8
17	207.0			
18	50.4	2.73	m	
19	42.3	2.34; 2.73	m; m	
20	209.6			
21	59.3	2.91	s	
22	36.4			
23	36.0	2.36; 3.62	d; d	20.4; 20.4
24	172.3			
25	18.5	0.99	s	
27	31.4	1.45	s	
28	18.2	1.00	s	
29	18.5	1.17	s	
30	21.9	0.91	d	6.6

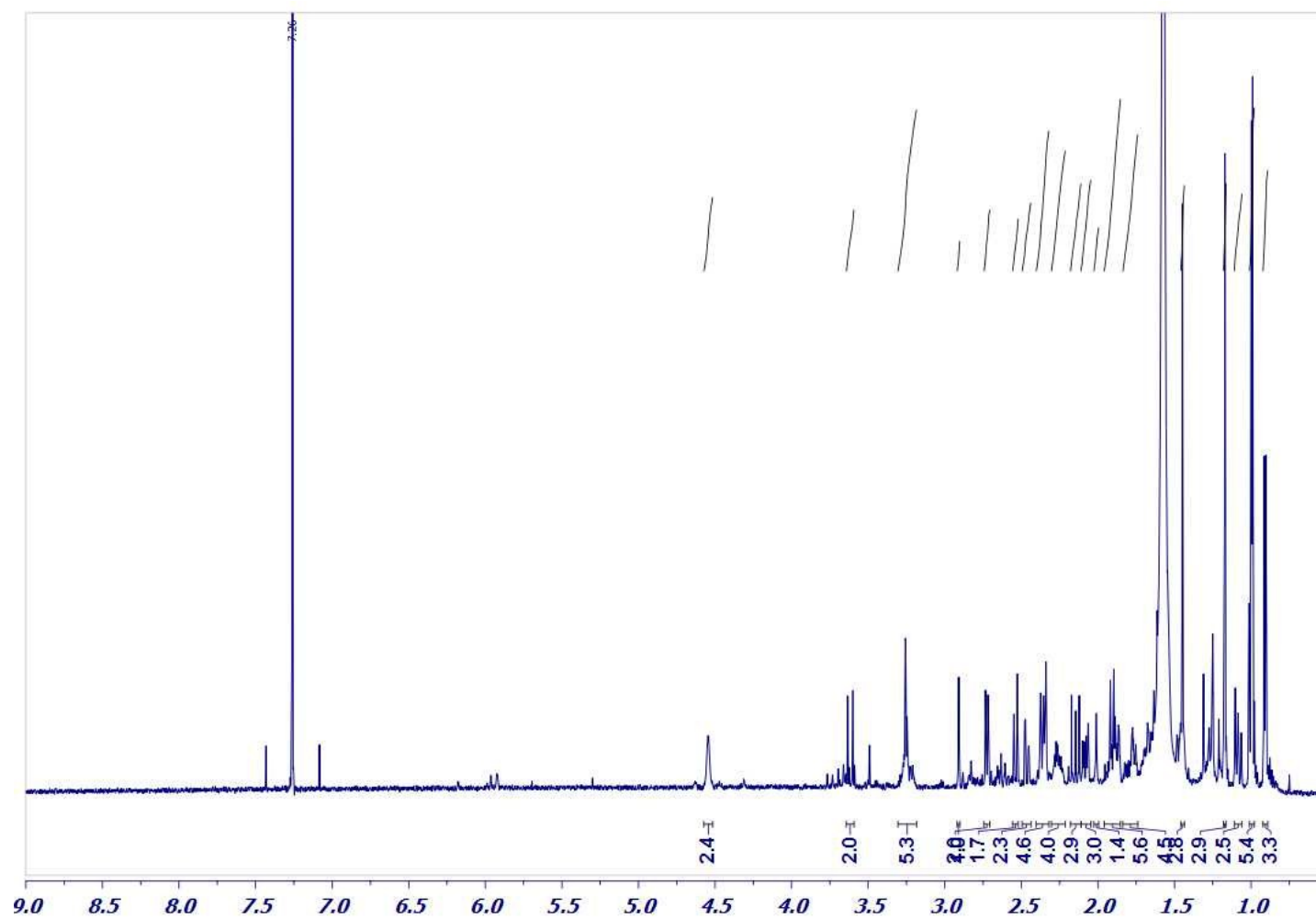
Figure S16. ^1H -NMR spectrum of 15-hydroxynorzoanthamine (**3**).

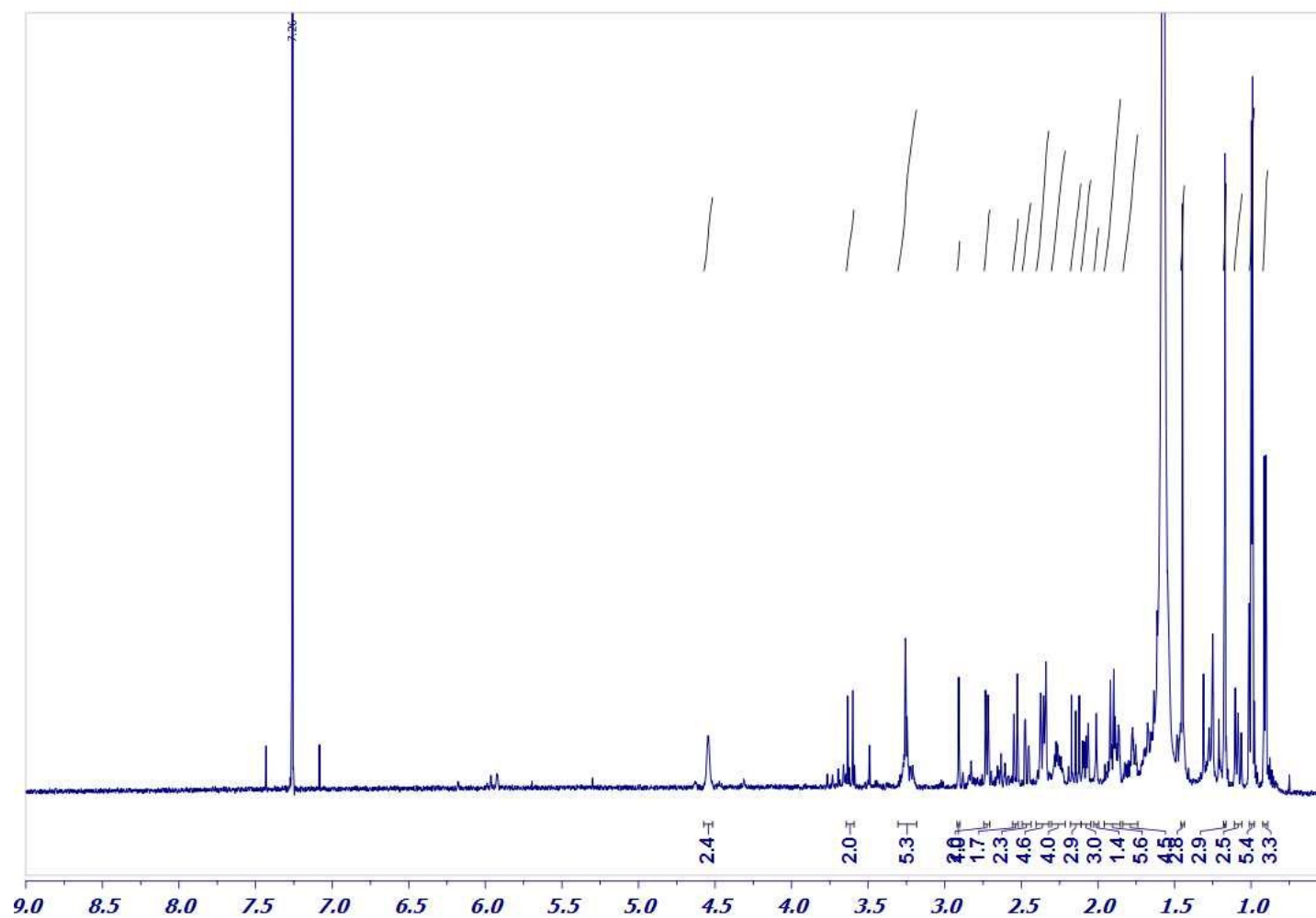
Figure S17. ^{13}C -NMR spectrum of 15-hydroxynorzoanthamine (**3**).

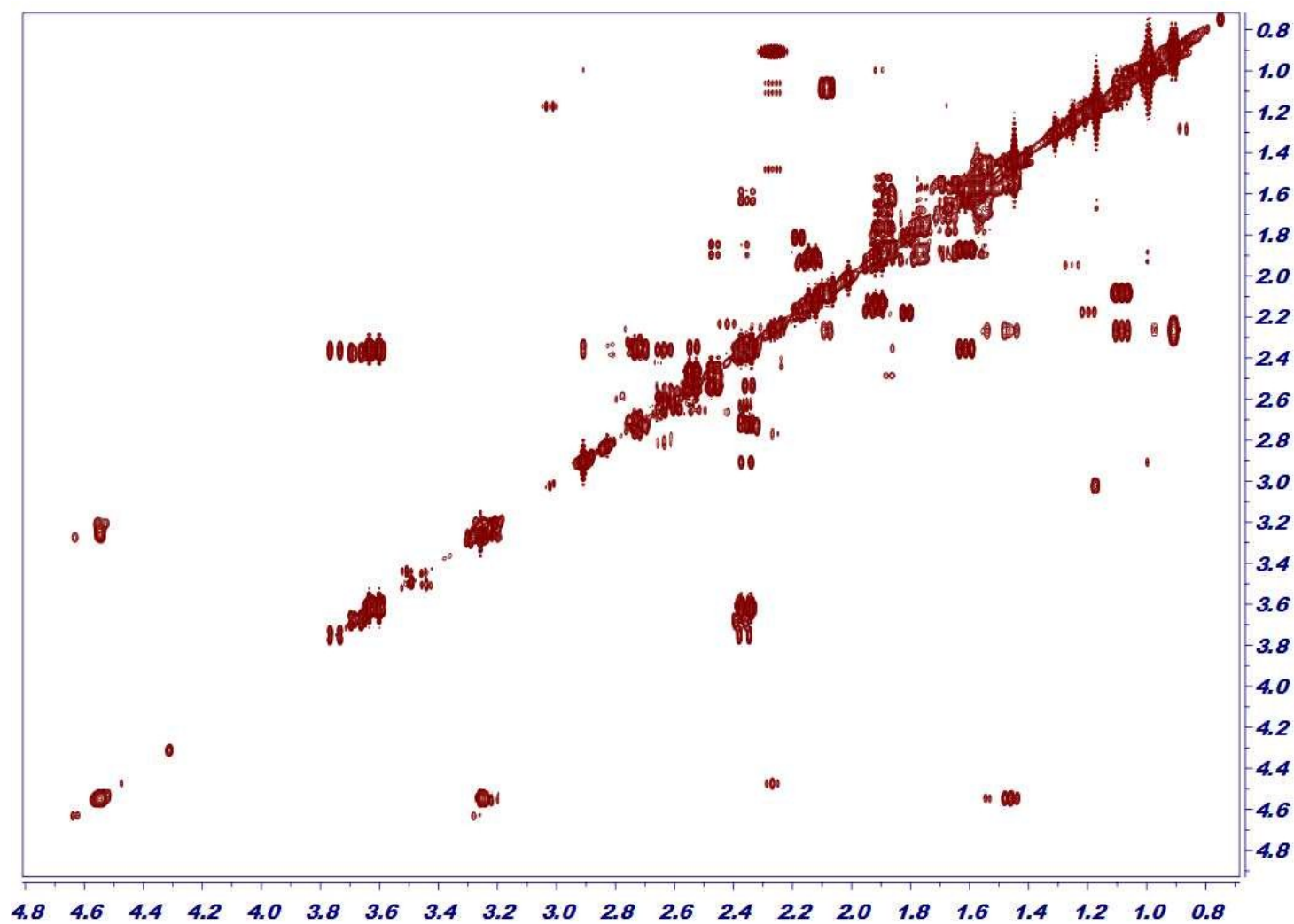
Figure S18. COSY spectrum of 15-hydroxynorzoanthamine (3).

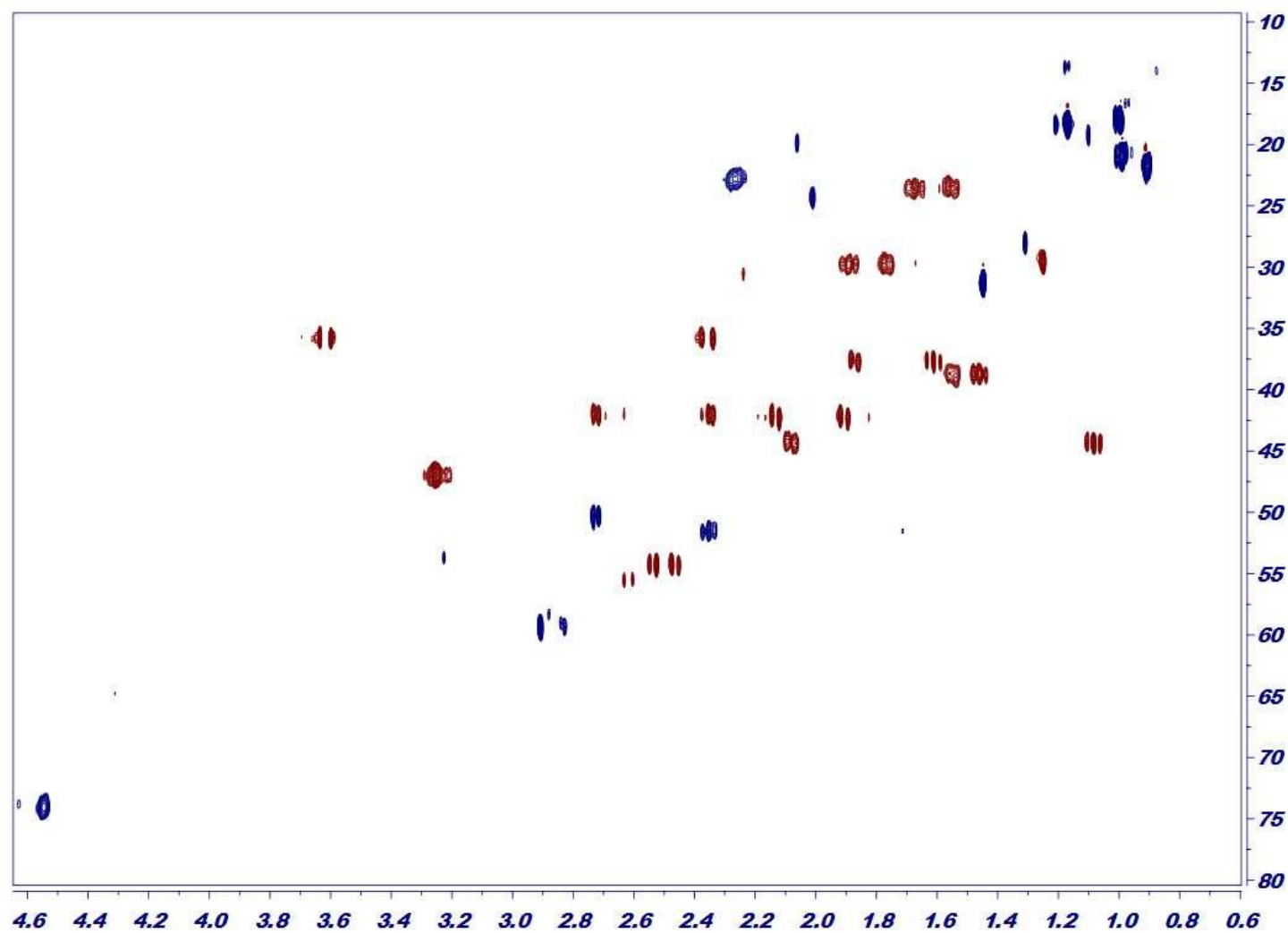
Figure S19. HSQC spectrum of 15-hydroxynorzoanthamine (3).

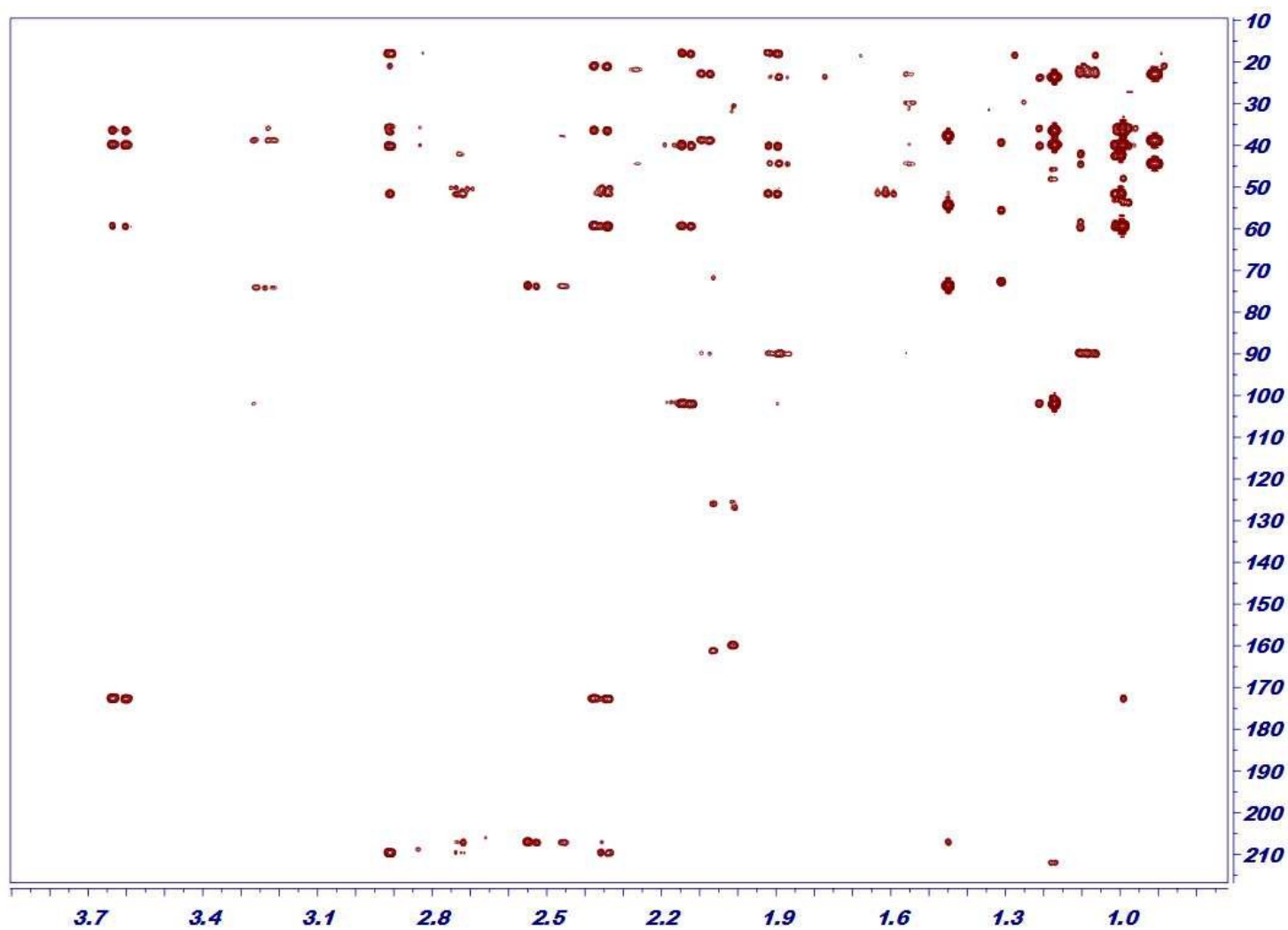
Figure S20. HMBC spectrum of 15-hydroxynorzoanthamine (3).

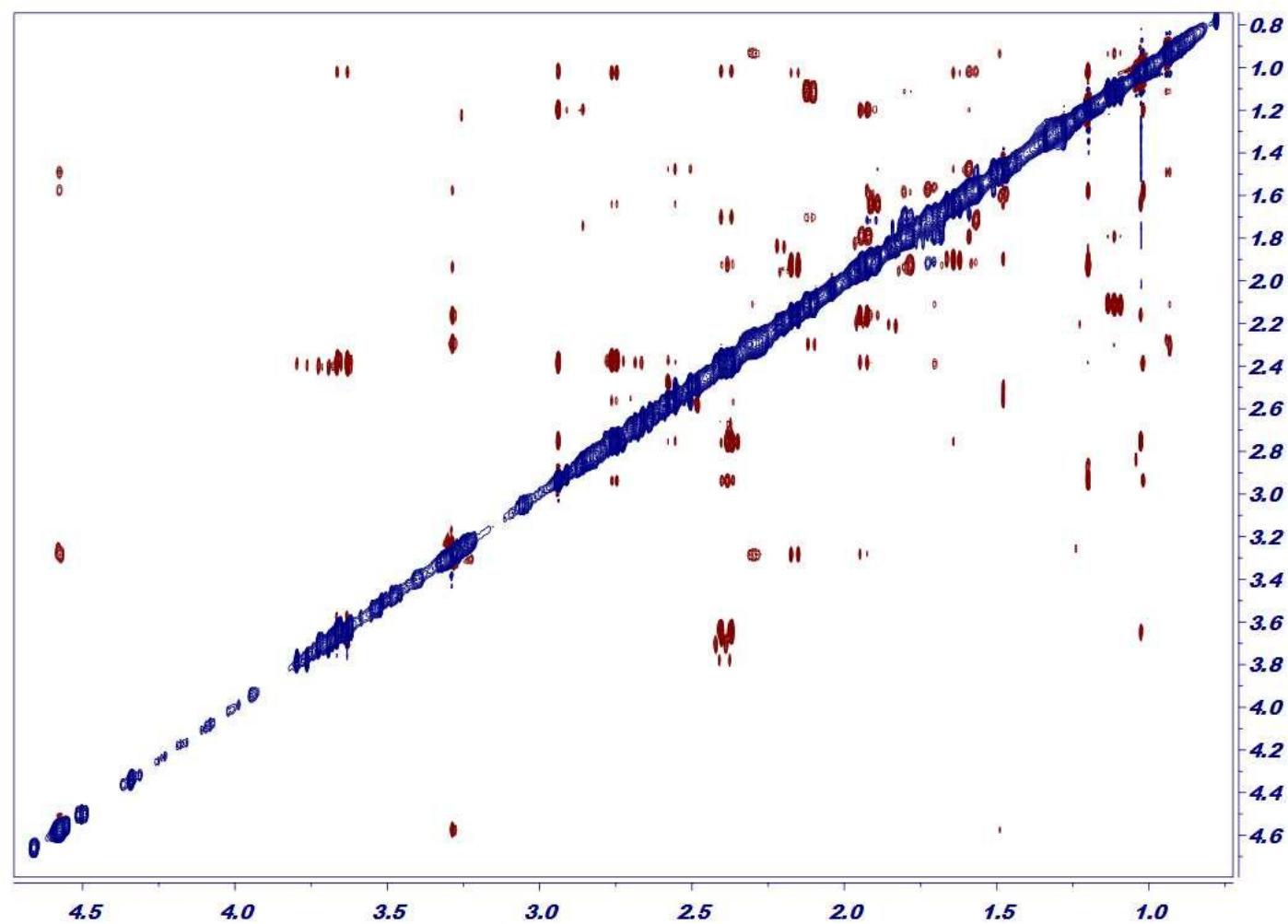
Figure S21. ROESY spectrum of 15-hydroxynorzoanthamine (3).

Figure S22. MS spectrum of 15-hydroxynorzoanthamine (**3**).