

Potent Anti-bacterial Prenylated Acetophenones from the Australian Endemic Plant *Acronychia crassipetala*

Trong D. Tran,¹ Malin A. Olsson,² David J. McMillan,² Jason K. Cullen,³ Peter G. Parsons,³ Paul W. Reddell,⁴ and Steven M. Ogbourne^{1,*}

¹ GeneCology Research Centre, School of Science and Engineering, University of the Sunshine Coast, Maroochydore DC, Queensland 4558, Australia.

² School of Health and Sports Sciences, University of the Sunshine Coast, Maroochydore DC, Queensland 4558, Australia.

³ QIMR Berghofer Medical Research Institute, Locked Bag 2000, PO Royal Brisbane Hospital, Queensland 4029, Australia.

⁴ QBiotics Limited, PO Box 1, Yungaburra, Queensland 4884, Australia.

Supplementary materials

Figure S1. ¹H Spectrum of **1** in DMSO-*d*₆

Figure S2. ¹³C Spectrum of **1** in DMSO-*d*₆

Figure S3. HSQC Spectrum of **1** in DMSO-*d*₆

Figure S4. COSY Spectrum of **1** in DMSO-*d*₆

Figure S5. HMBC Spectrum of **1** in DMSO-*d*₆

Figure S6. NOESY Spectrum of **1** in DMSO-*d*₆

Figure S7. ¹H Spectrum of **2** in DMSO-*d*₆

Figure S8. ¹³C Spectrum of **2** in DMSO-*d*₆

Figure S9. HSQC Spectrum of **2** in DMSO-*d*₆

Figure S10. COSY Spectrum of **2** in DMSO-*d*₆

Figure S11. HMBC Spectrum of **2** in DMSO-*d*₆

Figure S12. NOESY Spectrum of **2** in DMSO-*d*₆

Figure S13. HRMS spectrum of **1**

Figure S14. HRMS spectrum of **2**

Table S1. Antibacterial activity towards Gram-negative bacteria of **1-2**

Figure S1. ^1H Spectrum of **1** in $\text{DMSO-}d_6$

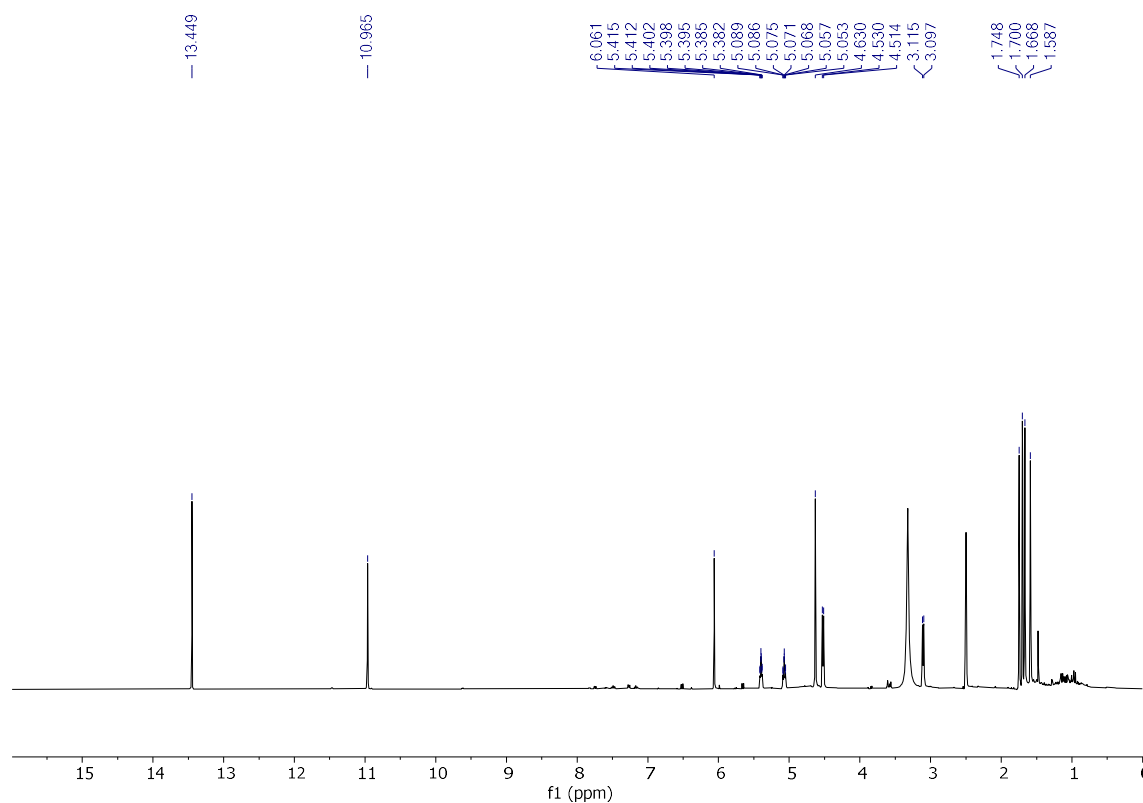


Figure S2. ^{13}C Spectrum of **1** in $\text{DMSO-}d_6$

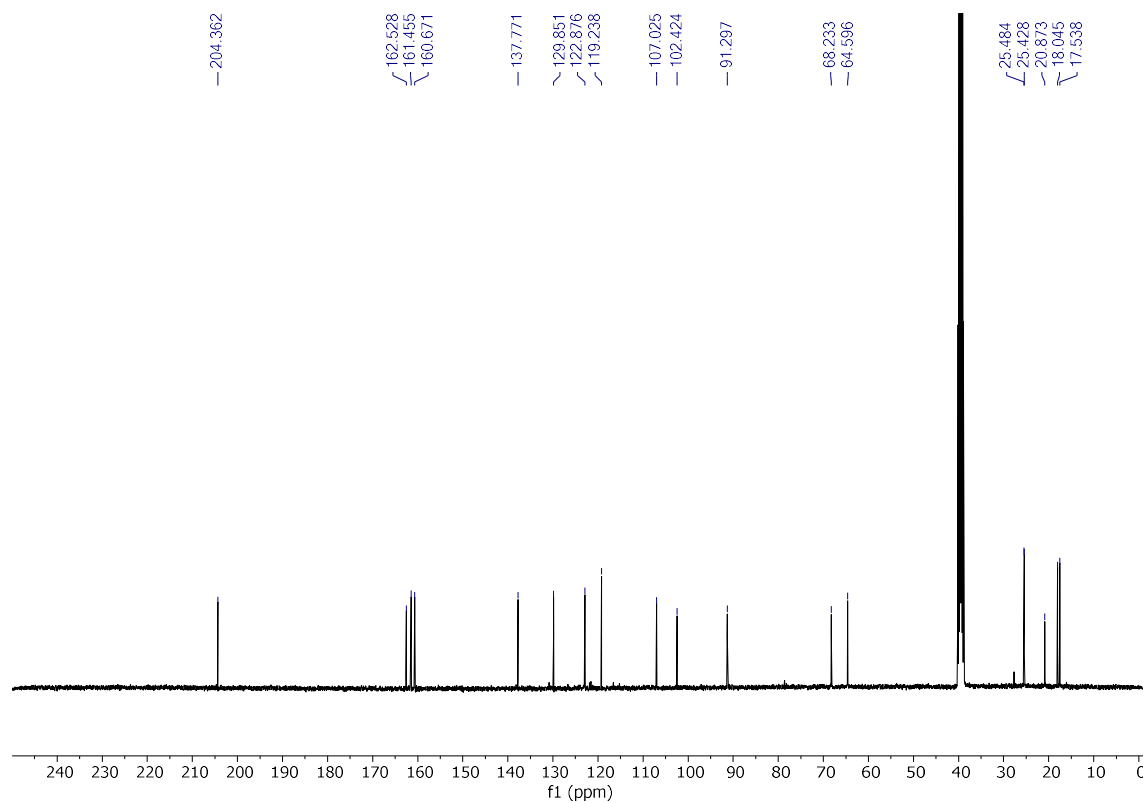


Figure S3. HSQC Spectrum of **1** in DMSO- d_6

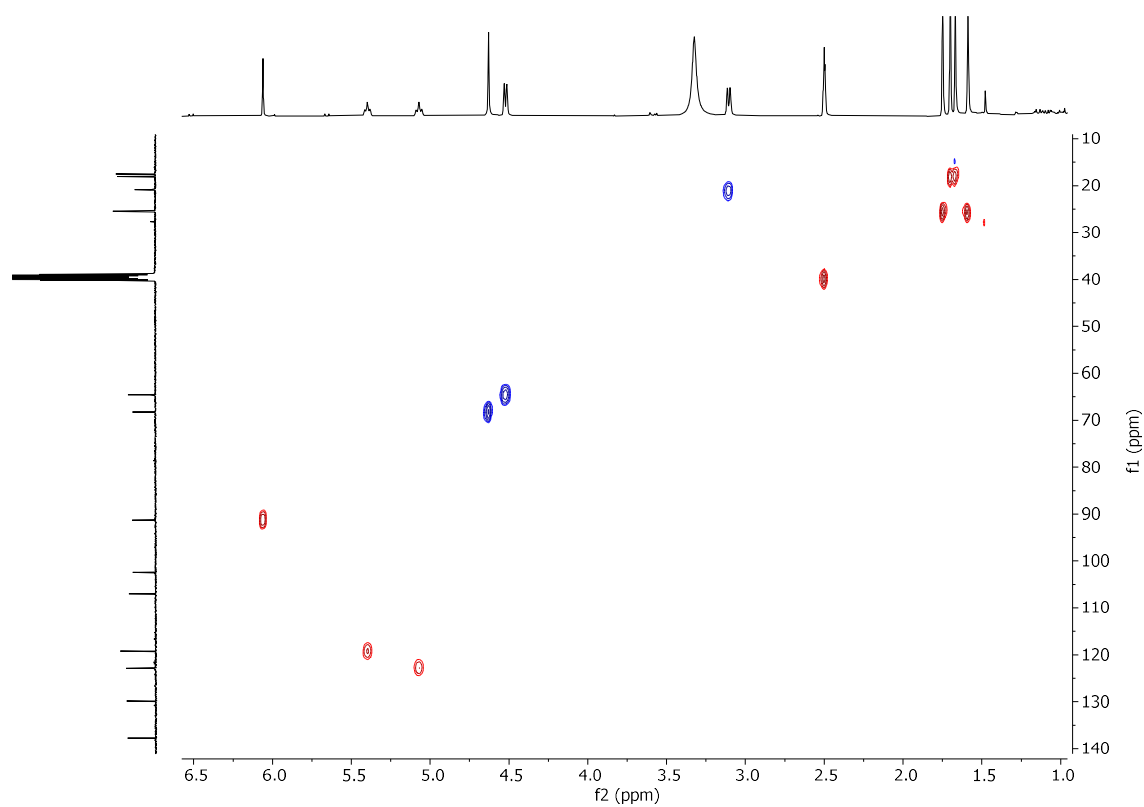


Figure S4. COSY Spectrum of **1** in DMSO- d_6

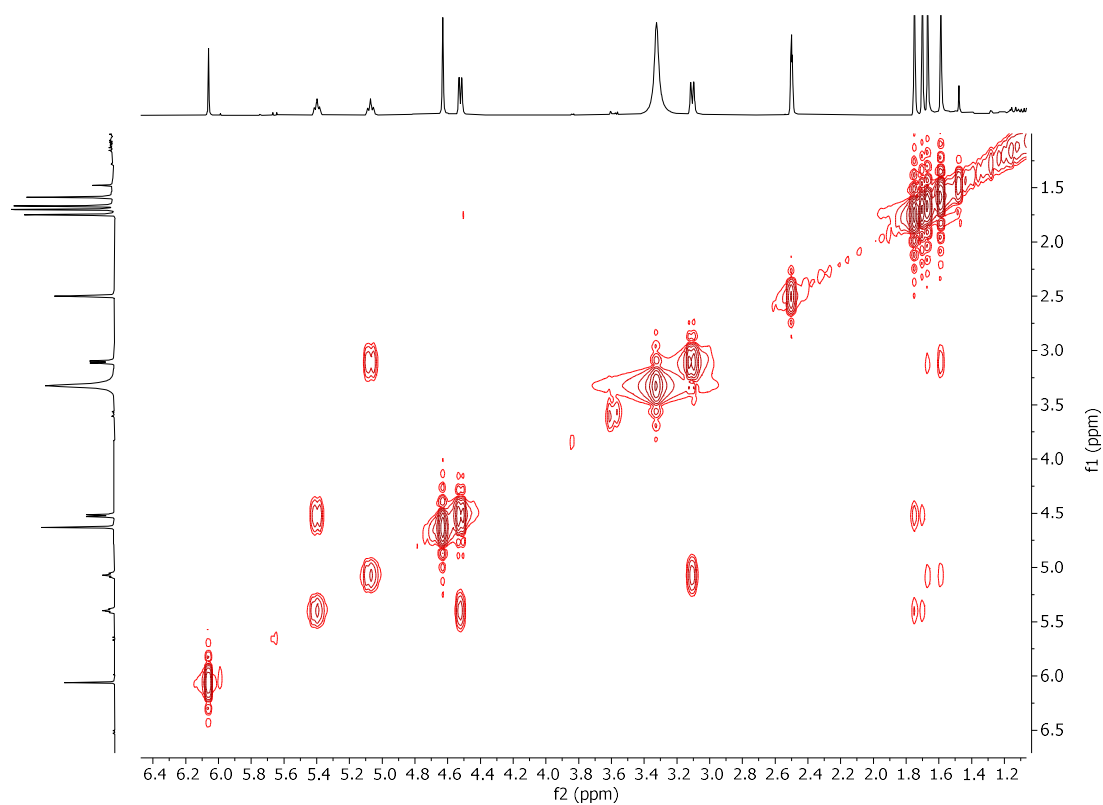


Figure S5. HMBC Spectrum of **1** in DMSO- d_6

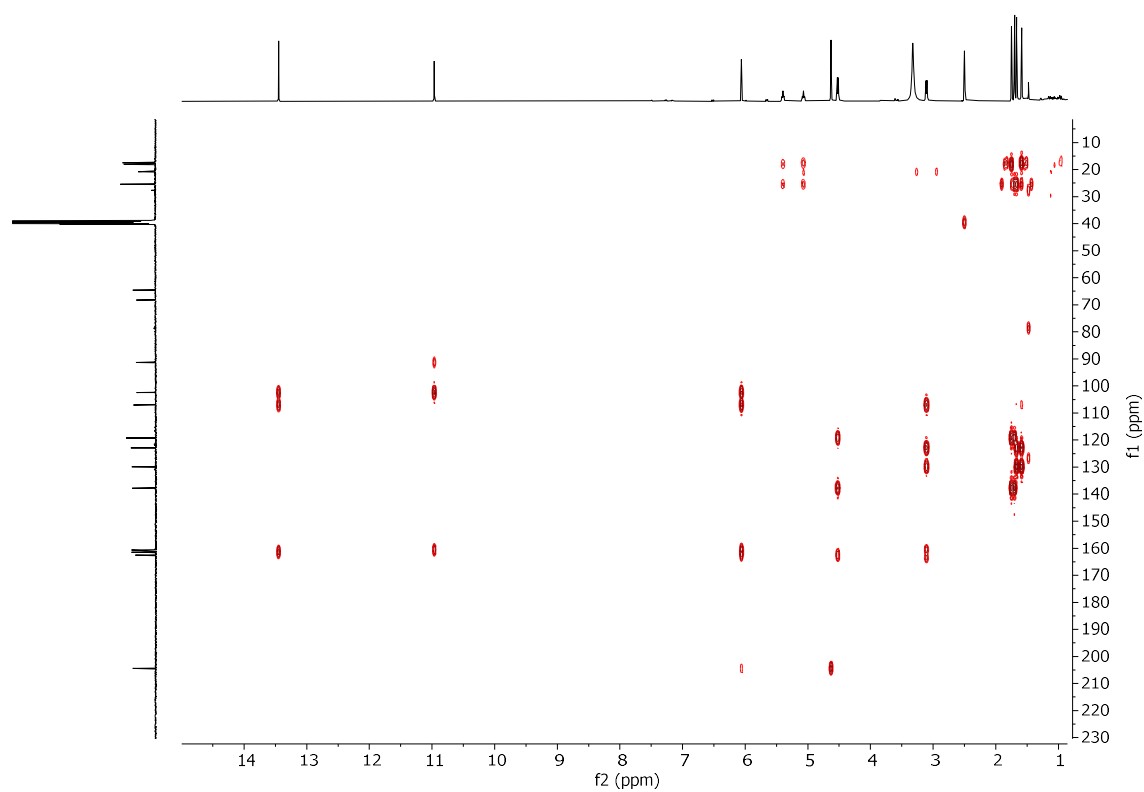


Figure S6. NOESY Spectrum of **1** in DMSO- d_6

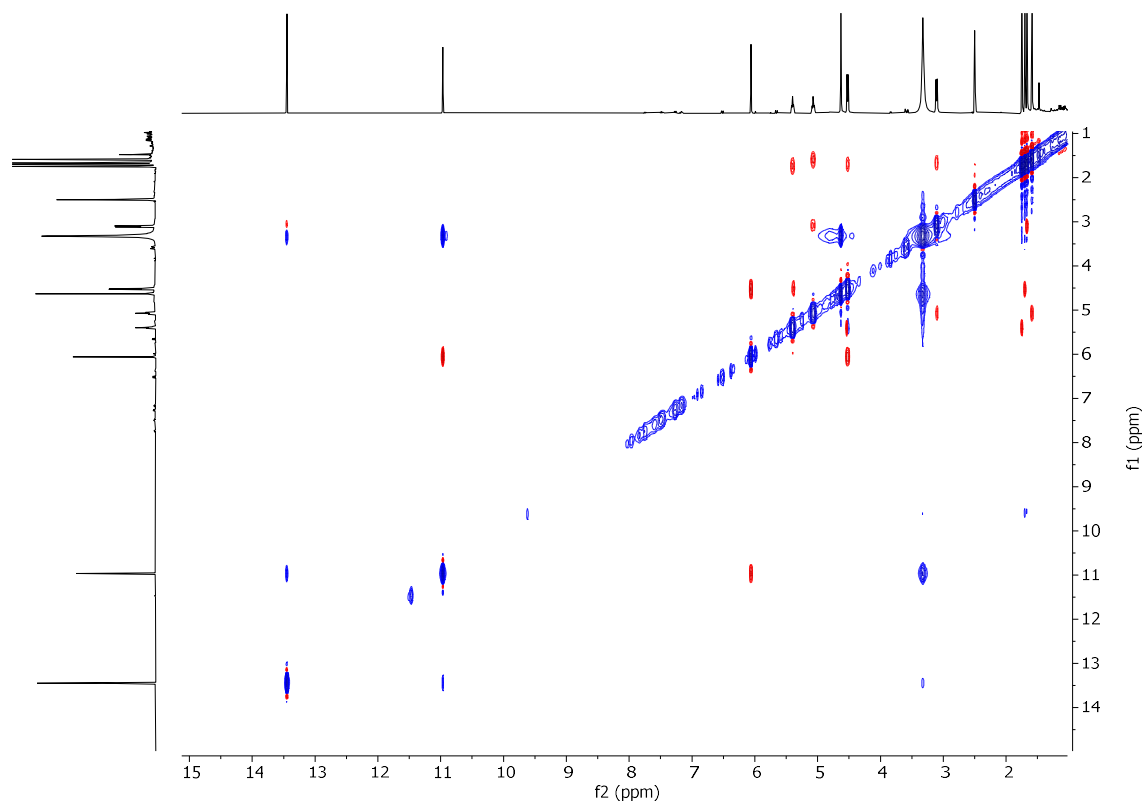


Figure S7. ^1H Spectrum of **2** in $\text{DMSO-}d_6$

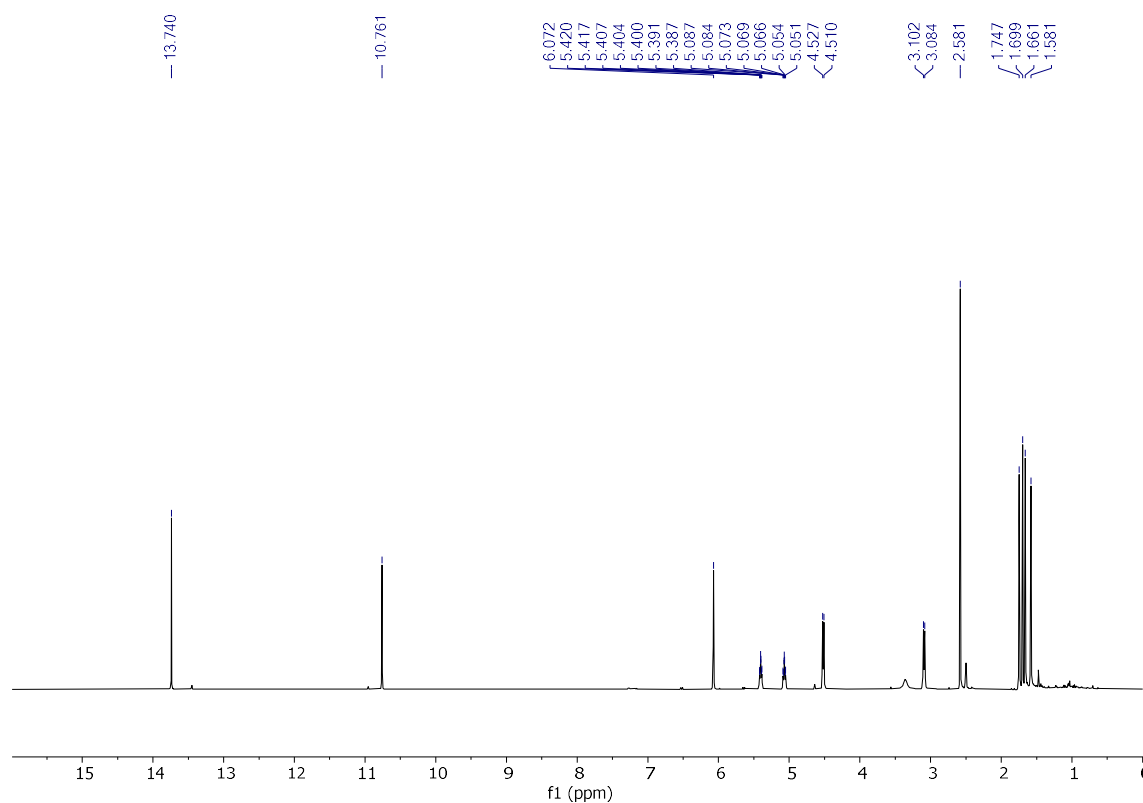


Figure S8. ^{13}C Spectrum of **2** in $\text{DMSO-}d_6$

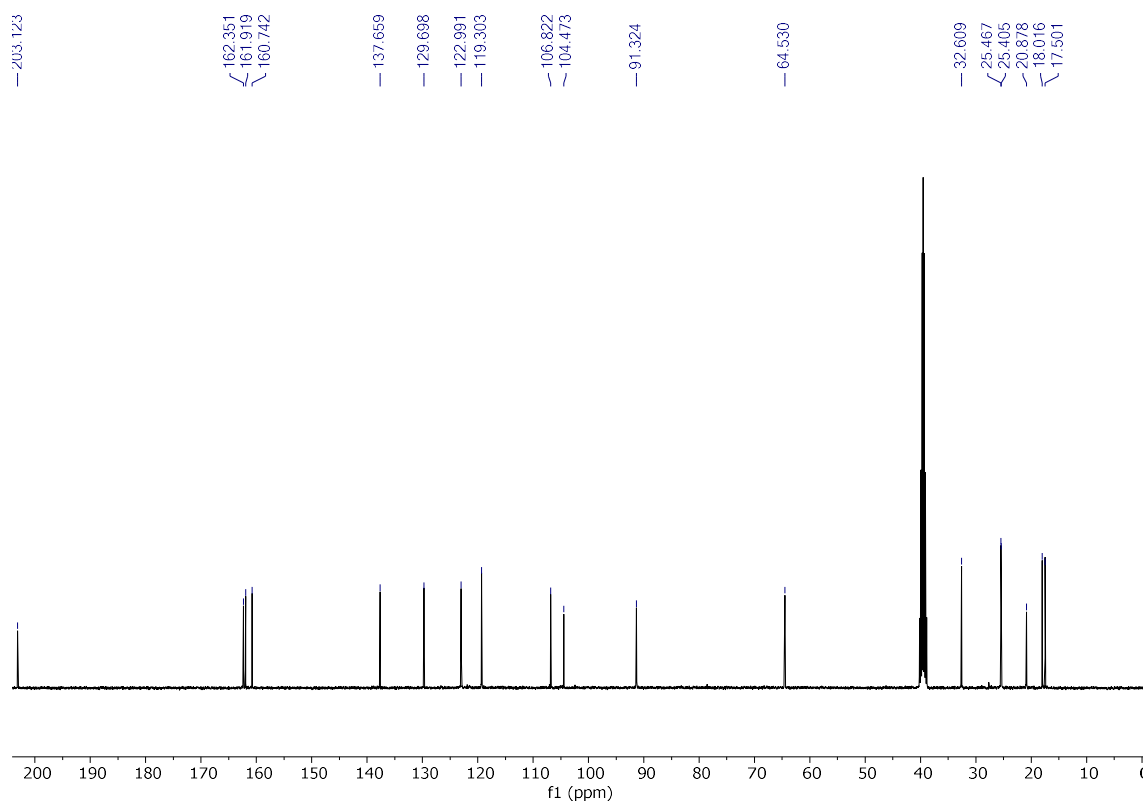


Figure S9. HSQC Spectrum of **2** in DMSO- d_6

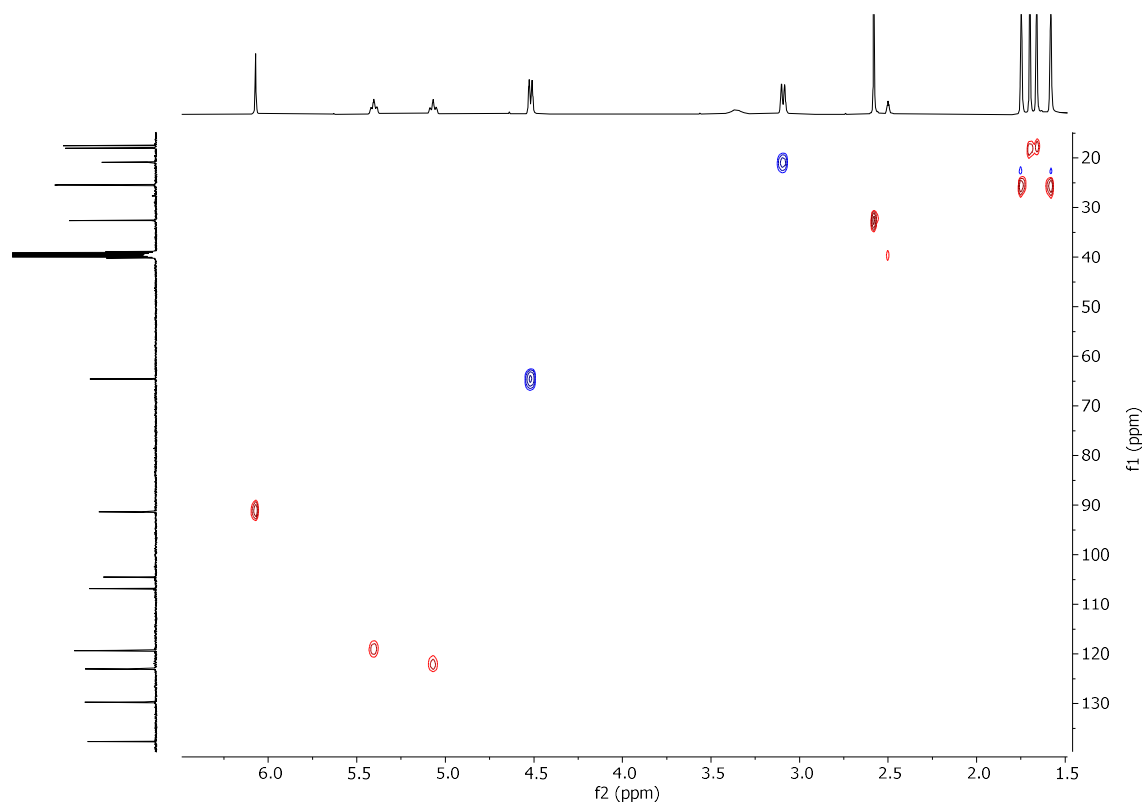


Figure S10. COSY Spectrum of **2** in DMSO- d_6

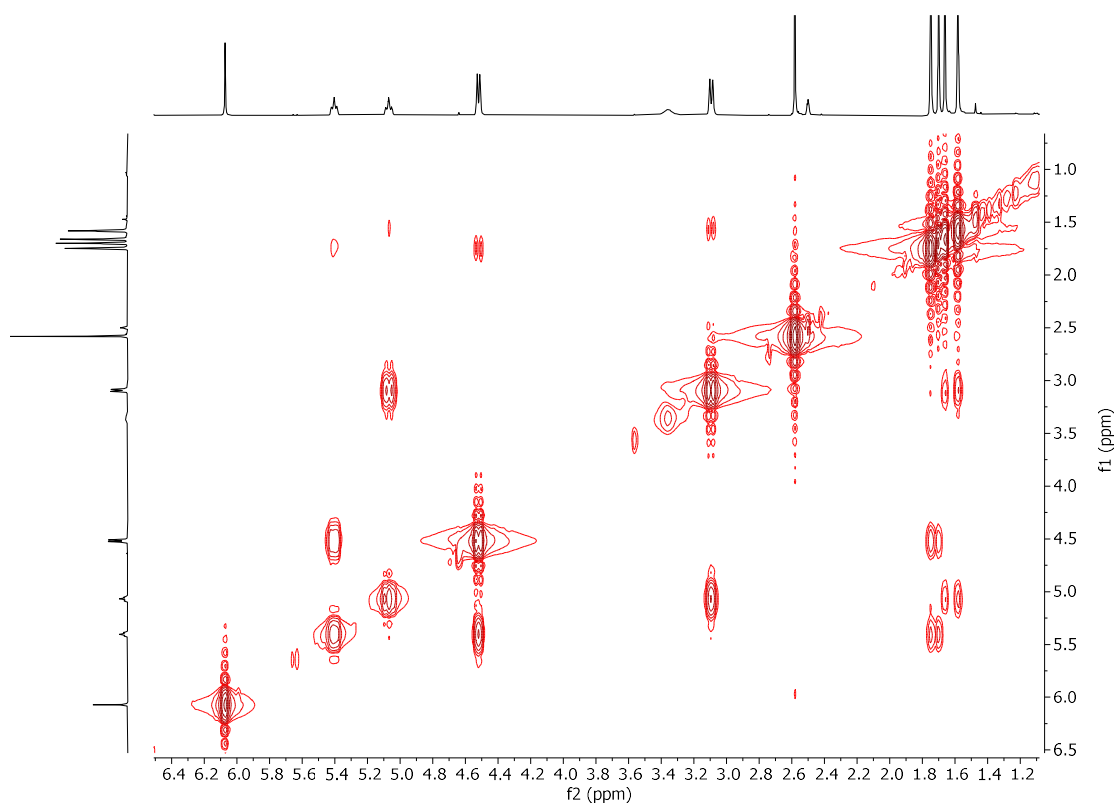


Figure S11. HMBC Spectrum of **2** in DMSO- d_6

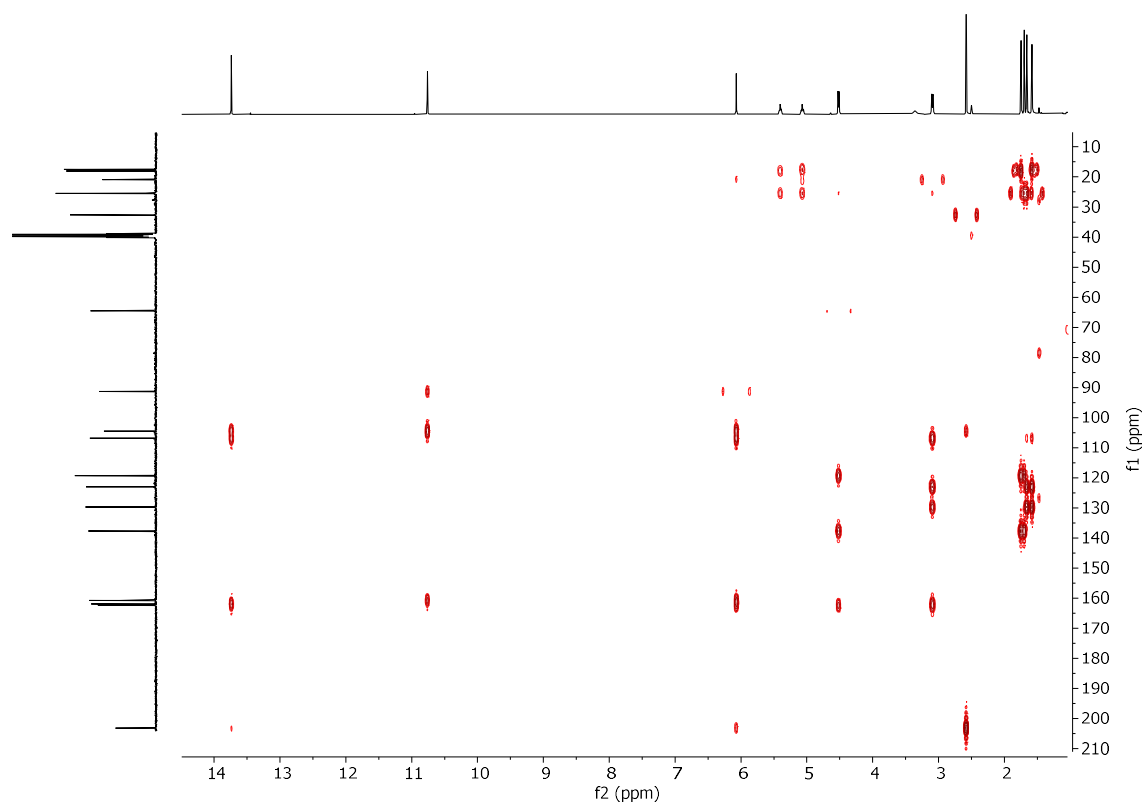


Figure S12. NOESY Spectrum of **2** in DMSO- d_6

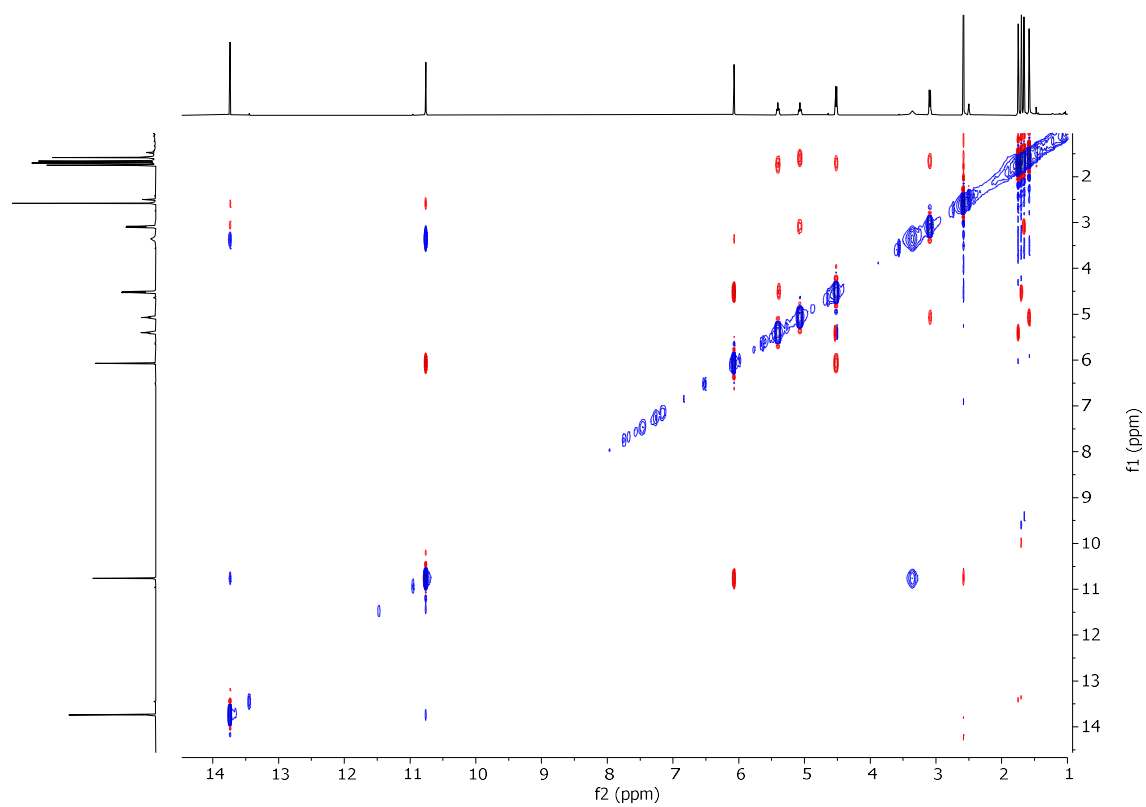


Figure S13. HRMS spectrum of **1**

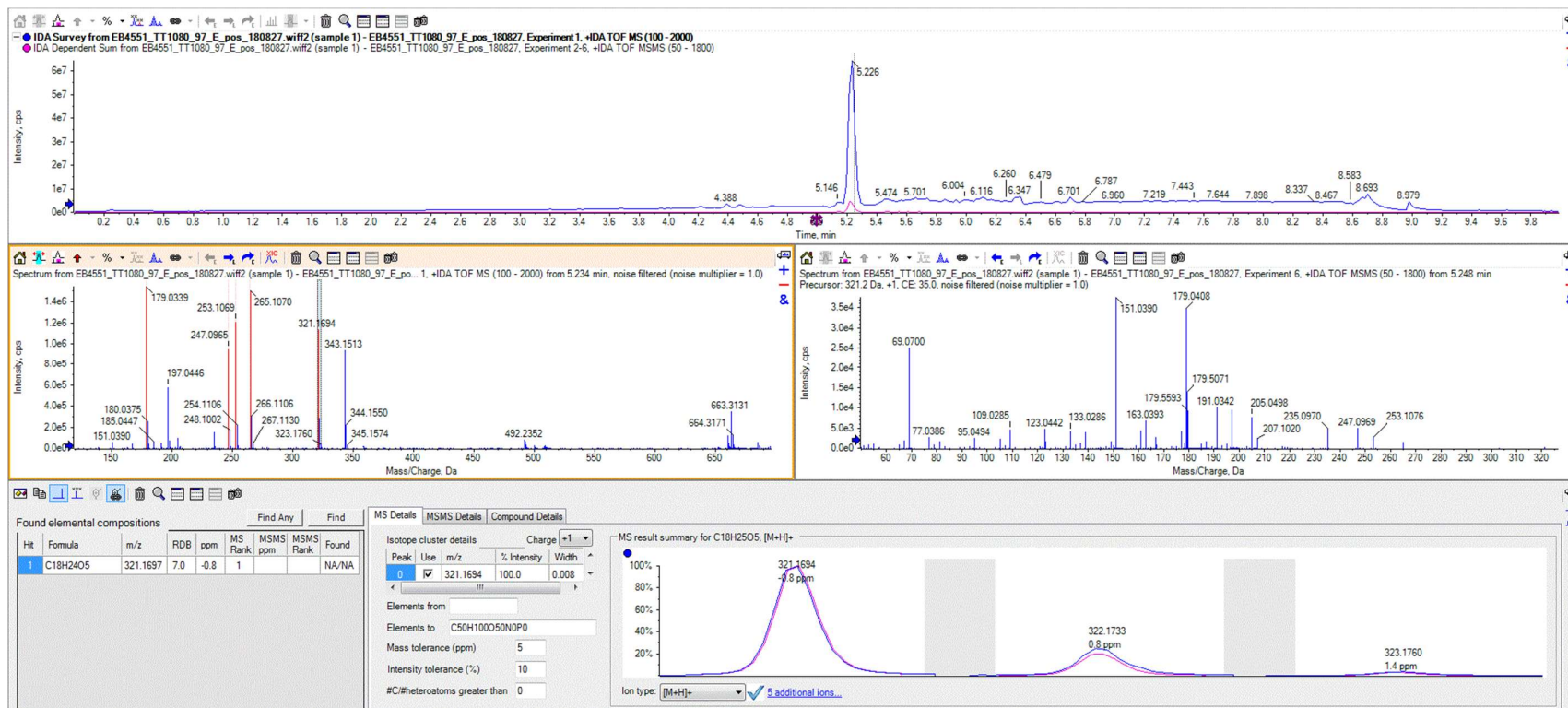


Figure S14. HRMS spectrum of **2**

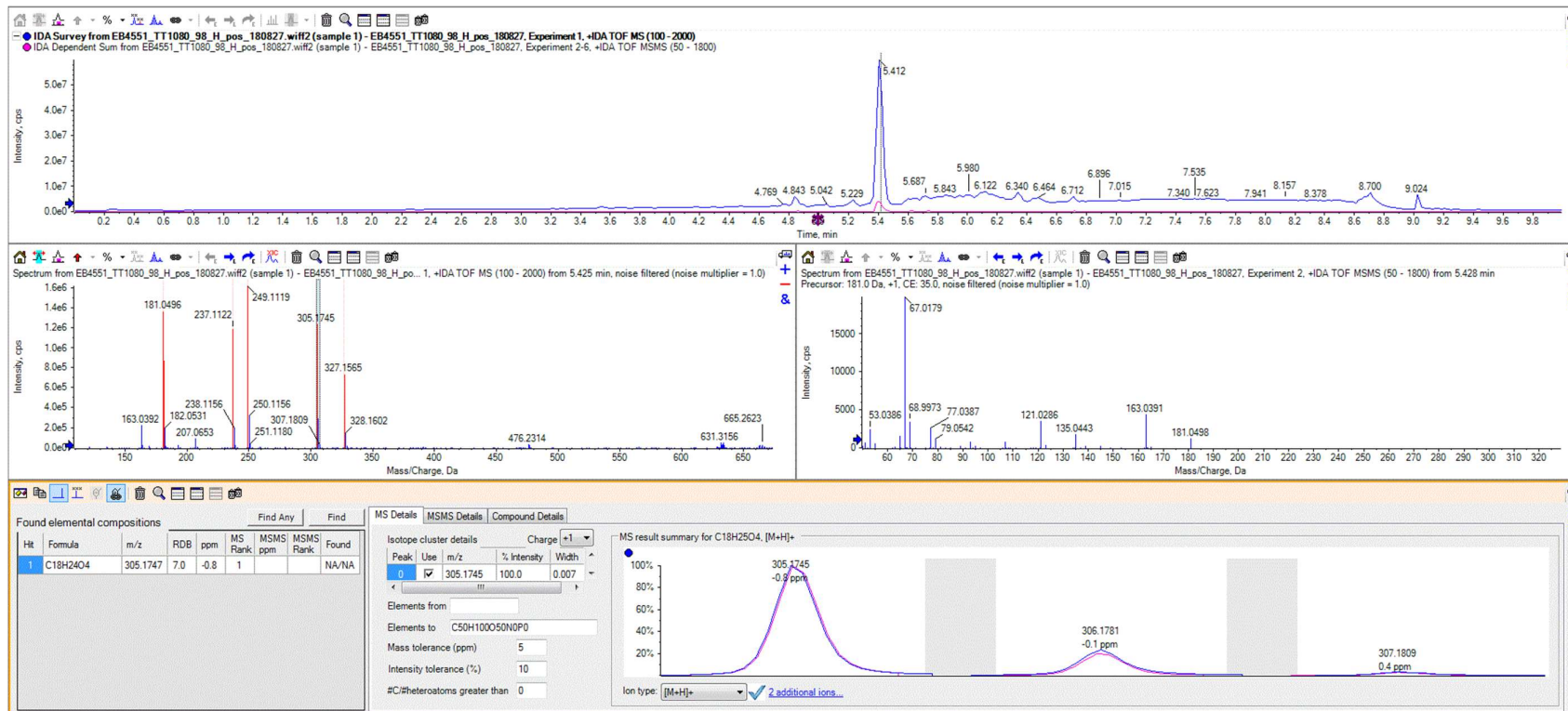


Table S1. Antibacterial activity towards Gram-negative bacteria of **1-2***

	MIC ₇₅ (µg/ml)							
	<i>K. pneumoniae</i> 13883	<i>K. pneumoniae</i> 12657	<i>A. baumannii</i> 19606	<i>A. baumannii</i> 17978	<i>P. aeruginosa</i> 10145	<i>P. aeruginosa</i> 49189	<i>E. aerogenes</i> 13048	<i>E. cloacae</i> 13047
1	<i>na</i>	<i>na</i>	<i>na</i>	<i>na</i>	<i>na</i>	<i>na</i>	<i>na</i>	<i>na</i>
2	<i>na</i>	<i>na</i>	<i>na</i>	<i>na</i>	<i>na</i>	<i>na</i>	<i>na</i>	<i>na</i>
Chloramphenicol	0.7813	1.5625	25	12.5	-	-	1.5625	1.5625
Kanamycin	-	-	-	-	12.5	25	-	-

* MIC₇₅ (µg/ml) were tested in three independent experiments with triplicate determinations for each concentration.

na: Not active at the maximum tested concentration (50 µg/ml)