

Supporting Information

for

The marine sponge *Agelas citrina* as a source of the new pyrrole–imidazole alkaloids citrinamines A–D and *N*-methylagelongine

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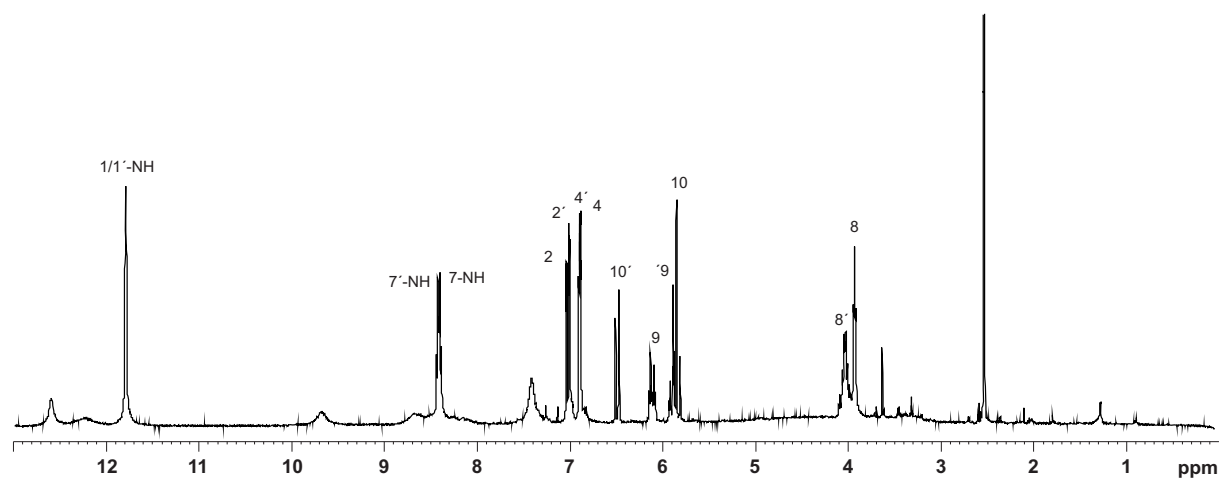
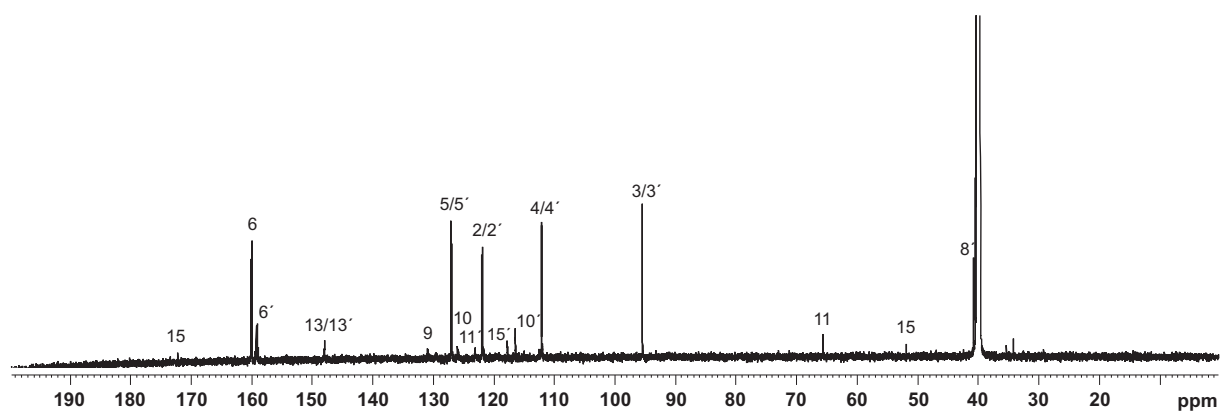
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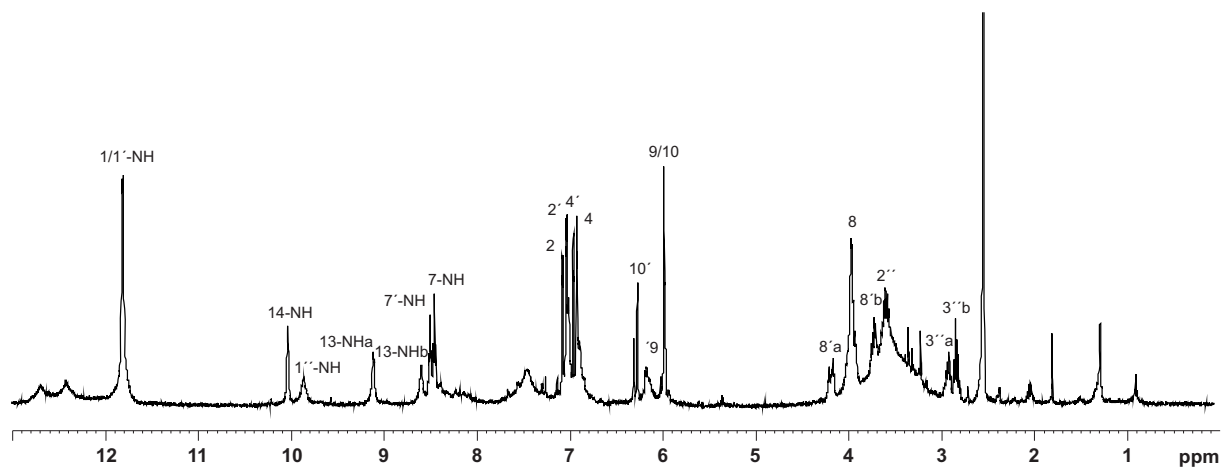
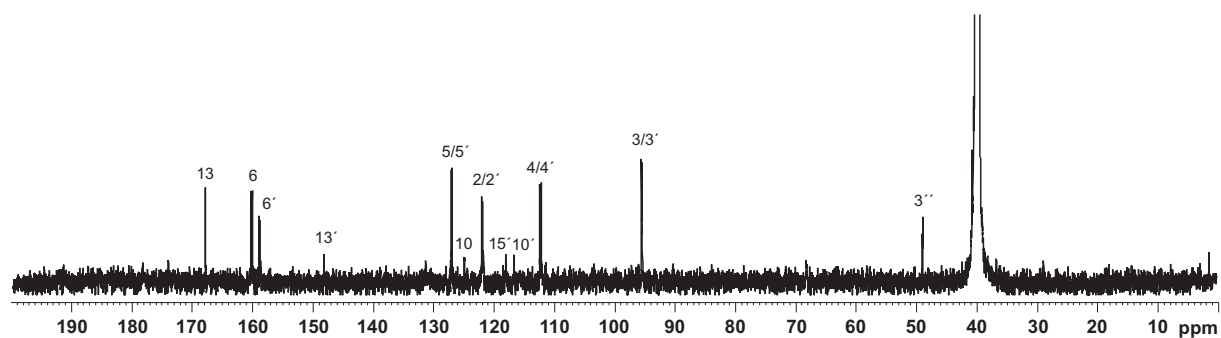
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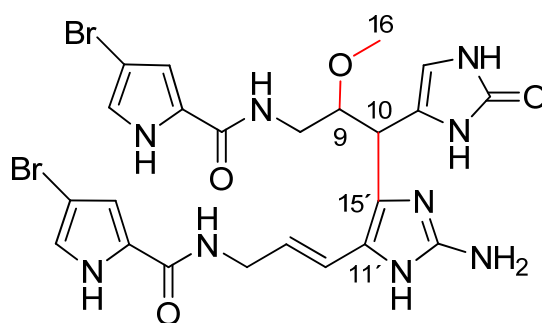
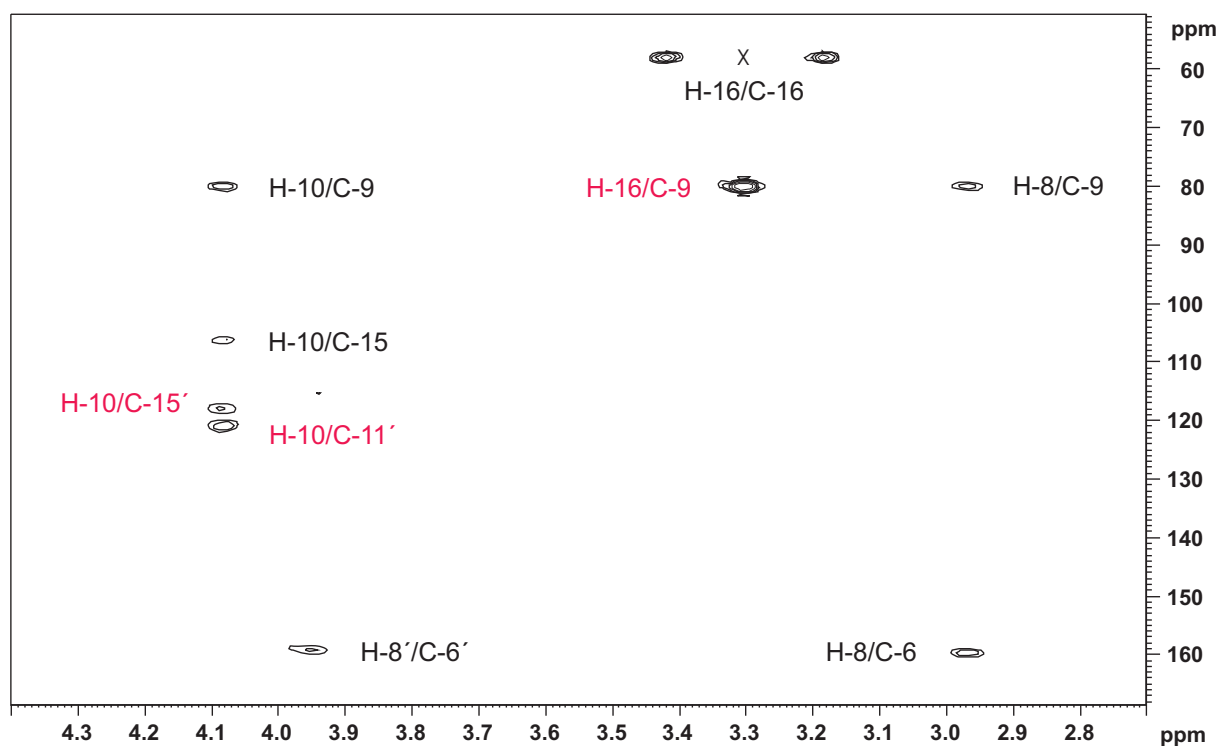
NMR data

Figure S1.	1D ^1H -NMR spectrum of citrinamine A (1) in DMSO- d_6	S2
Figure S2.	1D ^{13}C -NMR spectrum of citrinamine A (1) in DMSO- d_6	S2
Figure S3.	1D ^1H -NMR spectrum of citrinamine B (2) in DMSO- d_6	S3
Figure S4.	1D ^{13}C -NMR spectrum of citrinamine B (2) in DMSO- d_6	S3
Figure S5.	^1H , ^{13}C -HMBC and the structure of citrinamine C (3)	S4
Table S1.	^1H , ^{13}C , and ^{15}N chemical shifts of citrinamines C (3) and D (4).....	S5
Figure S6.	1D ^1H -NMR spectrum of <i>N</i> -methylagelongine (5) in DMSO- d_6	S6
Figure S7.	1D ^{13}C -NMR spectrum of <i>N</i> -methylagelongine (5) in DMSO- d_6	S6

Citrinamine A (1)**Figure S1.** 1D ¹H NMR spectrum of citrinamine A (**1**) in DMSO-*d*₆, 303 K, 400 MHz.**Figure S2.** 1D ¹³C-NMR spectrum of citrinamine A (**1**) in DMSO-*d*₆, 303 K, 850 MHz.

Citrinamine B (2)**Figure S3.** 1D ^1H -NMR spectrum of citrinamine B (**2**) in $\text{DMSO}-d_6$, 303 K, 400 MHz.**Figure S4.** 1D ^{13}C -NMR spectrum of citrinamine B (**2**) in $\text{DMSO}-d_6$, 303 K, 850 MHz.

Citrinamines C (3) and D (4)



3

Figure S5. ^1H , ^{13}C -HMBC and the structure of citrinamine C (3) (key correlations and bonds in red).

Table S1. ^1H , ^{13}C , and ^{15}N chemical shifts of citrinamines C (**3**) and D (**4**) (600 MHz, DMSO- d_6).^a

Position	citrinamine C (3)		citrinamine D (4)	
	δ_{H} , mult. (J/Hz)	$\delta_{\text{C}} / \delta_{\text{N}}$	δ_{H} , mult. (J/Hz)	$\delta_{\text{C}} / \delta_{\text{N}}$
1-NH	11.81, s	(161)	11.78, s	(161)
2	6.98, m	121.2	6.98 ^b	121.2
3	-	94.9	-	94.8
4	6.86, m	111.1	6.88 ^b	111.7
5	-	126.6	-	126.5
6	-	159.9	-	159.3
7-NH	8.22, t (5.8)	(102)	8.06, t (5.9)	(103)
8	3.45 ^b ; 2.96, m	42.2	3.26 ^b ; 3.20 ^b	41.5
9	3.72, m	80.8	3.45, m	78.1
10	4.09, d (4.8)	34.5	2.34, d (6.3)	27.2
11	-	117.6	-	120.5
12-NH	9.66, s	(127)	10.20, d (2.3); 10.00, d (2.3)	(137 / 130)
13	-	154.6	-	153.6
14-NH	9.74, s	(131)	10.20, d (2.3); 10.00, d (2.3)	(137 / 130)
15	6.38, s	106.4	-	105.5
16	3.31, s	58.5	3.18, s	56.8
1'-NH	11.81, s	(161)	11.81, s	(161)
2'	6.98, m	121.2	6.97 ^b	121.0
3'	-	94.9	-	94.8
4'	6.86, m	111.1	6.87 ^b	111.5
5'	-	126.6	-	126.5
6'	-	159.3	-	159.6
7'-NH	8.37, t (5.7)	(106)	8.37, t (5.7)	(106)
8'	3.93, m	40.8	3.95, dd (5.3)	40.0
9'	6.05, m	127.4	6.16 ^b	127.7
10'	6.35, d (16.0)	116.6	6.14 ^b	116.3
11'	-	121.3	-	121.5
12'-NH	12.48, s	(130)	-	-
13'	-	147.1	-	154.2
13'-NH ₂	-	-	-	-
14'-NH	11.79, s	(148)	-	-
15'	-	117.9	-	115.8

^a ^1H and ^{13}C chemical shifts are referenced to the DMSO- d_6 signal (2.50 ppm and 39.5 ppm, respectively). ^{15}N NMR shifts were not calibrated with an external standard. Therefore, the δ value has an accuracy of about 1 ppm in reference to NH_3 (0 ppm) and the ^{15}N NMR shifts are given without decimals.

^b No multiplicity information could be given because of overlapped signals.

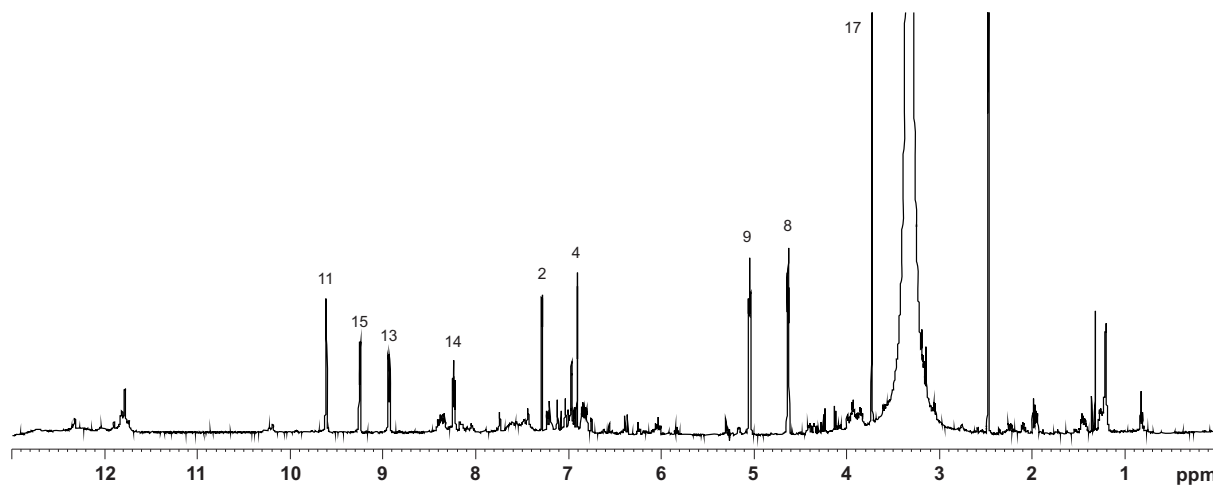
***N*-Methylagelongine (5)**

Figure S6. 1D ¹H-NMR spectrum of *N*-methylagelongine (**5**) in DMSO-*d*₆, 303 K, 600 MHz.

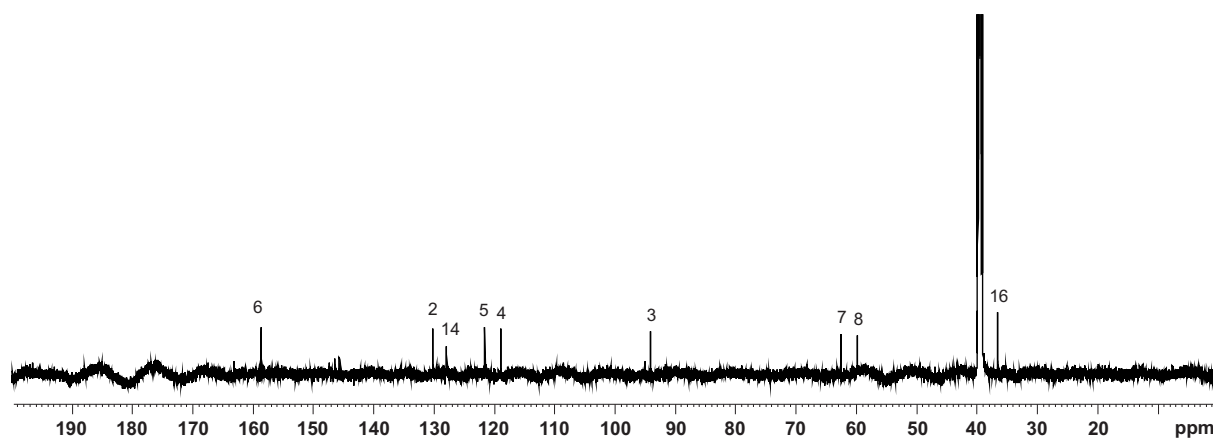


Figure S7. 1D ¹³C-NMR spectrum of *N*-methylagelongine (**5**) in DMSO-*d*₆, 303 K, 600 MHz.