

Supporting Information

Bromopyrrole alkaloids from the sponge *Agelas kosrae*

Oh-Seok Kwon ¹, Donghwa Kim ¹, Heegyu Kim ², Yeon-Ju Lee ³, Hyi-Seung Lee ³, Chung J. Sim ⁴, Dong-Chan Oh ¹, Sang Kook Lee ¹, Ki-Bong Oh ^{2,*}, and Jongheon Shin ^{1,*}

¹ Natural Products Research Institute, College of Pharmacy, Seoul National University, San 56-1, Sillim, Gwanak, Seoul 151-742, Korea; ideally225@snu.ac.kr (O.-S. K.); kdh9298@gmail.com (D. K.); dongchanoh@snu.ac.kr (D.-C. O.); sklee61@snu.ac.kr (S.K.L.); shinj@snu.ac.kr (J. S.)

² Department of Agricultural Biotechnology, College of Agriculture and Life Science, Seoul National University, San 56-1, Sillim, Gwanak, Seoul 151-921, Korea; hqhqeori@snu.ac.kr (H. K.); ohkibong@snu.ac.kr (K.-B. O.)

³ Marine Natural Products Laboratory, Korea Institute of Ocean Science & Technology, P.O. Box 29, Seoul 425-600, Korea; yjlee@kiost.ac.kr (Y.-J. L.); hslee@kiost.ac.kr (H.-S. L.)

⁴ Department of Biological Science, College of Life Science and Nano Technology, Hannam University, 461-6 Jeonmin, Yuseong, Daejeon 305-811, Korea; cjs@hnu.kr (C. J. S.)

* Correspondence: shinj@snu.ac.kr (J. S.); ohkibong@snu.ac.kr (K.-B. O.); Tel.: +82-2-880-2484 (J. S.); +82-2-880-4646 (K.-B. O.)

Figure S1. The ^1H NMR (600 MHz, DMSO- d_6) spectrum of 1	S3
Figure S2. The ^{13}C NMR (150 MHz, DMSO- d_6) spectrum of 1	S4
Figure S3. The COSY (600 MHz, DMSO- d_6) spectrum of 1	S5
Figure S3. The TOCSY (600 MHz, DMSO- d_6) spectrum of 1	S6
Figure S4. The eHSQC (600 MHz, DMSO- d_6) spectrum of 1	S7
Figure S5. The HMBC (600 MHz, DMSO- d_6) spectrum of 1	S8
Figure S6. The ROESY (600 MHz, DMSO- d_6) spectrum of 1	S9
Figure S7. The ^1H NMR (600 MHz, DMSO- d_6) spectrum of 2	S10
Figure S8. The ^{13}C NMR (150 MHz, DMSO- d_6) spectrum of 2	S11
Figure S9. The COSY (600 MHz, DMSO- d_6) spectrum of 2	S12
Figure S10. The eHSQC (600 MHz, DMSO- d_6) spectrum of 2	S13
Figure S11. The HMBC (600 MHz, DMSO- d_6) spectrum of 2	S14
Figure S12. The ROESY (600 MHz, DMSO- d_6) spectrum of 2	S15
Figure S13. ESI/MS isotopic cluster patterns of compounds 1 , 2 and 6 ((a)-(c)) in positive and negative ion modes	S16
Figure S14. 1D Selective gradient ROESY experiments (600 MHz, DMSO- d_6) of 1	S18
Figure S15. The variable temperature NMR experiments (600 MHz, MeOH- d_4 and DMSO- d_6) of 1	S21
Figure S16. The CD spectra of 2-4	S22
Figure S17. The CD spectrum of 6	S23

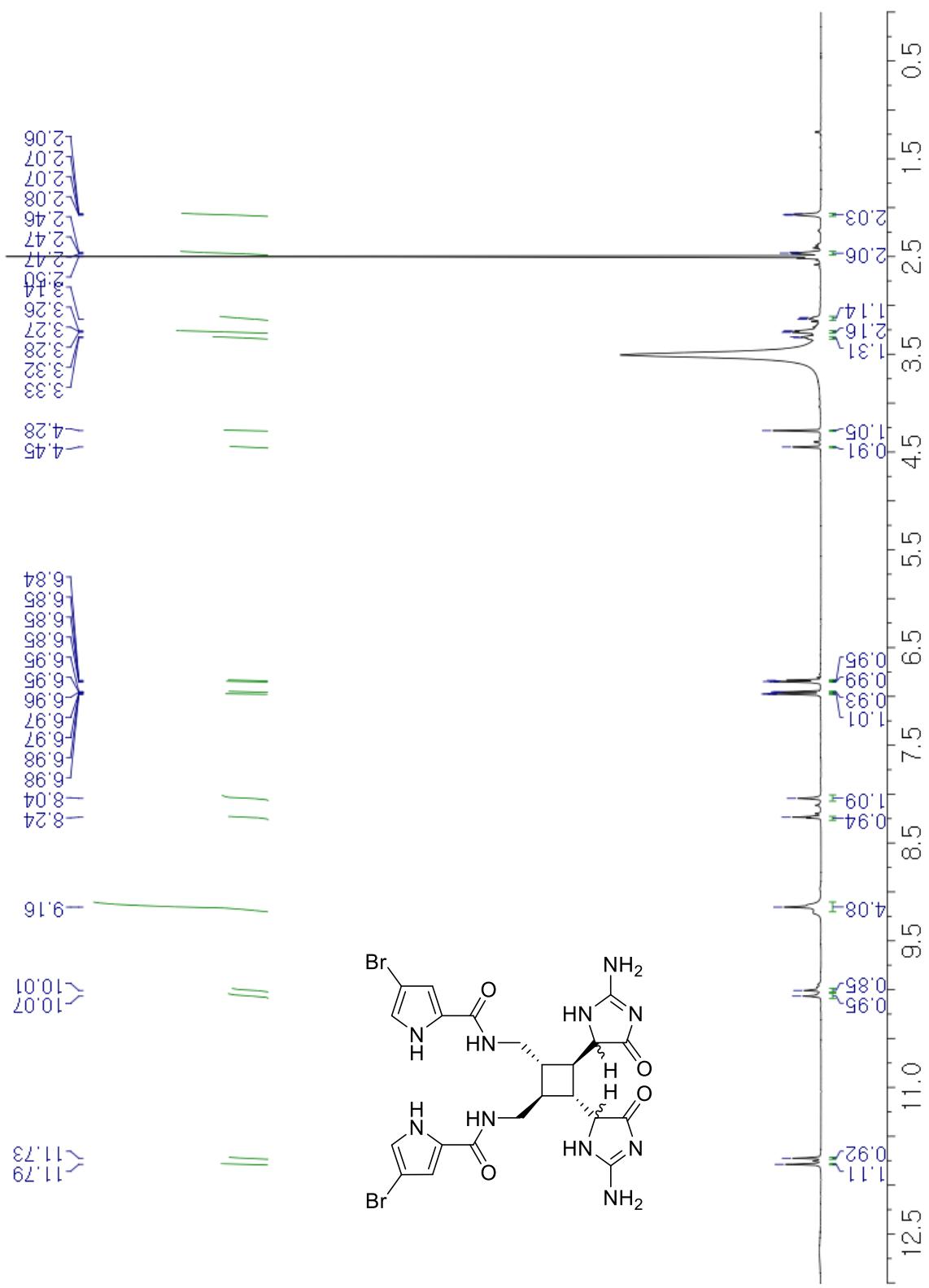


Figure S1. The ^1H NMR (600 MHz, $\text{DMSO}-d_6$) spectrum of **1**

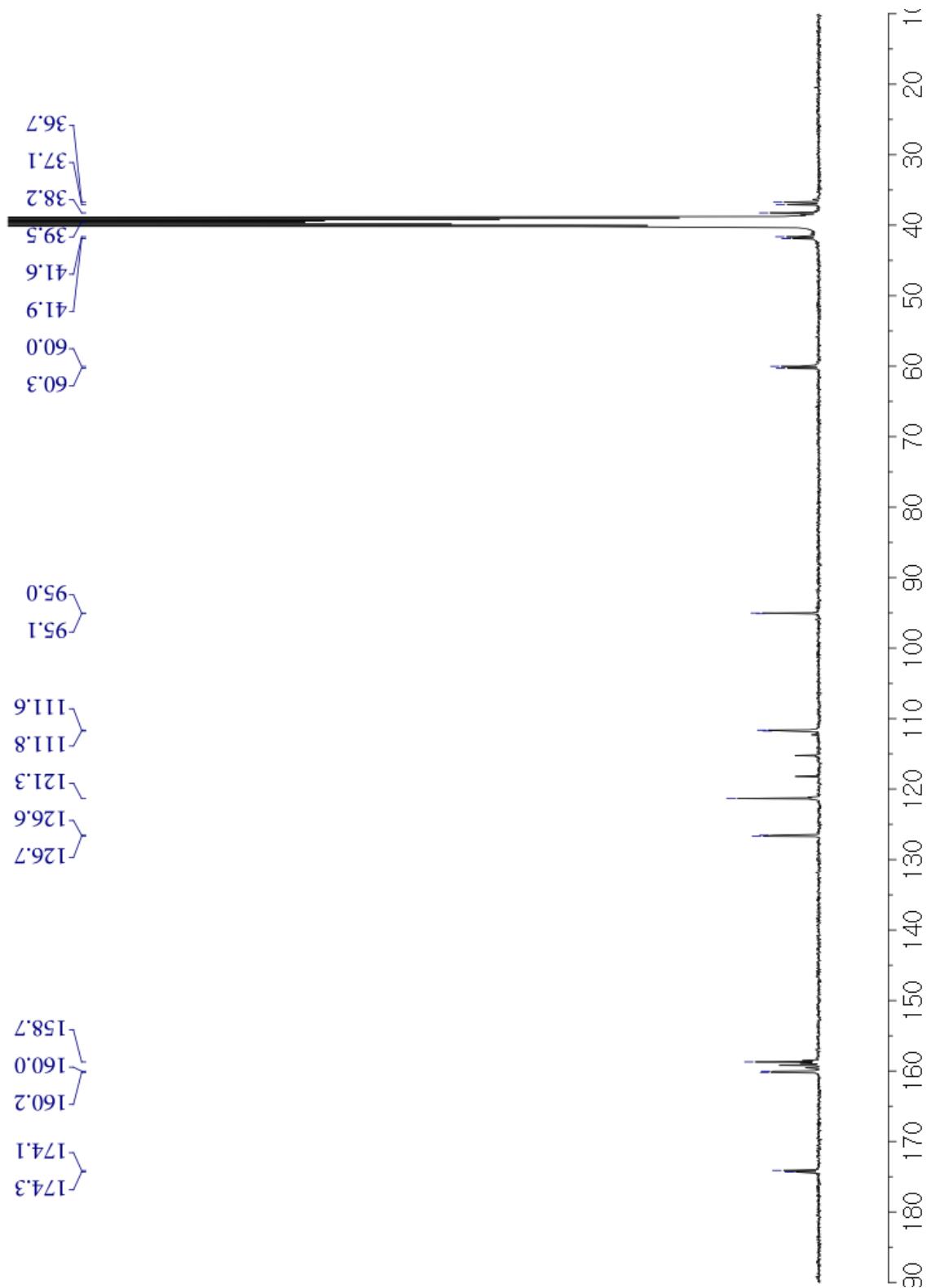


Figure S2. The ^{13}C NMR (150 MHz, $\text{DMSO}-d_6$) spectrum of **1**

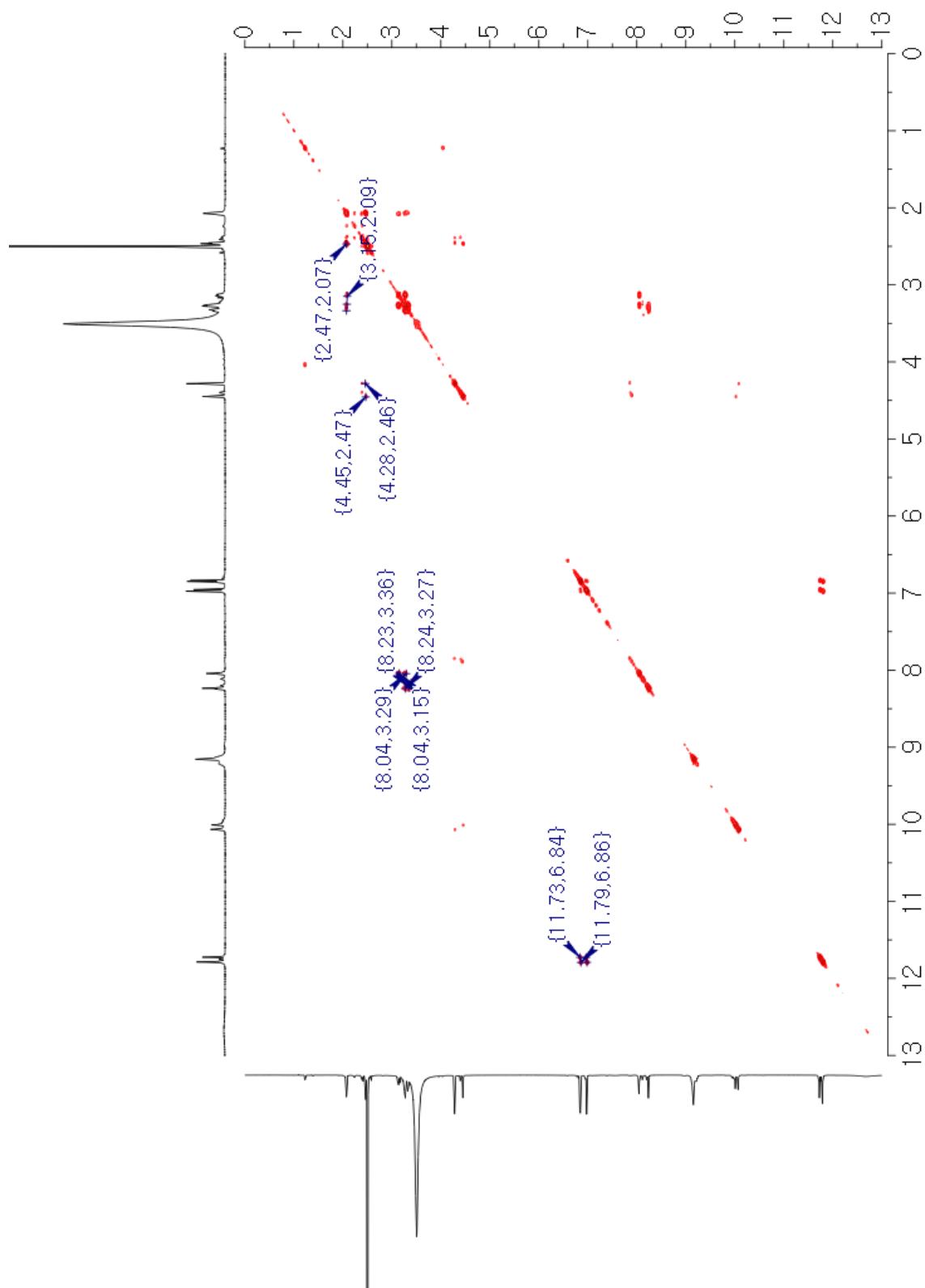


Figure S3. The COSY (600 MHz, DMSO-*d*₆) spectrum of **1**

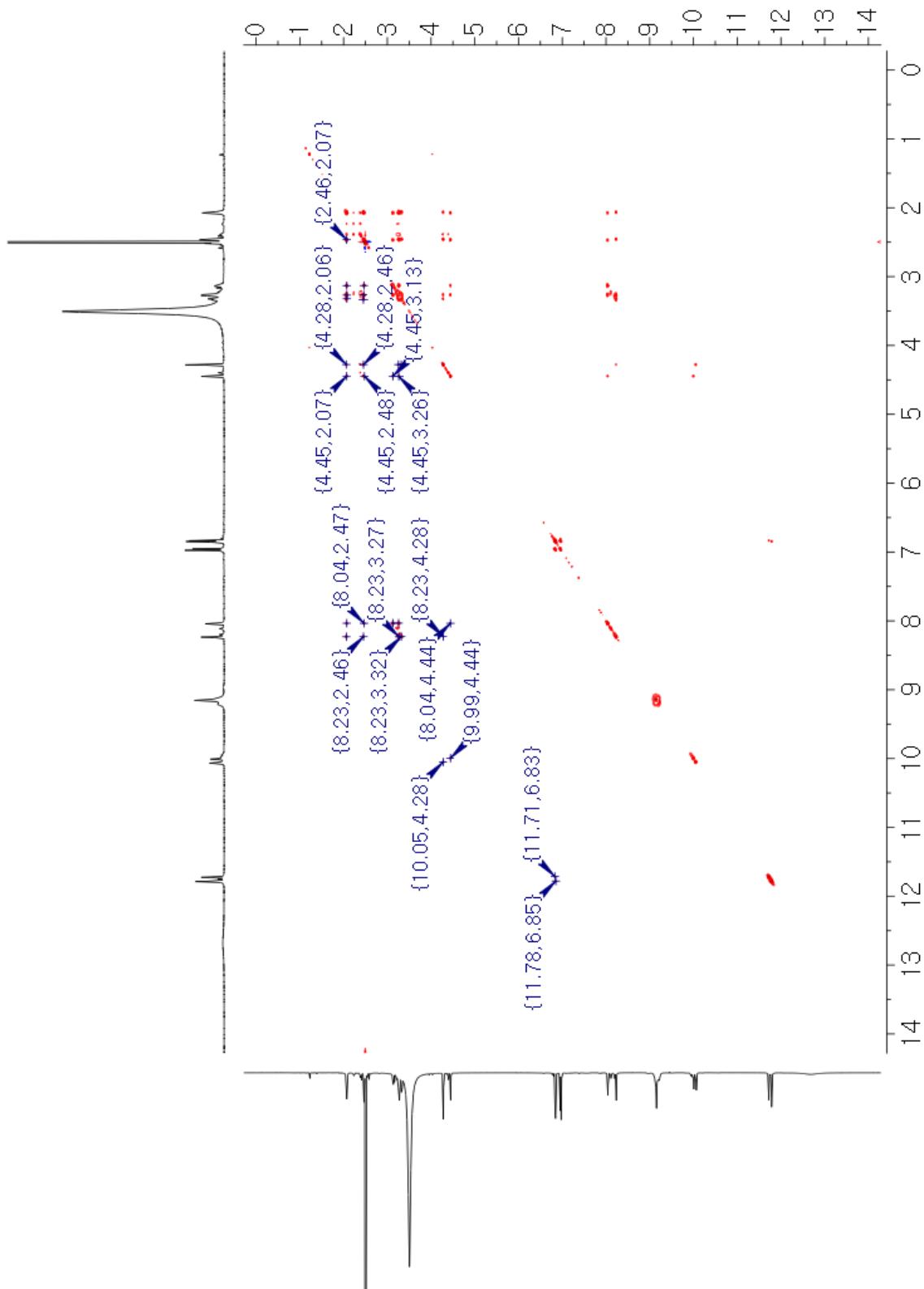


Figure S3. The TOCSY (600 MHz, $\text{DMSO}-d_6$) spectrum of **1**

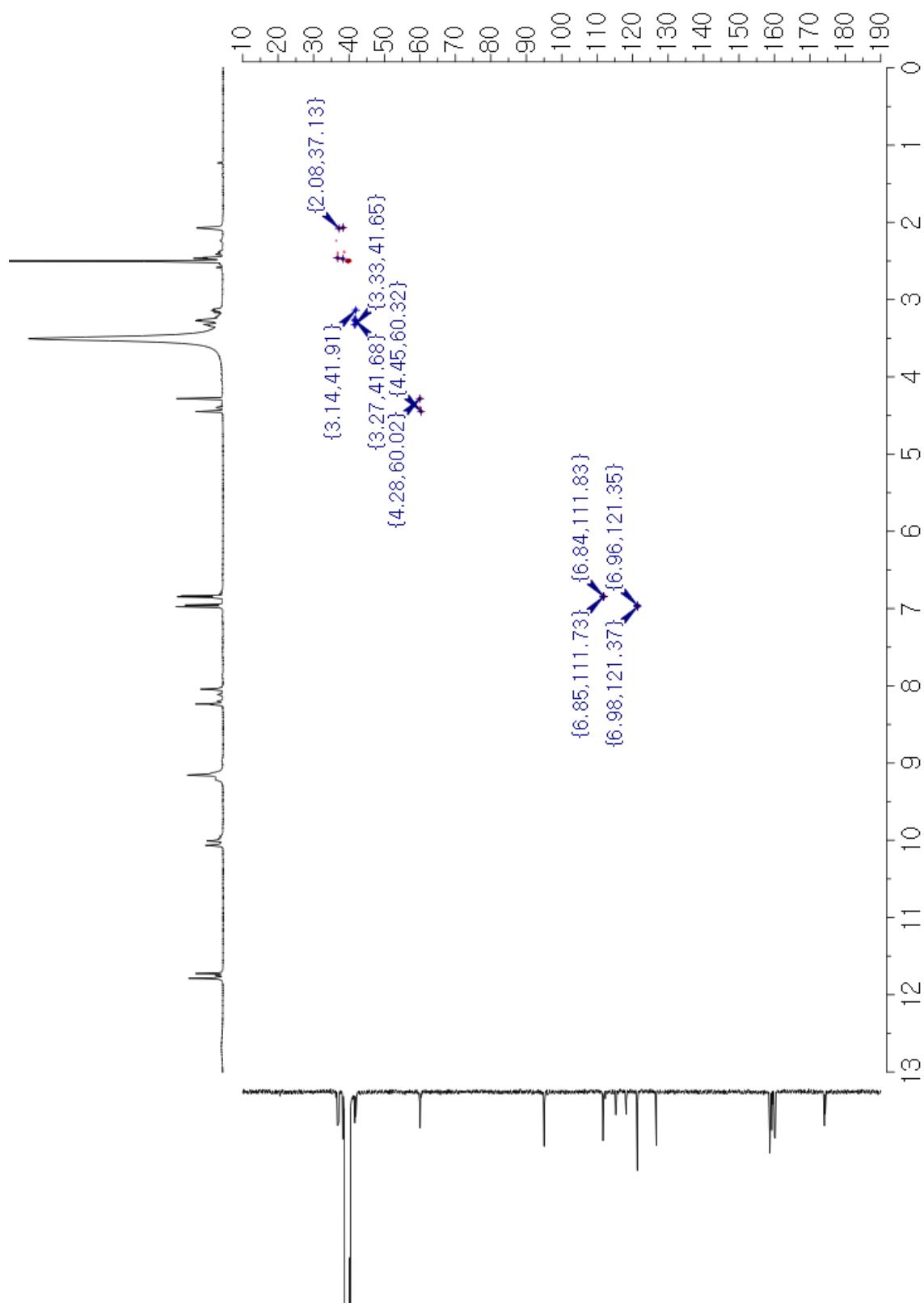


Figure S4. The eHSQC (600 MHz, DMSO-*d*₆) spectrum of **1**

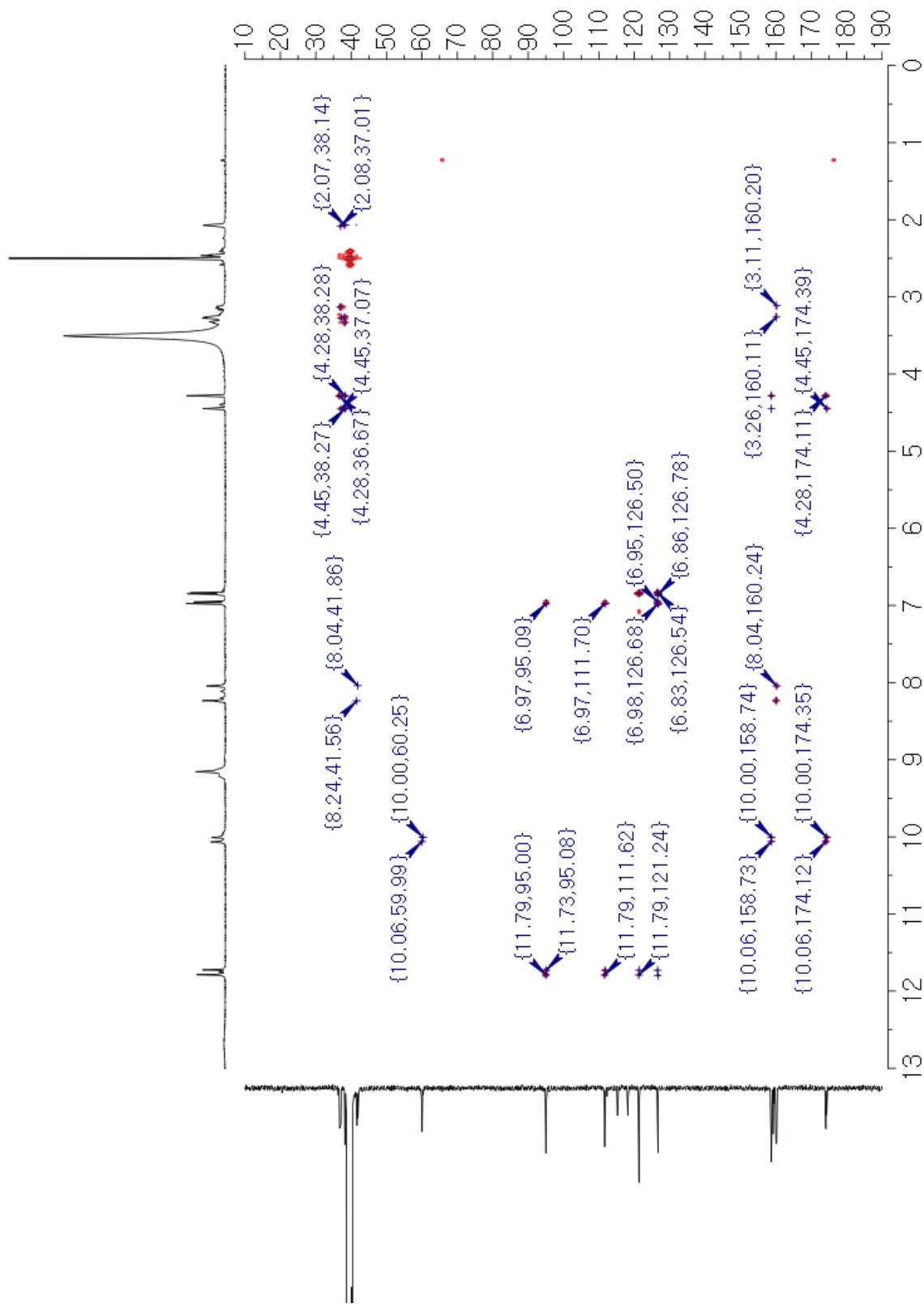


Figure S5. The HMBC (600 MHz, $\text{DMSO}-d_6$) spectrum of **1**

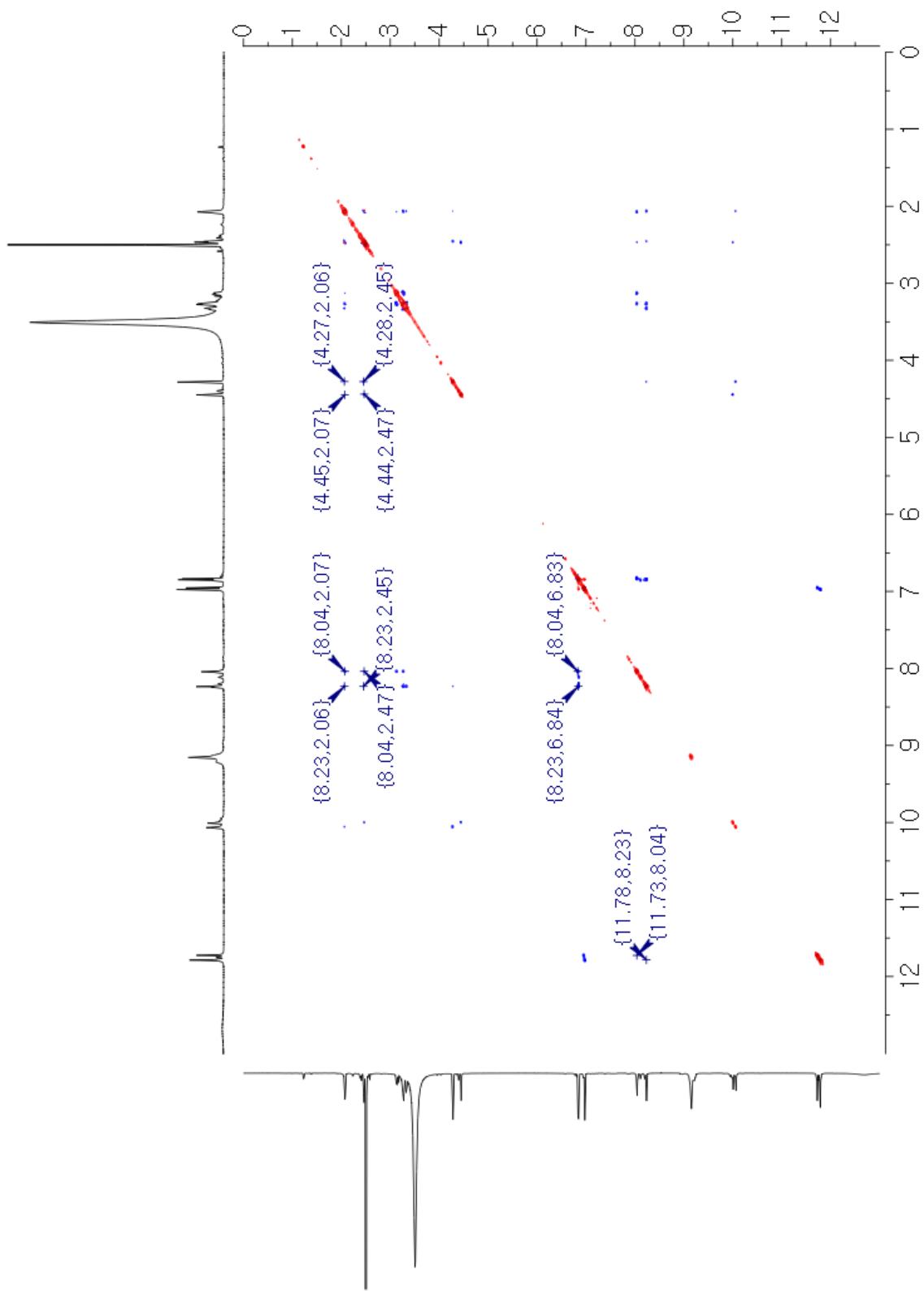


Figure S6. The ROESY (600 MHz, $\text{DMSO}-d_6$) spectrum of **1**

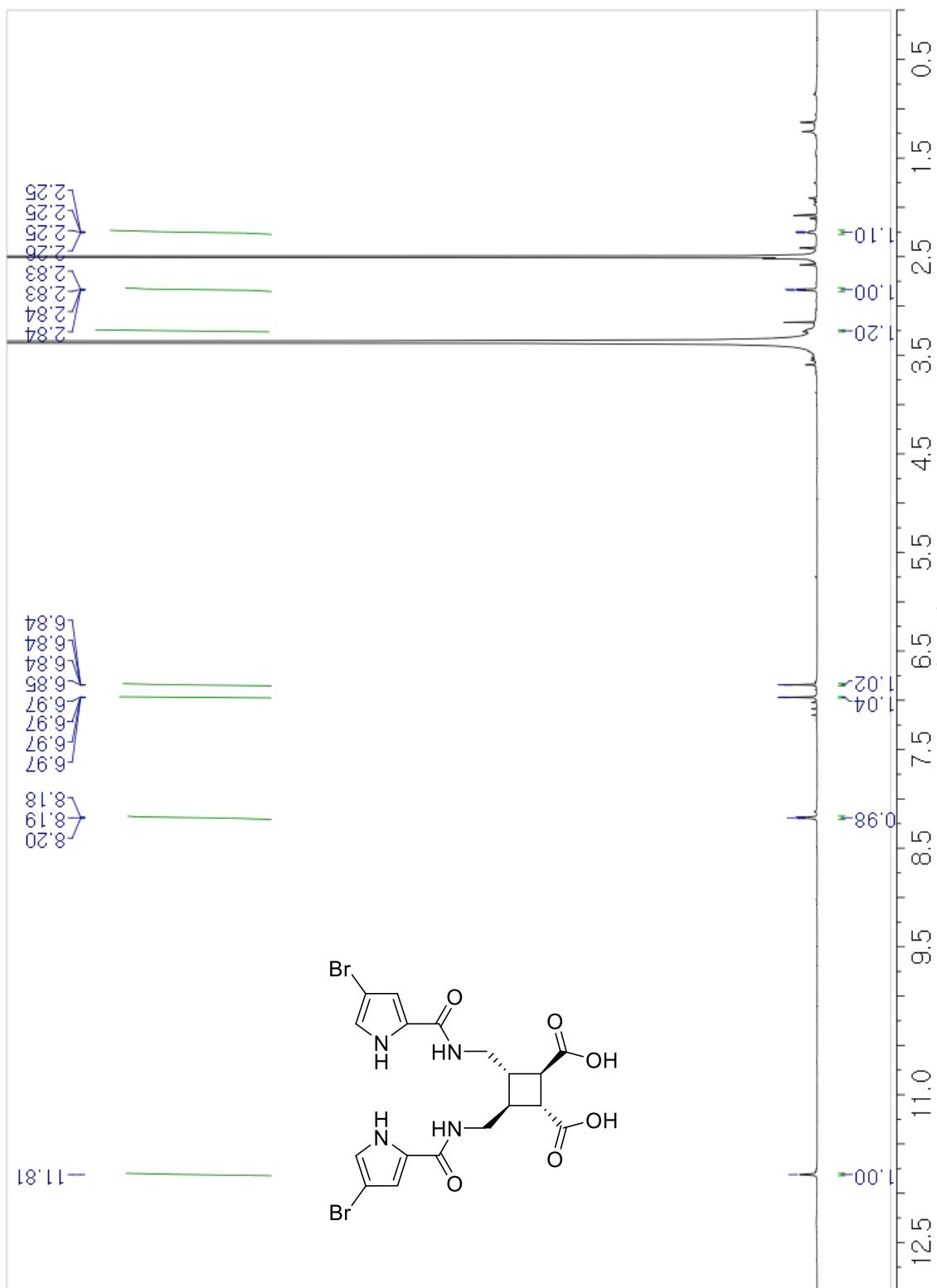


Figure S7. The ^1H NMR (600 MHz, $\text{DMSO}-d_6$) spectrum of **2**

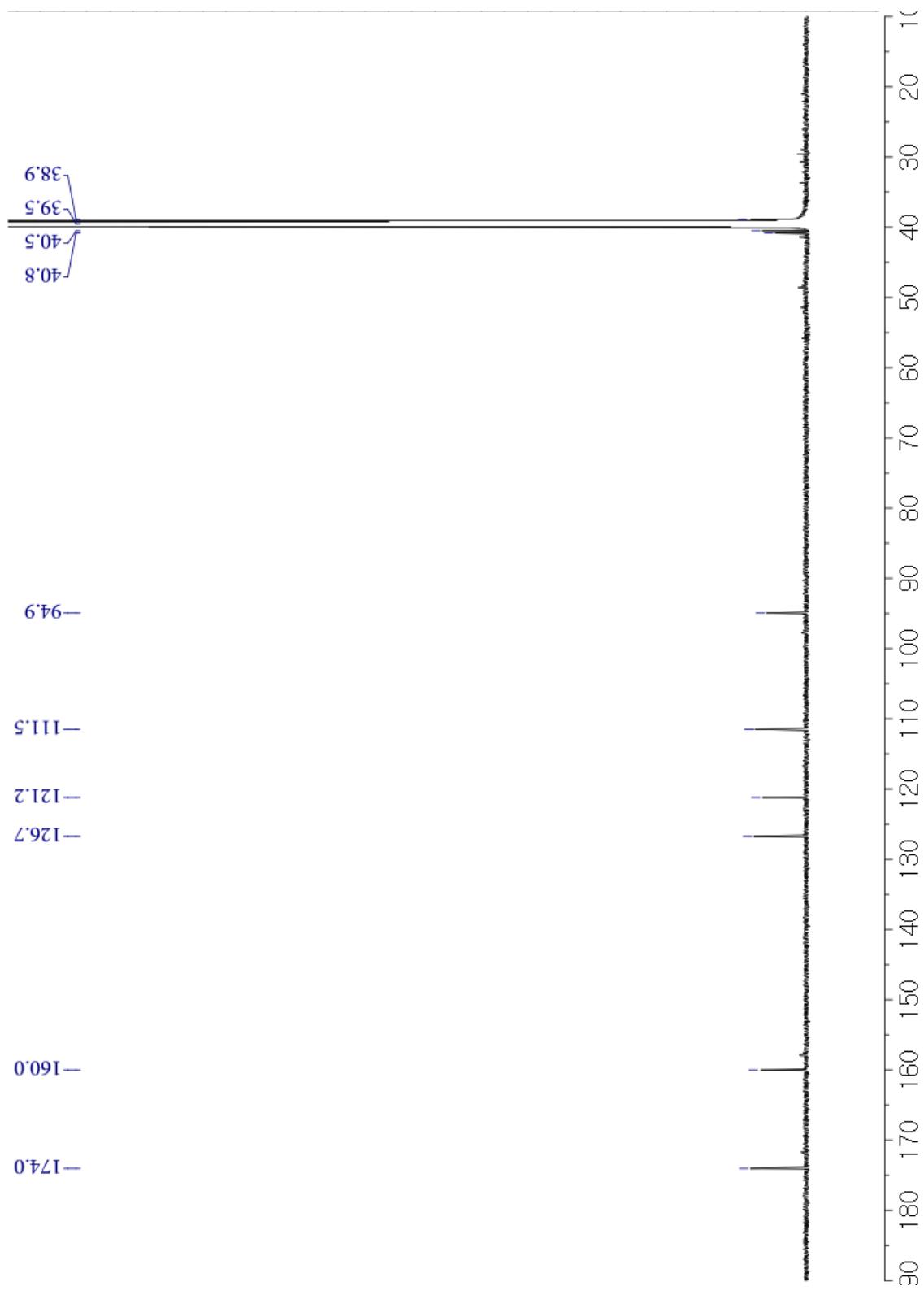


Figure S8. The ^{13}C NMR (150 MHz, $\text{DMSO}-d_6$) spectrum of **2**

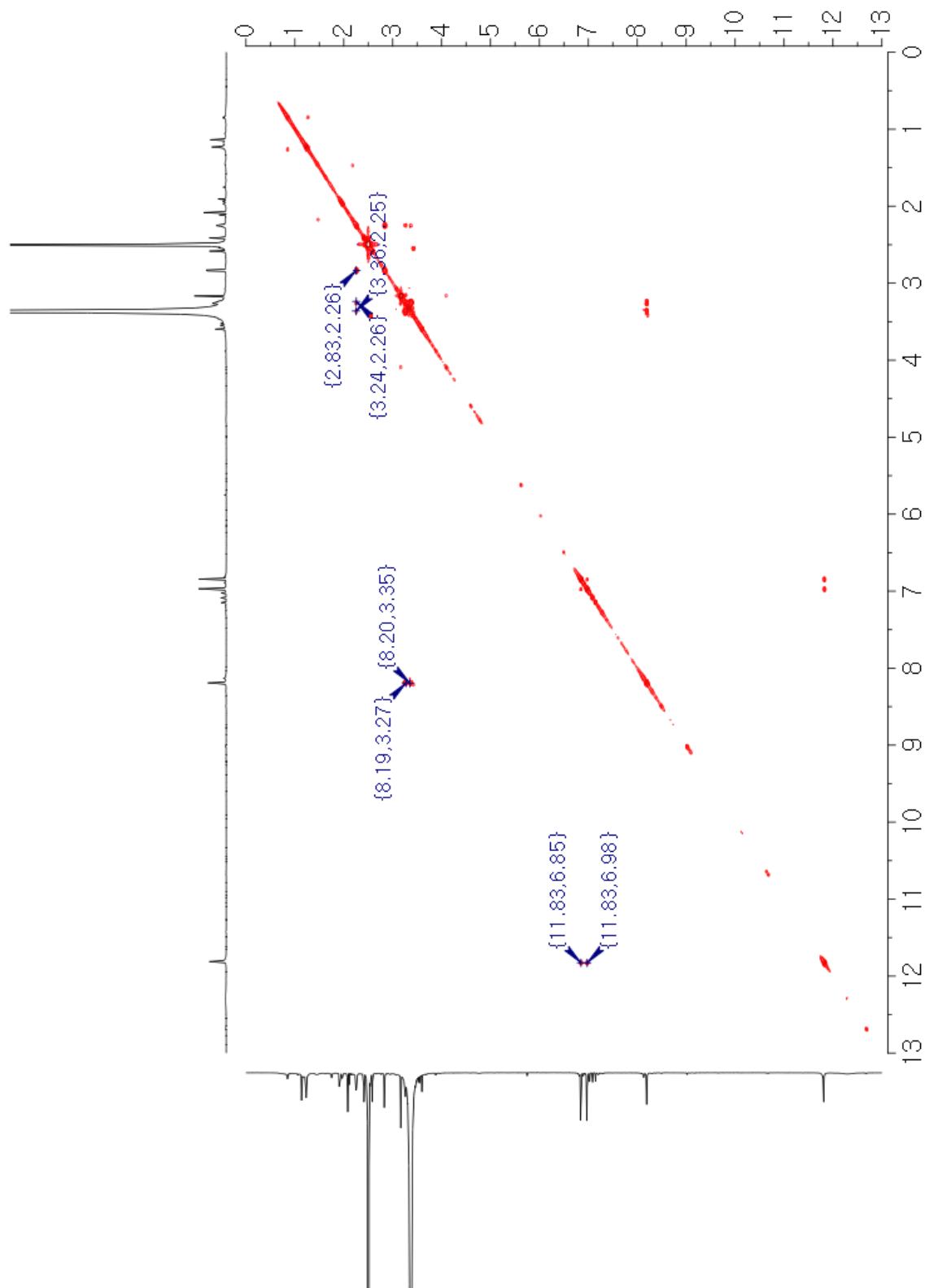


Figure S9. The COSY (600 MHz, $\text{DMSO}-d_6$) spectrum of **2**

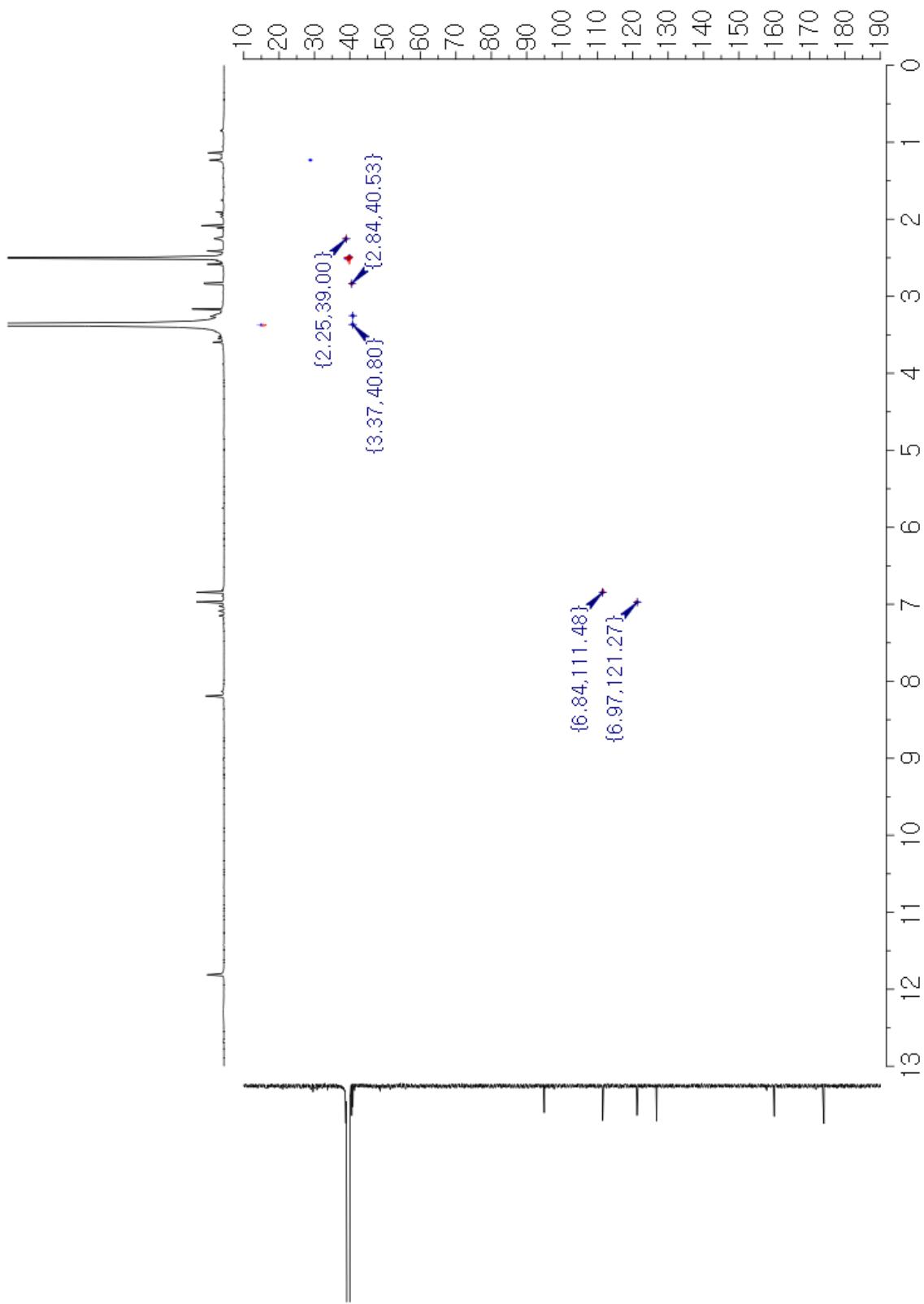


Figure S10. The eHSQC (600 MHz, DMSO-*d*₆) spectrum of **2**

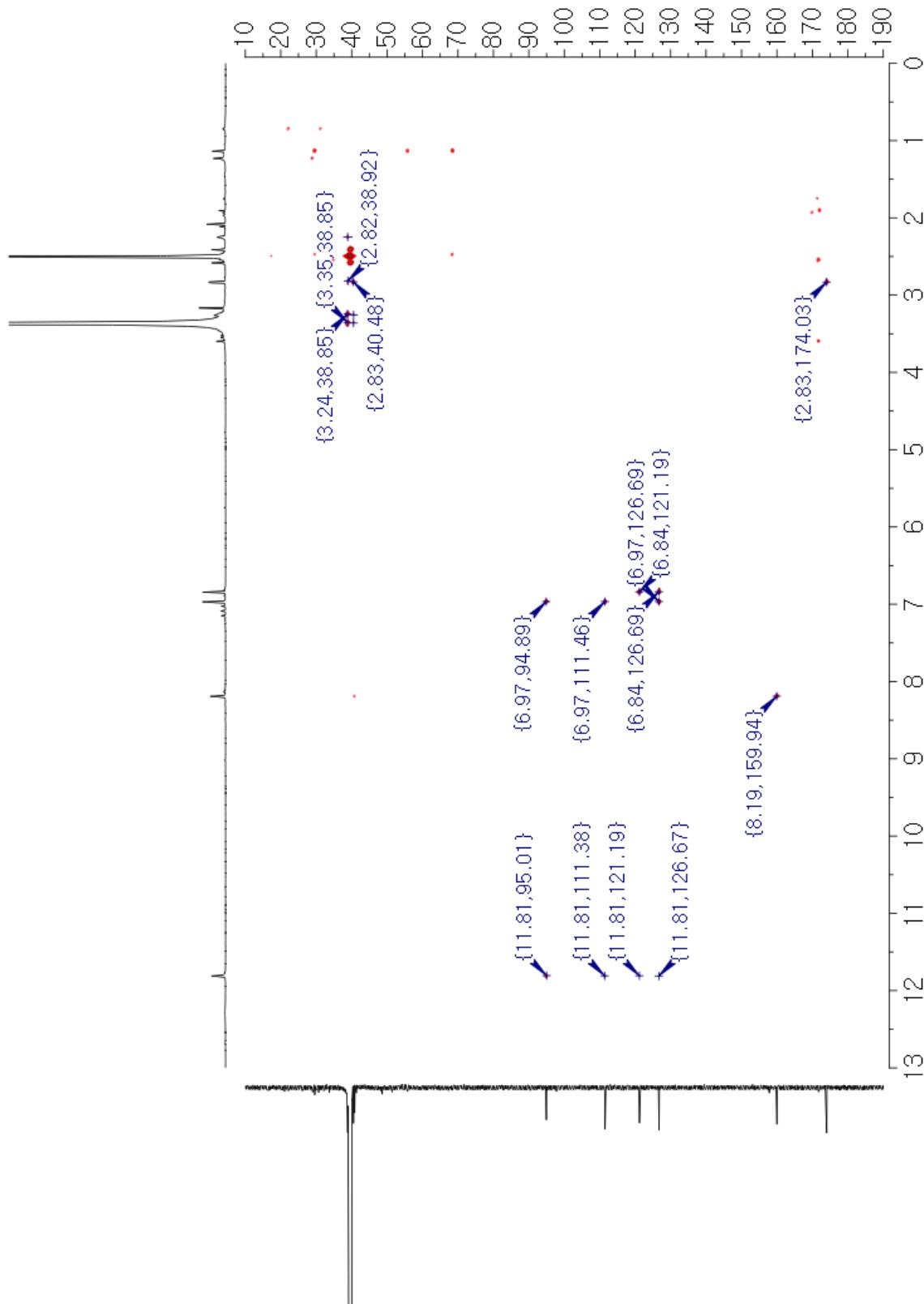


Figure S11. The HMBC (600 MHz, $\text{DMSO}-d_6$) spectrum of **2**

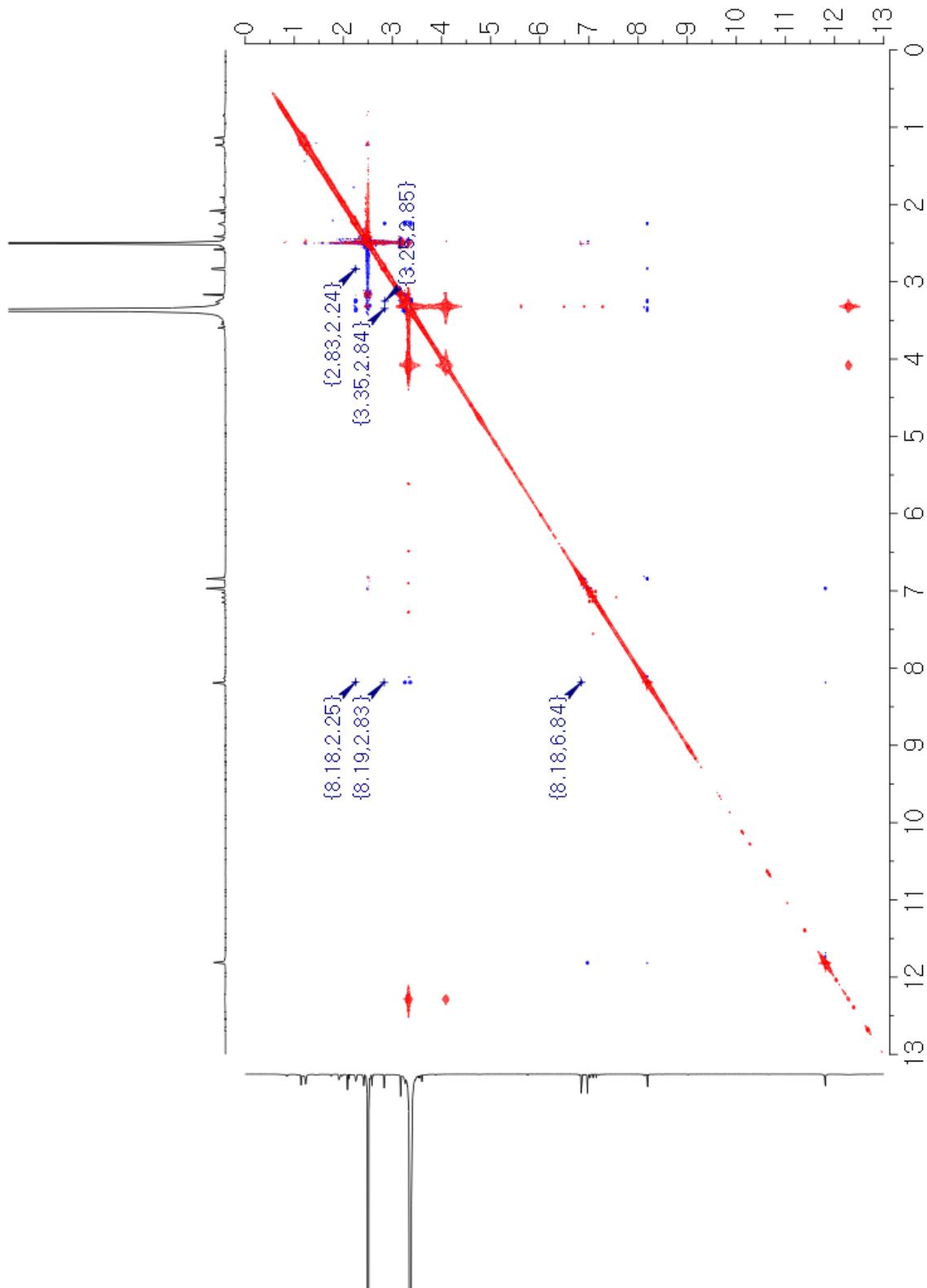


Figure S12. The ROESY (600 MHz, DMSO-*d*₆) spectrum of **2**

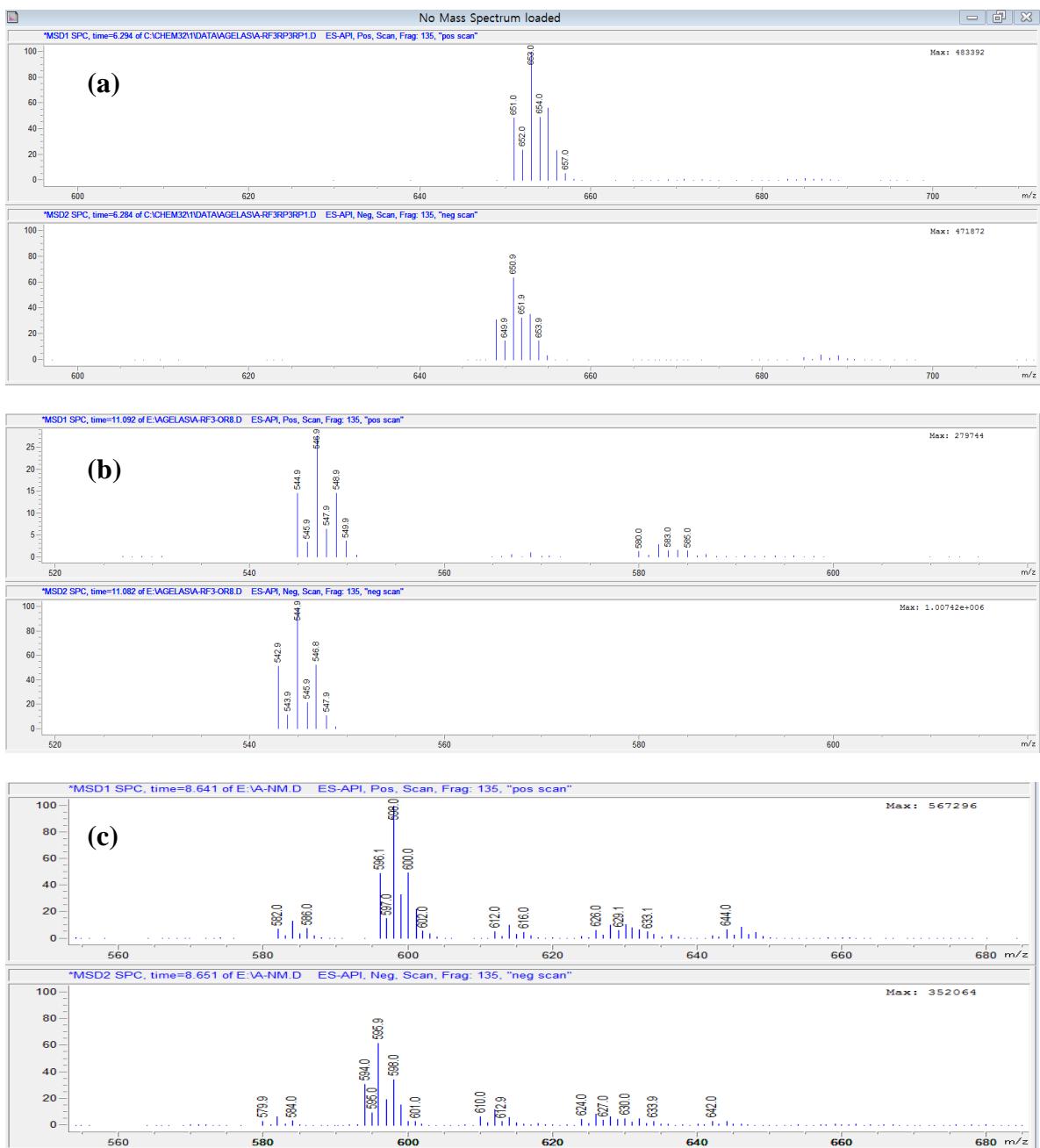
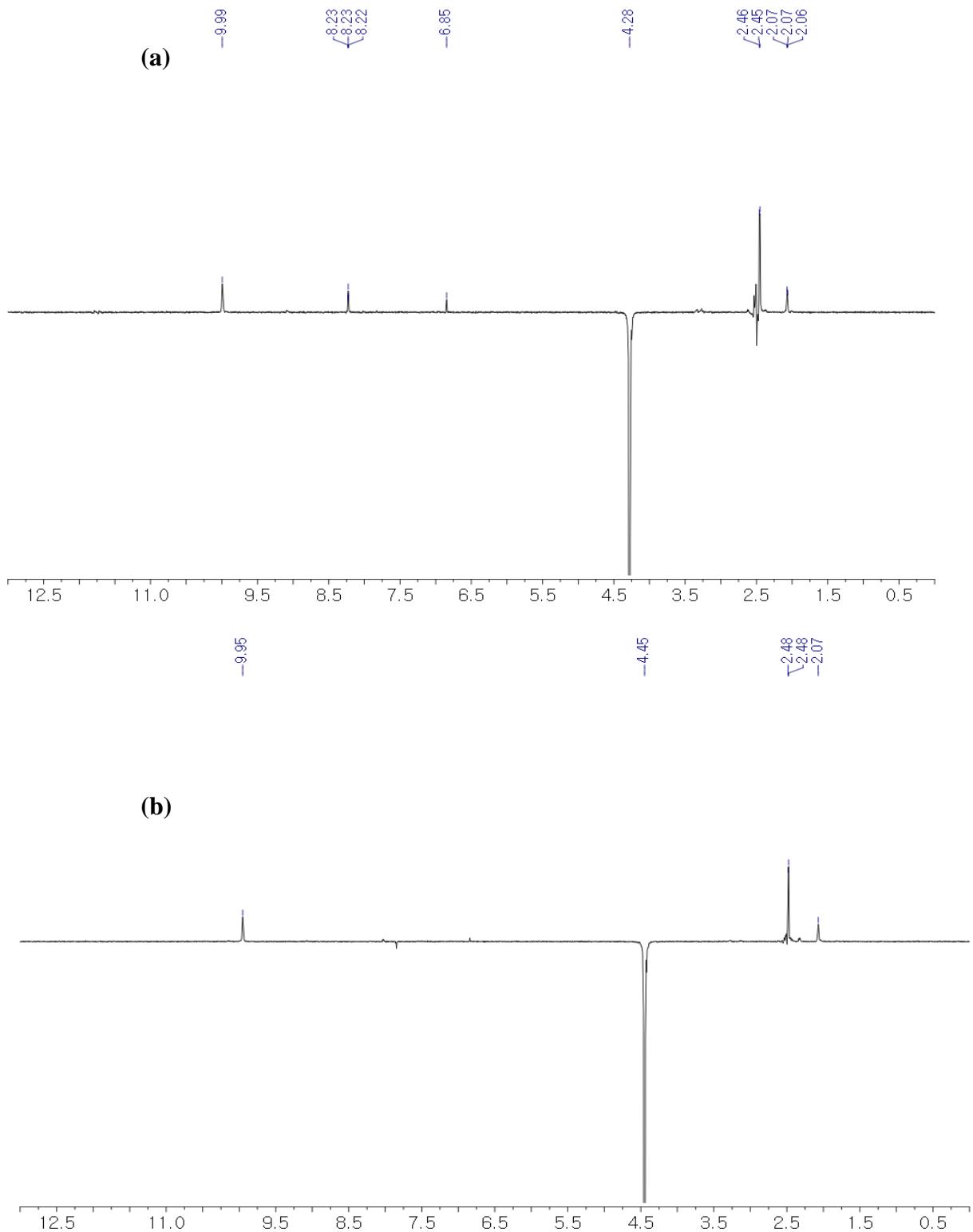


Figure S13. ESI/MS isotopic cluster patterns of compounds **1**, **2** and **6** ((a)-(c)) in positive and negative ion modes



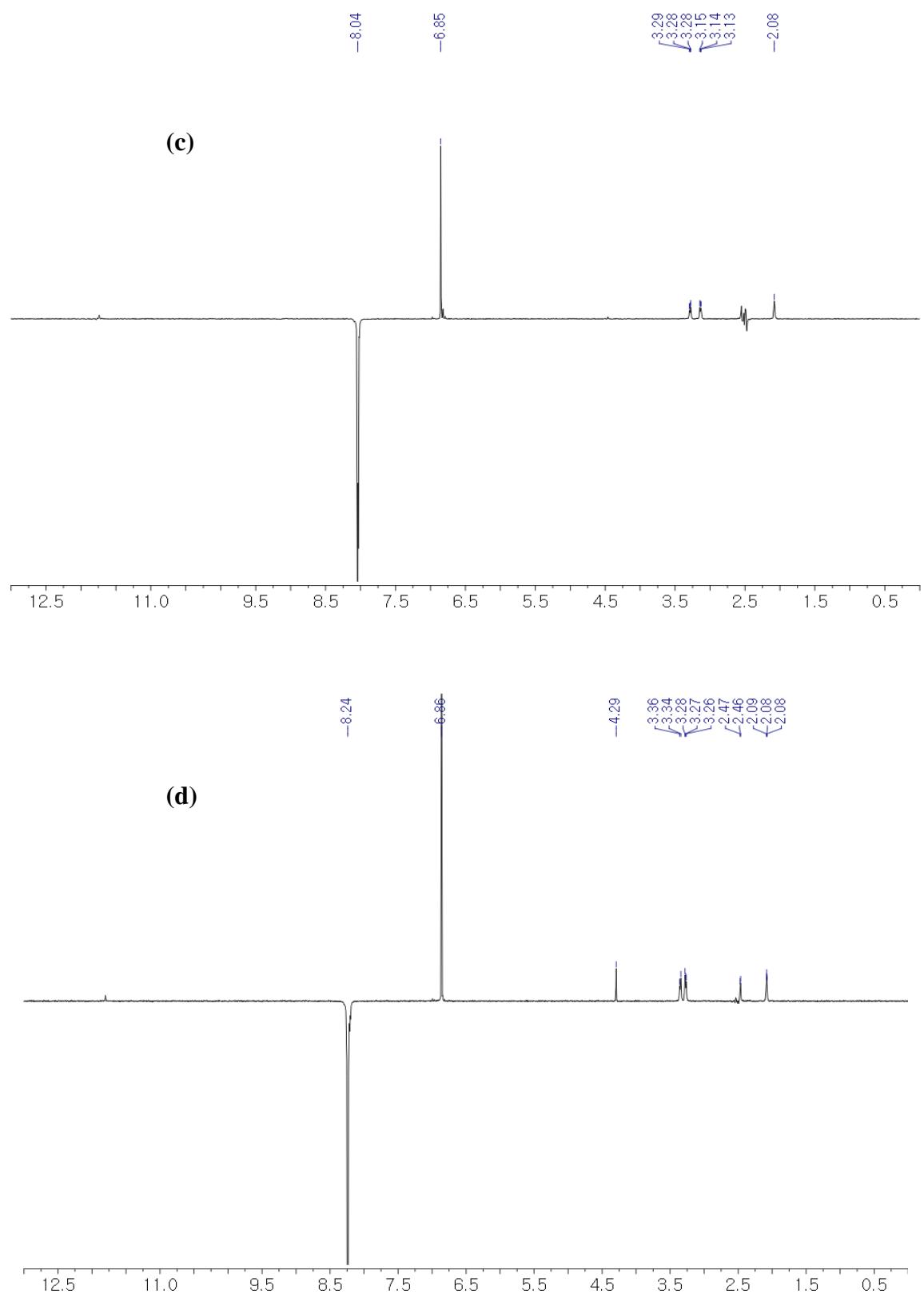
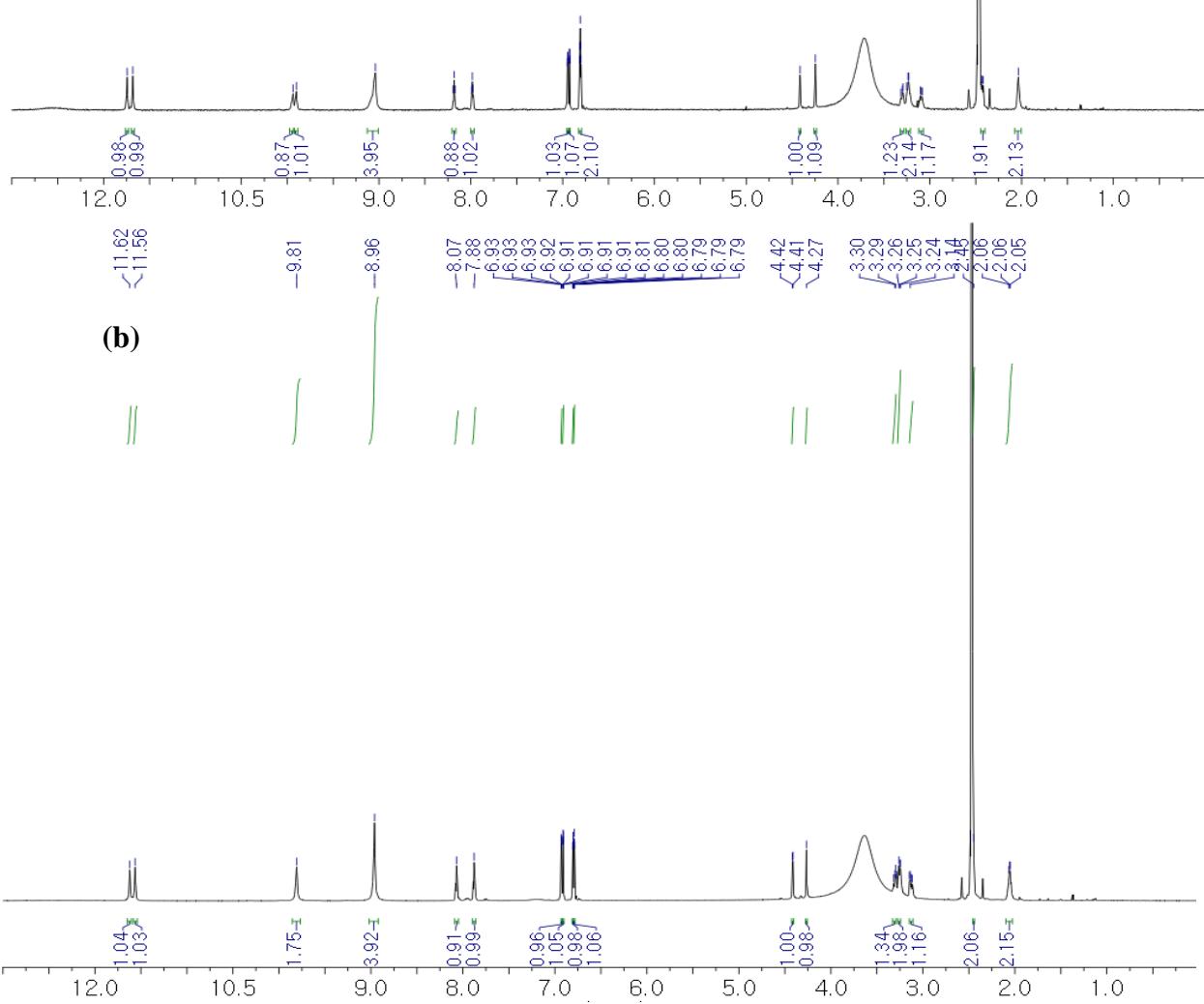
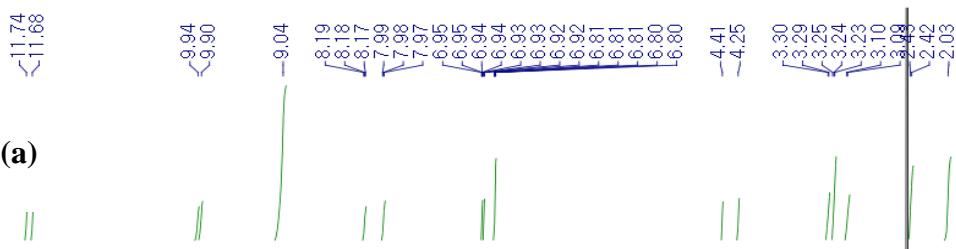
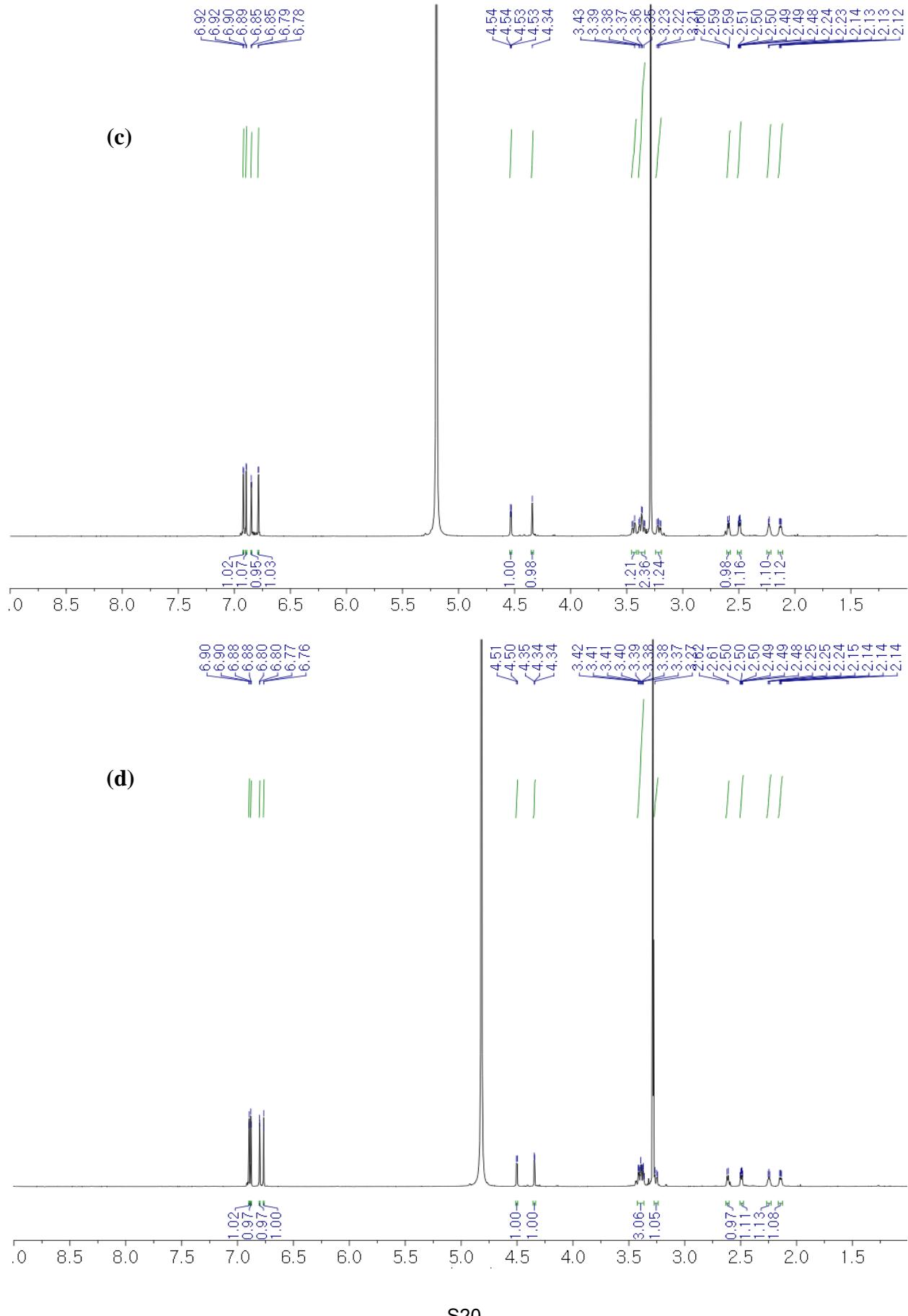


Figure S14. 1D selective gradient ROESY experiments (600 MHz, DMSO-*d*₆) of **1**: Irradiation of the protons at δ_{H} 4.28, 4.45, 8.04, and 8.24 for (a)-(d), respectively.





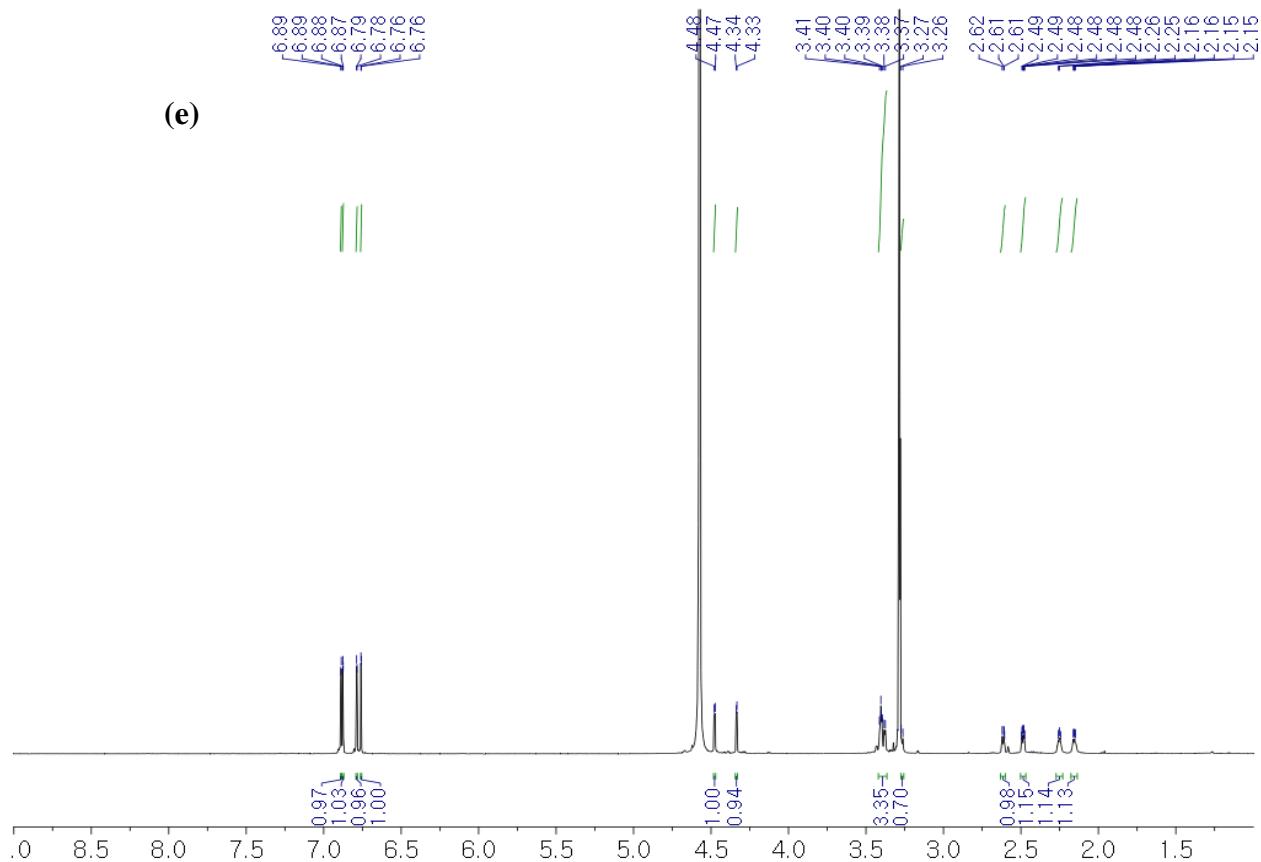


Figure S15. The variable temperature NMR experiments (DMSO-*d*₆) of **1**: (a) +25 °C and (b) +50 °C (MeOH-*d*₄) of **1**: (c) -15 °C, (d) +25 °C, and (e) +50 °C

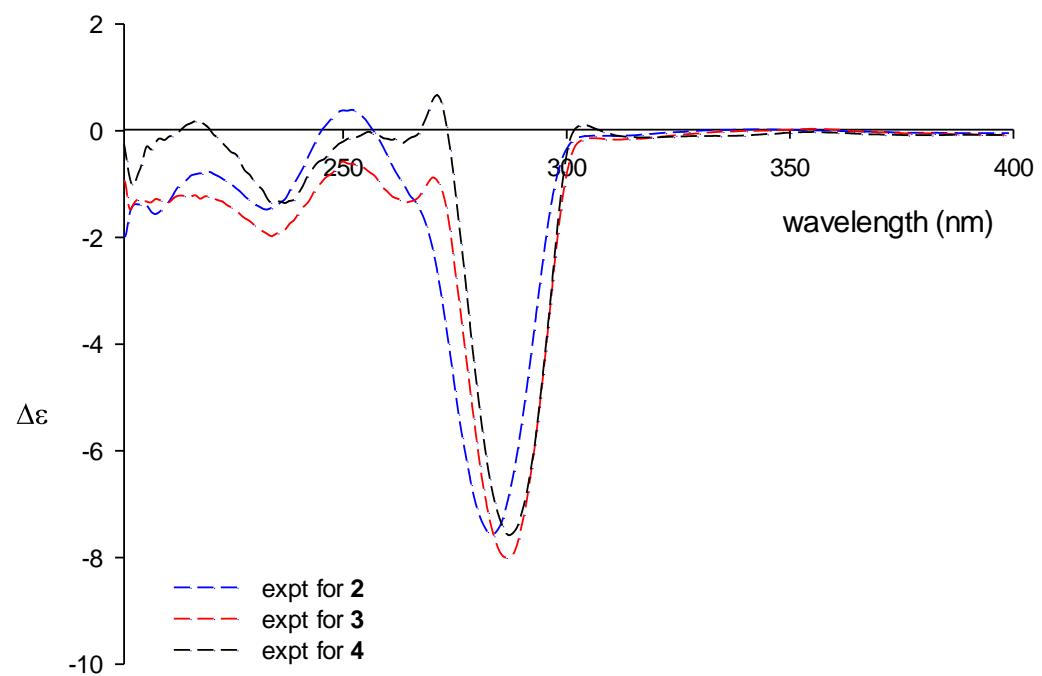


Figure S16. The CD spectra of **2-4**

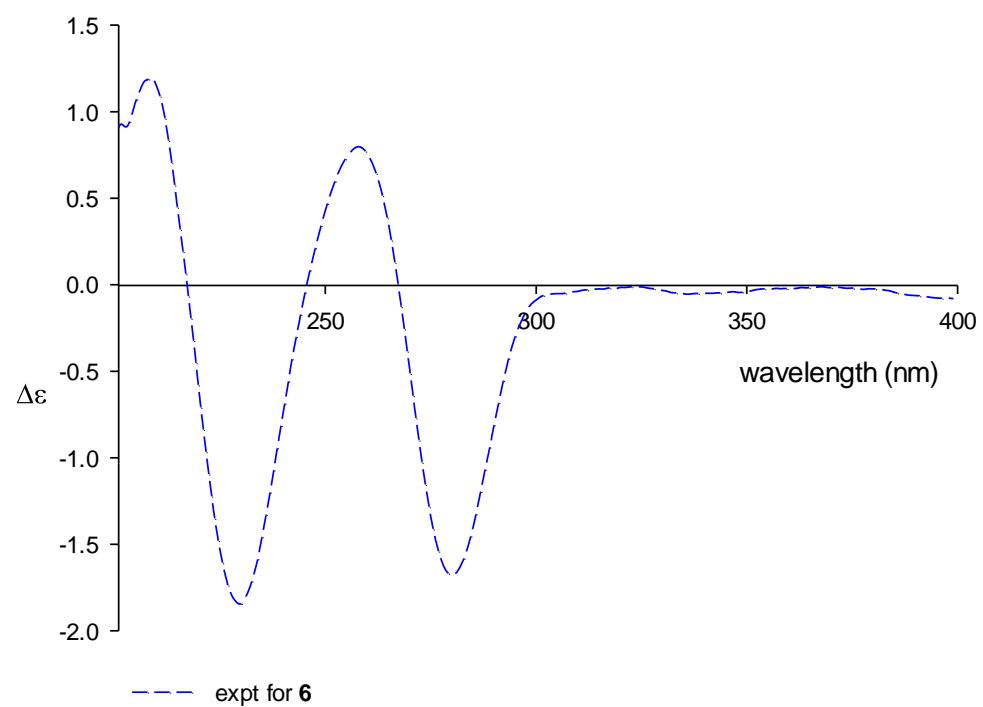


Figure S17. The CD spectrum of **6**