

Supplementary Materials

Hydrolyzable Tannins and Oligomeric proanthocyanidins of Three Polygonaceous Plants

Yun-Qiu Li^{1,2}, Masako Kitaoka¹, Juri Takayoshi¹, Ya-Feng Wang³, Yong-Lin Huang^{3,*}, Yosuke Matsuo¹, Yoshinori Saito¹, Dian-Peng Li³, Gen-ichiro Nonaka⁴, Zhi-Hong Jiang⁵ and Takashi Tanaka^{1,*}

¹ Department of Natural Product Chemistry, Graduate School of Biomedical Sciences, Nagasaki University, 1-14 Bunkyo-machi, Nagasaki 852-8521, Japan

² College of Medical Laboratory Science, Guilin Medical University, 109, Huancheng north 2 Road, Guilin, Guangxi, 541004, China

³ Guangxi Key Laboratory of Functional Phytochemicals Research and Utilization, Guangxi Institute of Botany, Guilin 541006, China

⁴ Usaien Pharmaceutical Company, Ltd., 1-4-6 Zaimoku, Saga 840-0055, Japan

⁵ Institute for Applied Research in Medicine and Health, Macau University of Science and Technology, Taipa, Macau 999078, China

* Correspondence: t-tanaka@nagasaki-u.ac.jp; Tel.: +81-95-819-2432 (T.T.)

Figure S1. HPLC of extracts of Polygonaceous plants.

Figure S2. HPLC analysis of acid hydrolysis products of **3**.

Figure S3. Thiol degradation of proanthocyanidin oligomers.

Figure S4. ¹H NMR spectrum of **3**.

Figure S5. ¹³C NMR spectrum of **3**.

Figure S6. ¹H-¹H COSY spectrum of **3**.

Figure S7. HSQC spectrum of **3**.

Figure S8. HMBC spectrum of **3**.

Figure S9. ¹H NMR spectrum of **11**.

Figure S10. ¹³C NMR spectrum of **11**.

Figure S11. ¹H-¹H COSY spectrum of **11**.

Figure S12. HSQC spectrum of **11**.

Figure S13. HMBC spectrum of **11**.

Figure S14. NOESY spectrum of **11**.

Figure S15. ¹H NMR spectrum of **7**.

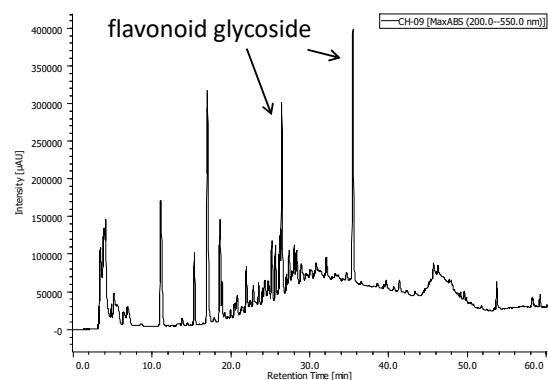
Figure S16. ¹³C NMR spectrum of **7**.

Figure S17. ¹H NMR spectrum of **7a**.

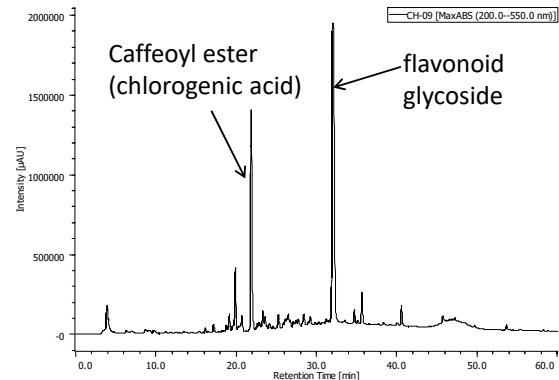
Figure S18. ¹³C NMR spectrum of **7a**.

Figure S1. HPLC of 60% CH₃CN extracts of Polygonaceous plants.

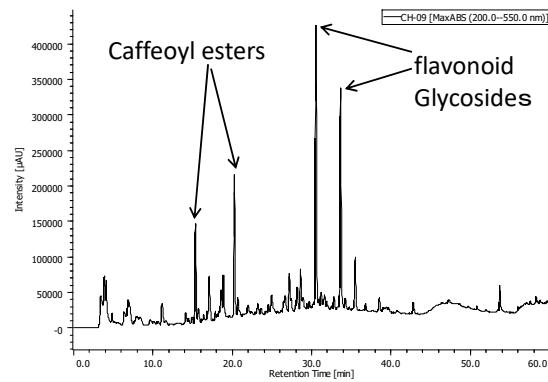
Reynoutria japonica



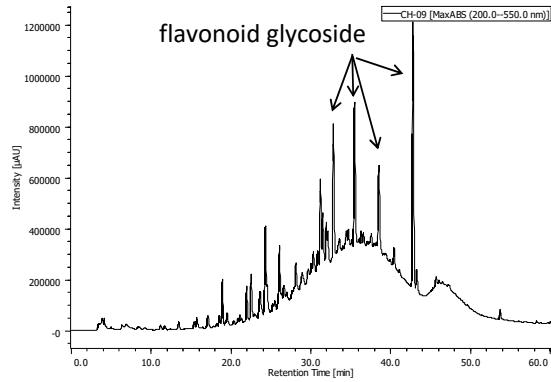
Persicaria perfoliata



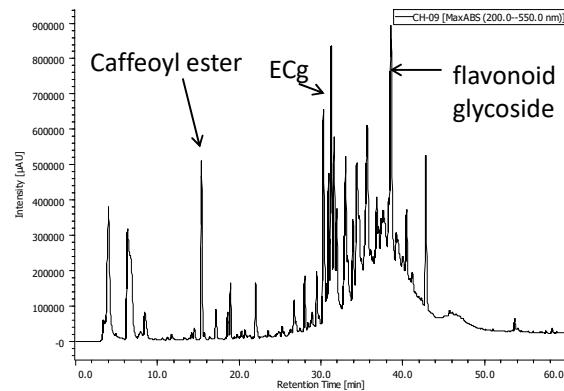
Persicaria longiseta



Persicaria lapathifolia



Persicaria filiformis



Persicaria thunbergii

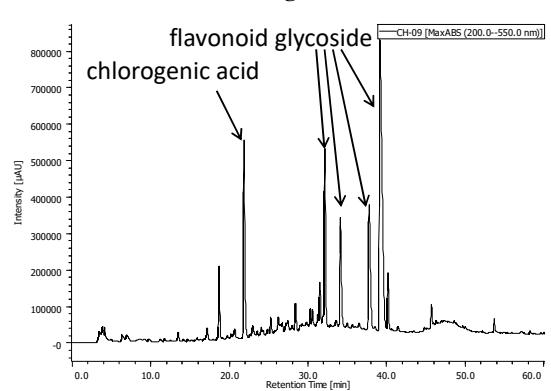


Figure S2. HPLC analysis of acid hydrolysis products of **3**.

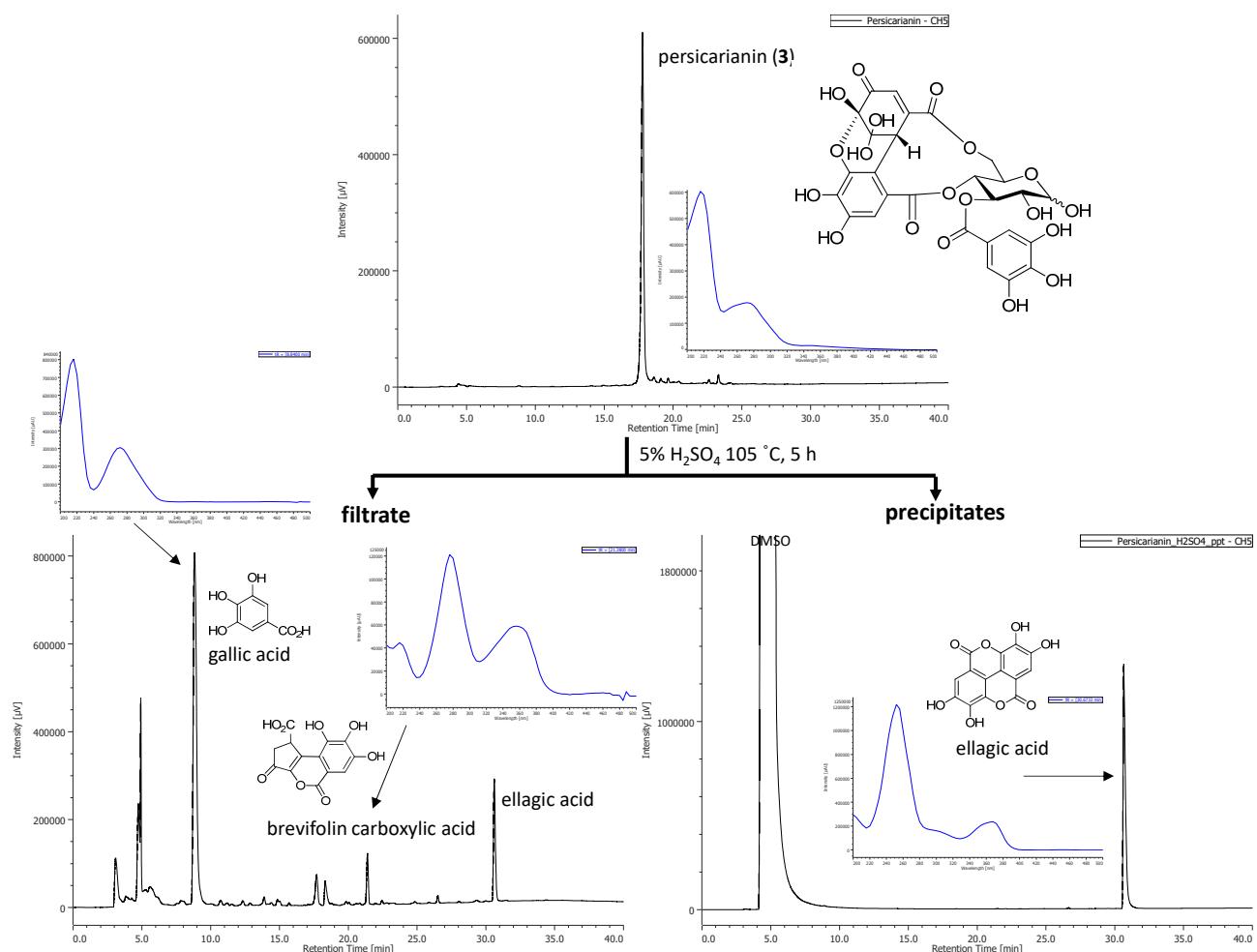
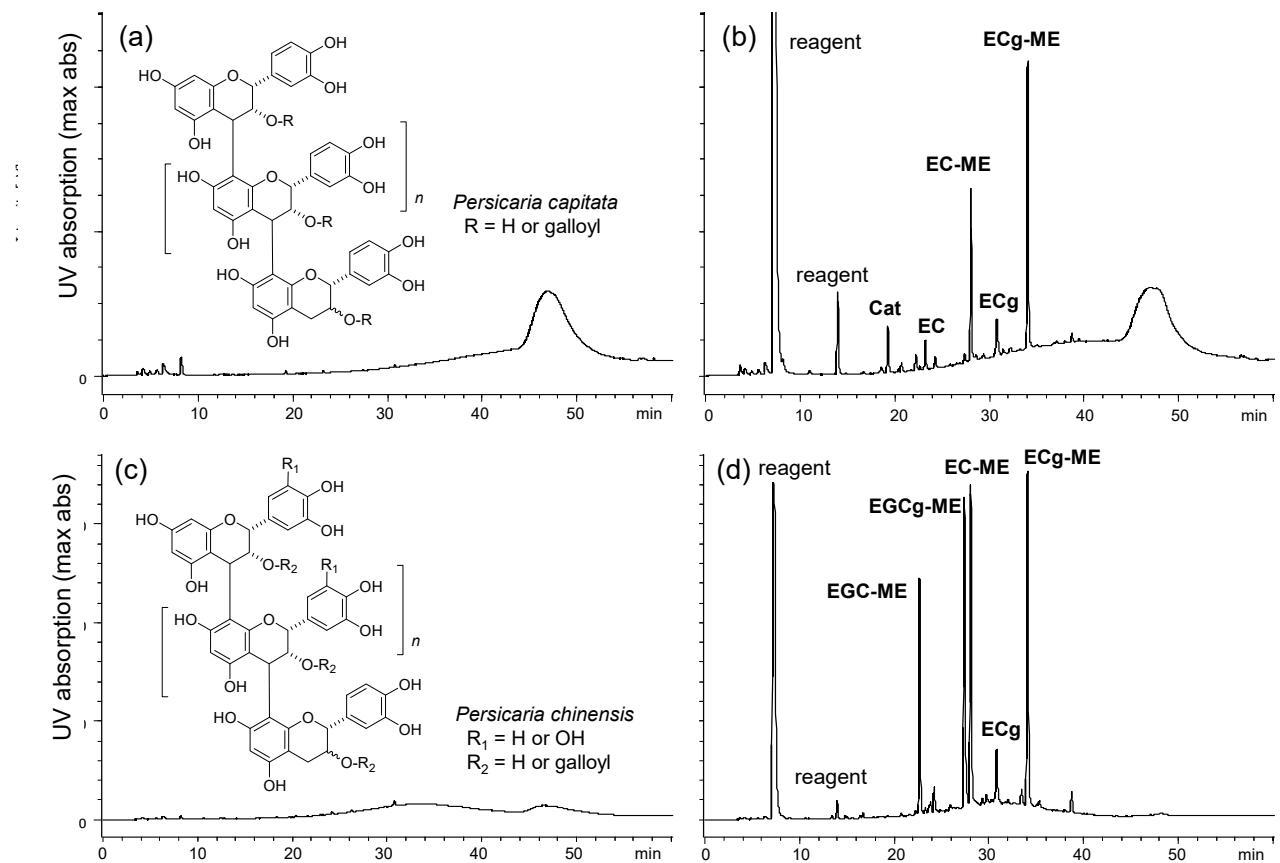


Figure S3. Thiol degradation of proanthocyanidin oligomers.



(a) Proanthocyanidin oligomers of *Persicaria capitata*, (b) Thiol degradation products of Proanthocyanidin oligomers of *Persicaria capitata*, (c) Proanthocyanidin oligomers of *Persicaria chinensis*, (d) Thiol degradation products of Proanthocyanidin oligomers of *Persicaria chinensis*.

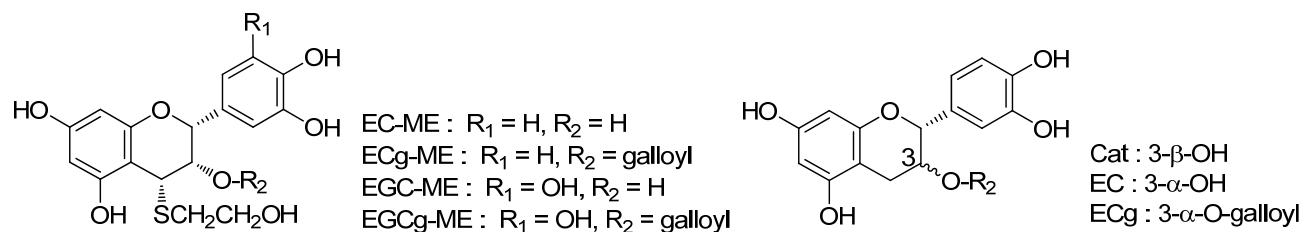


Figure S4. ^1H NMR spectrum of **3**.

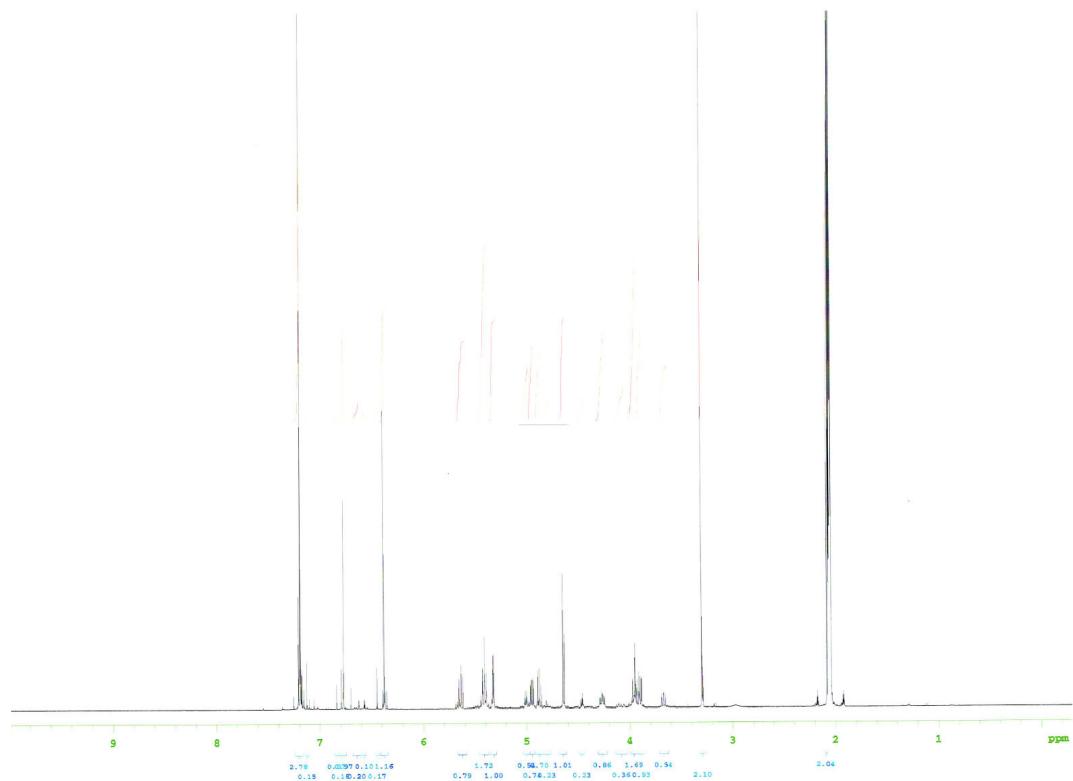


Figure S5. ^{13}C NMR spectrum of **3**.

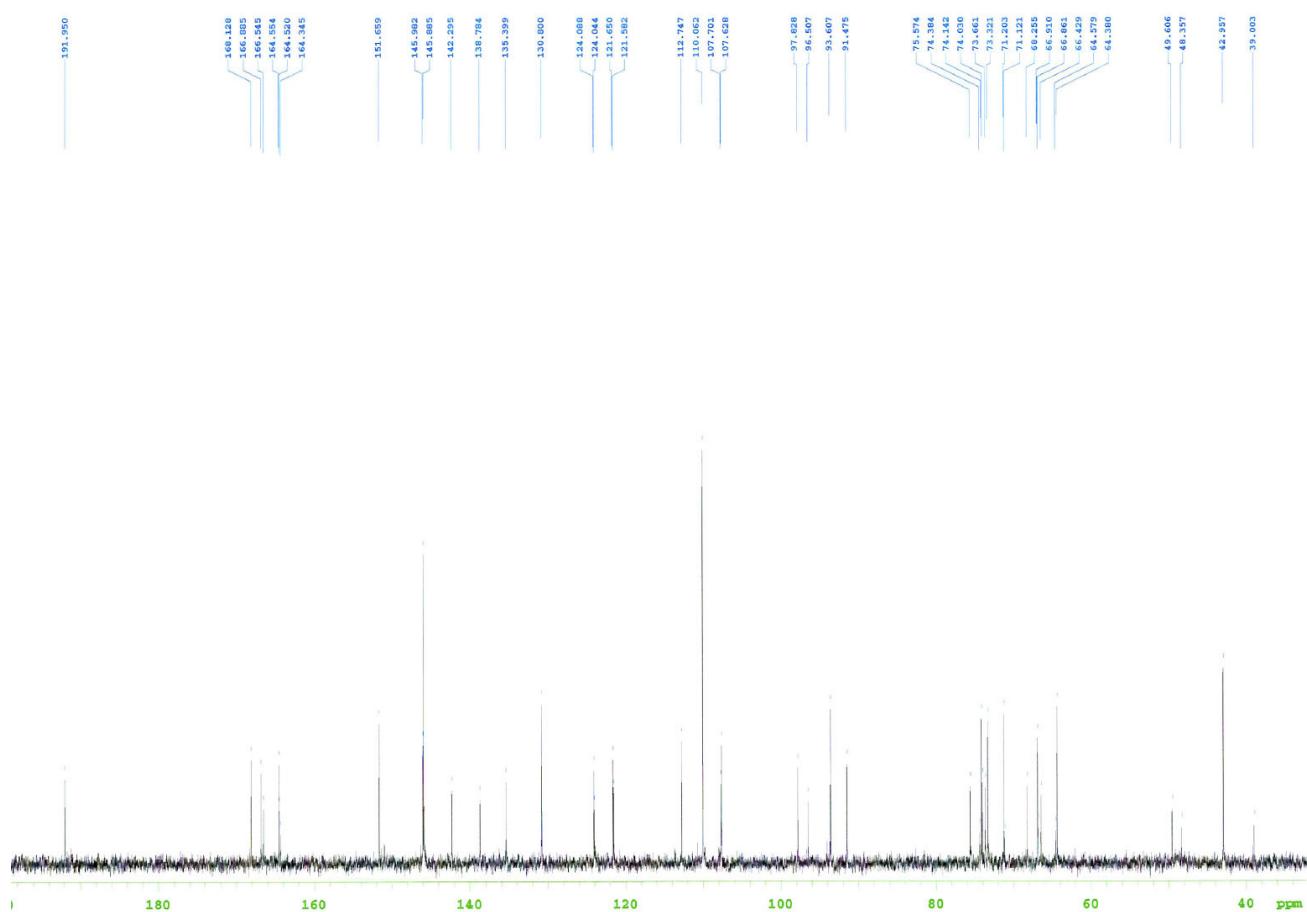


Figure S6. ^1H - ^1H COSY spectrum of 3.

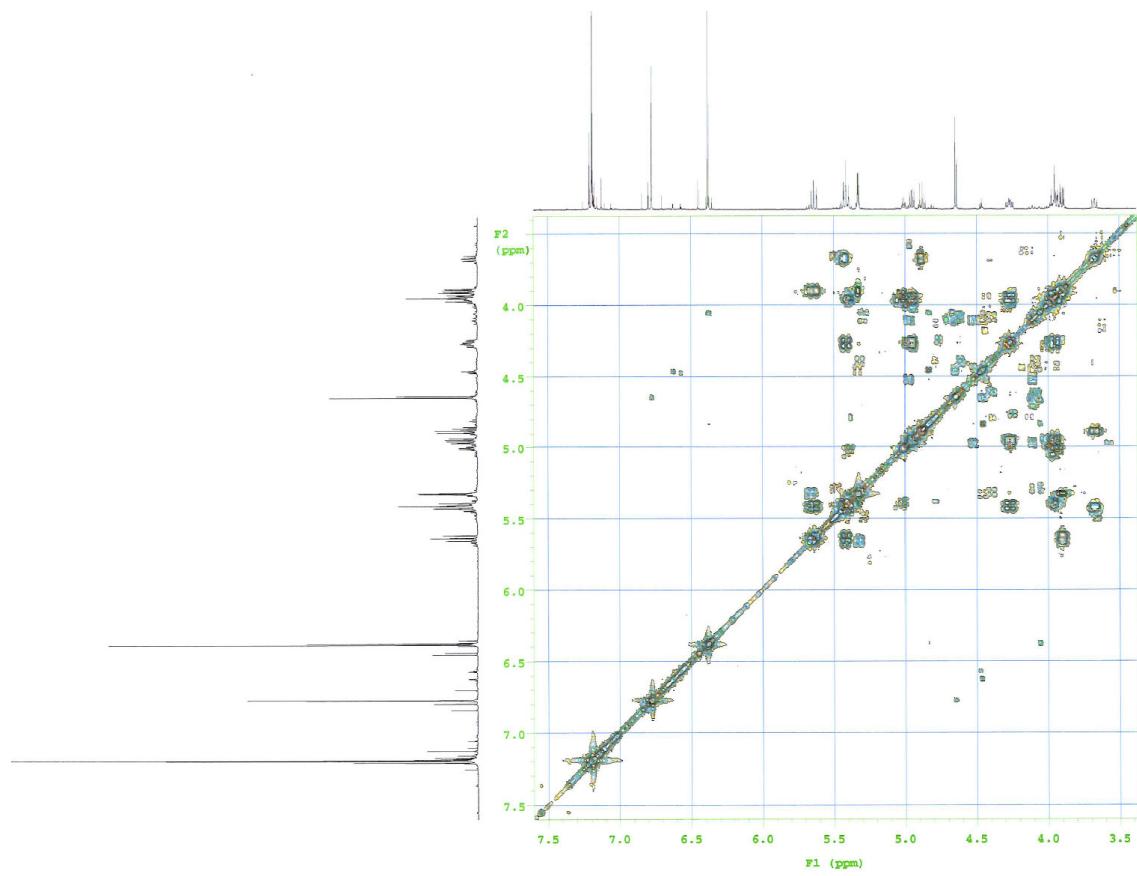


Figure S7. HSQC spectrum of 3.

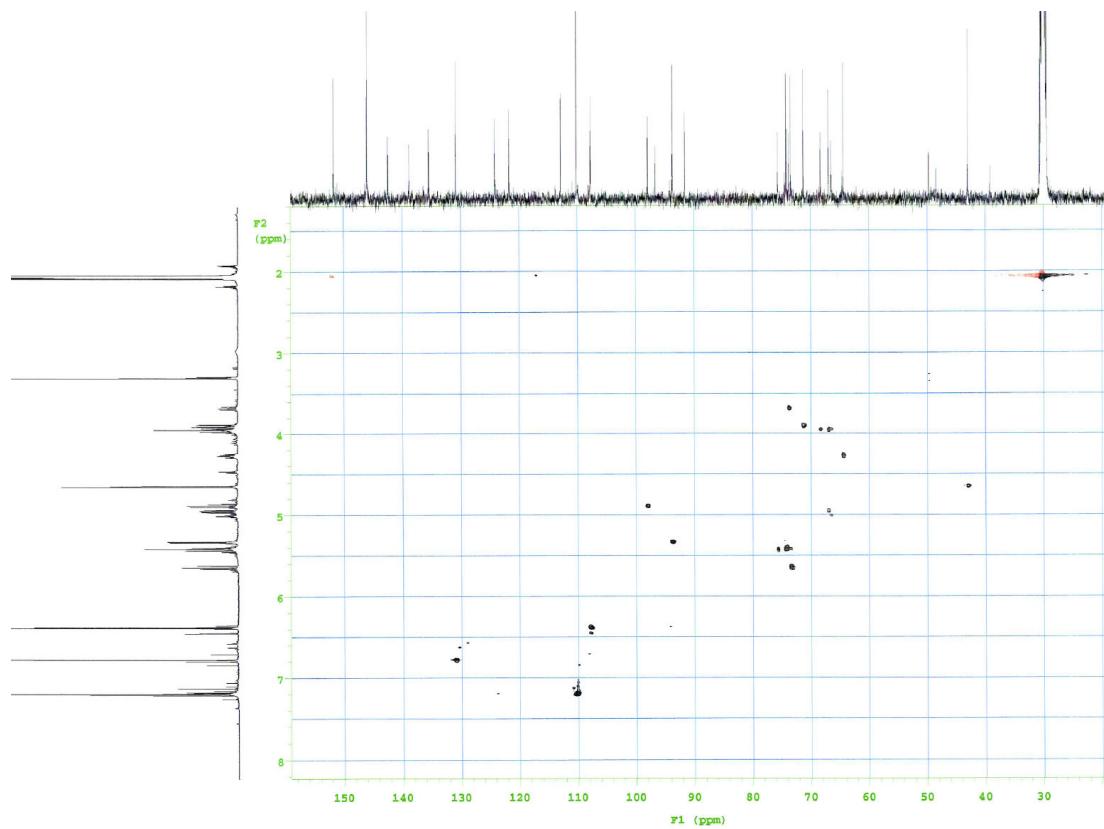


Figure S8. HMBC spectrum of **3**.

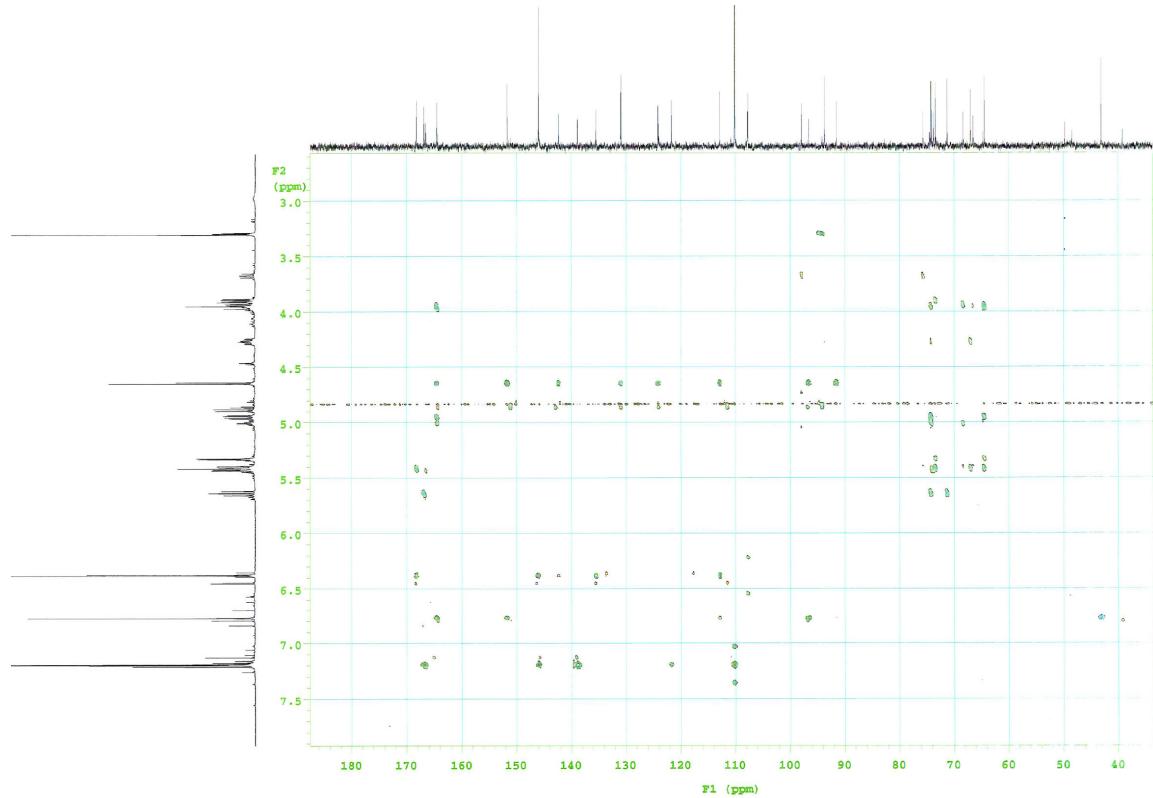


Figure S9. ¹H NMR spectrum of **11**.

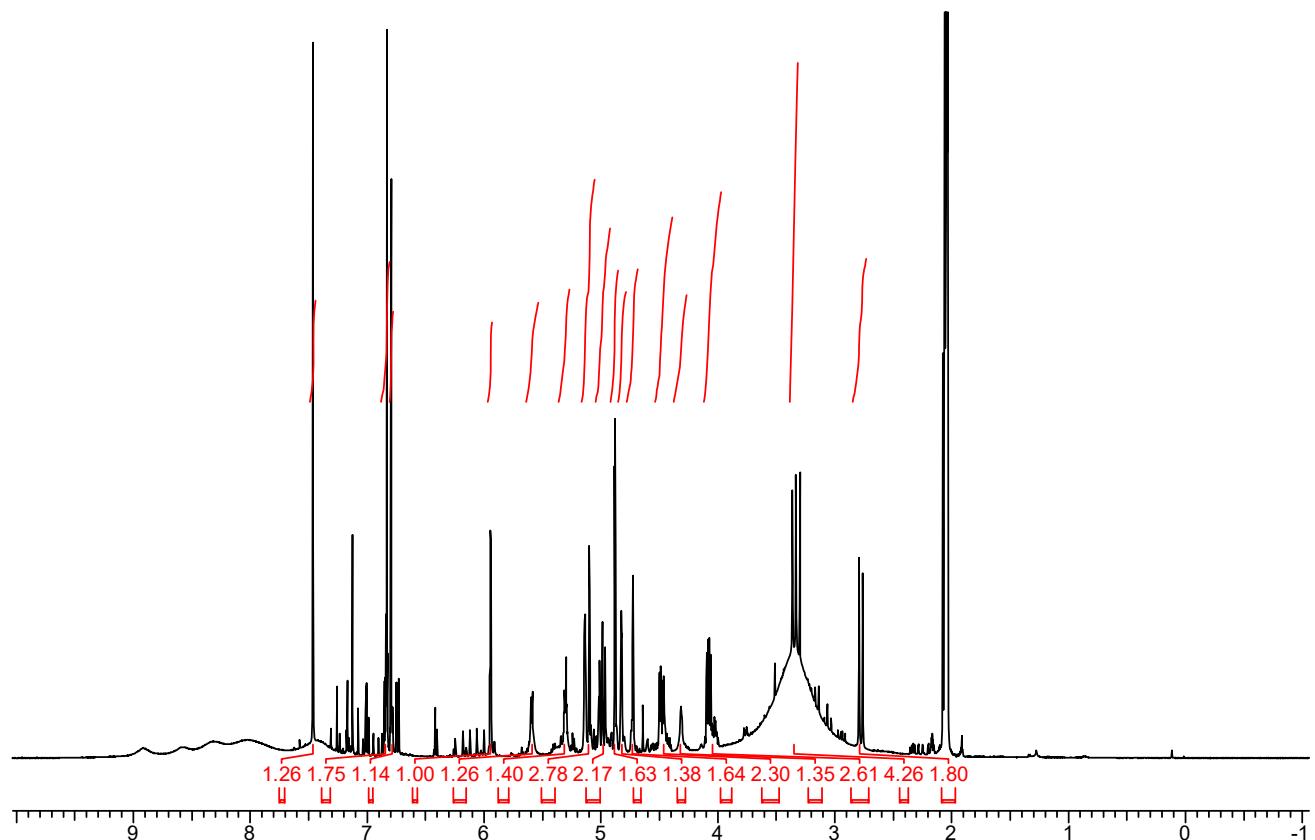


Figure S10. ^{13}C NMR spectrum of **11**.

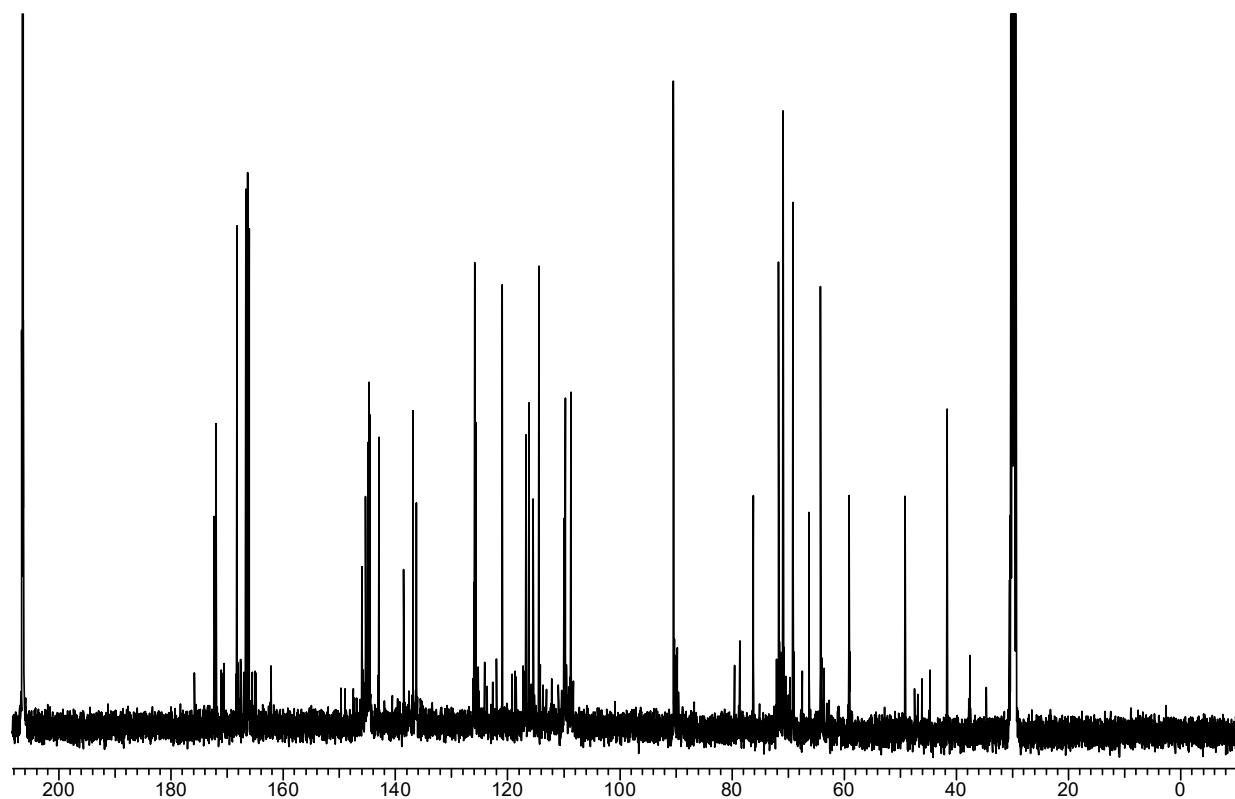


Figure S11. ^1H - ^1H COSY spectrum of **11**.

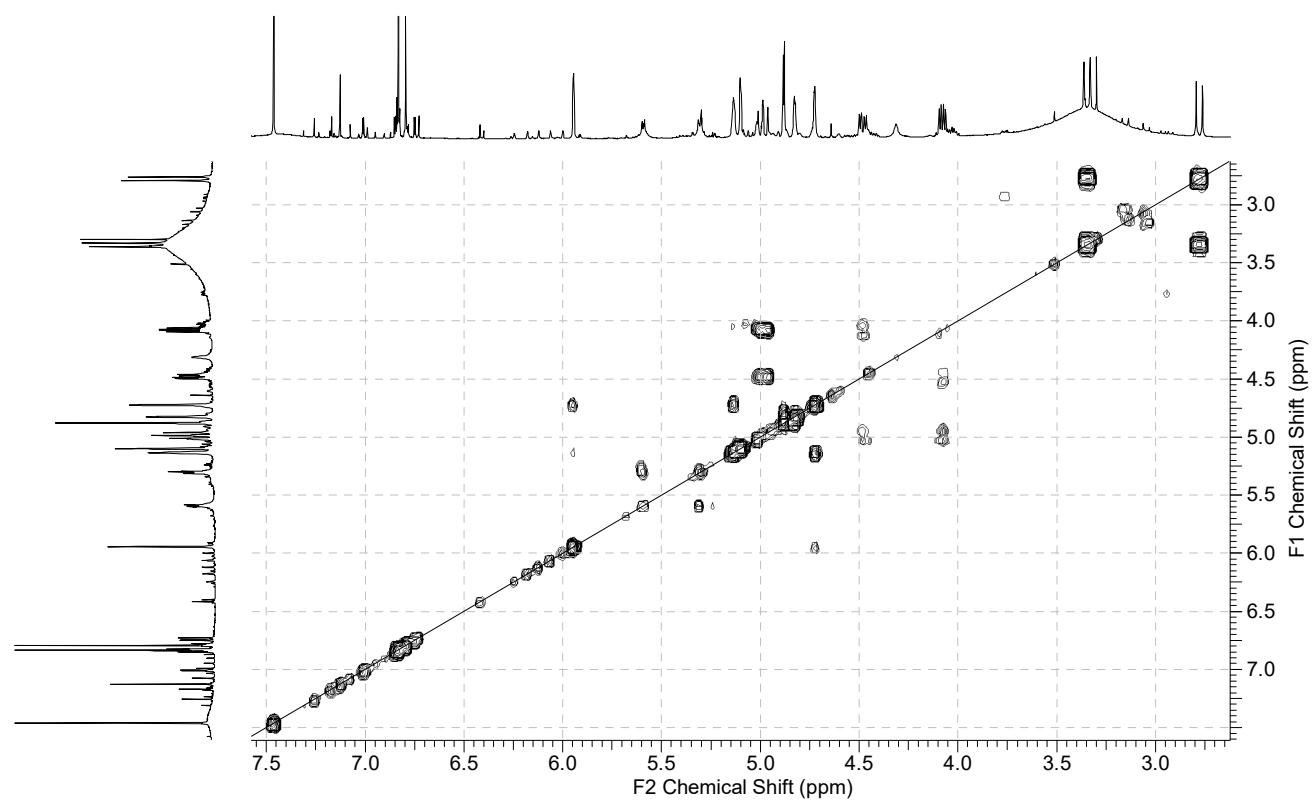


Figure S12. HSQC spectrum of **11**.

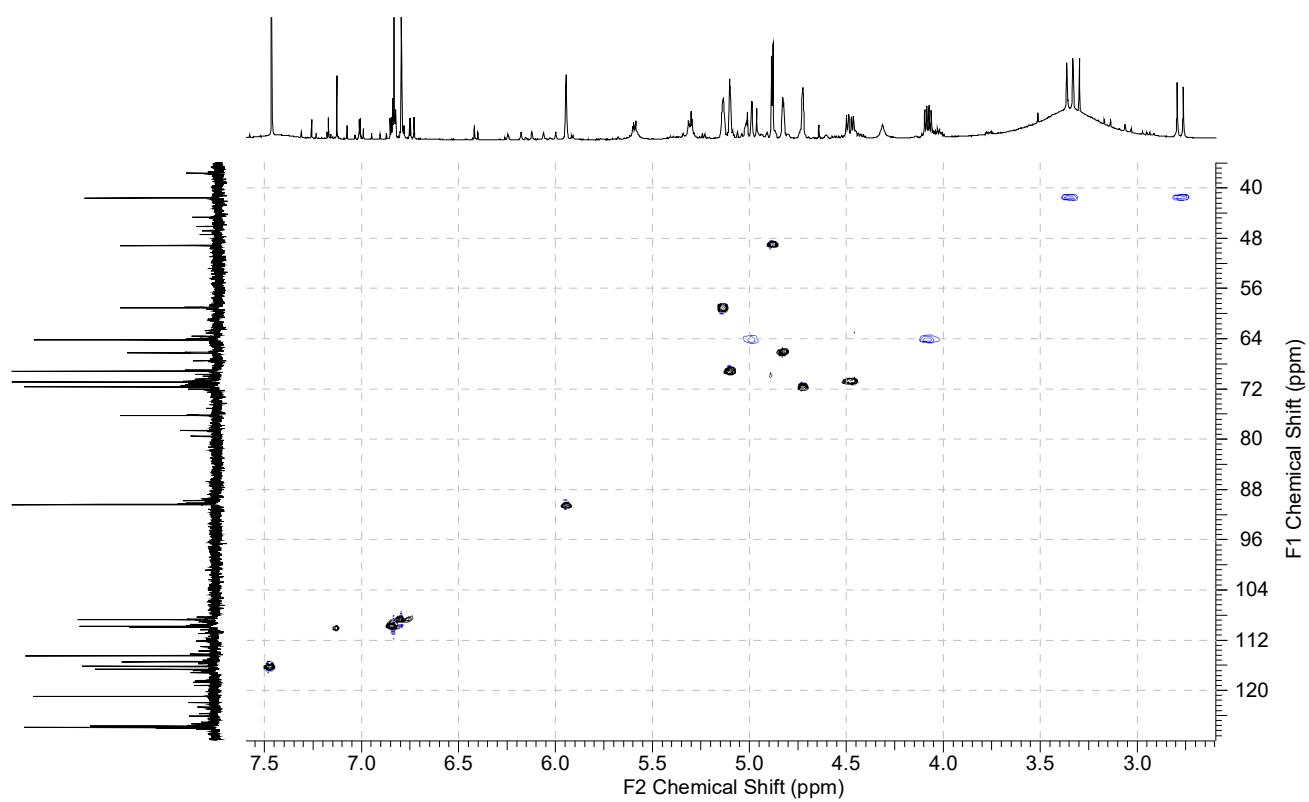


Figure S13. HMBC spectrum of **11**.

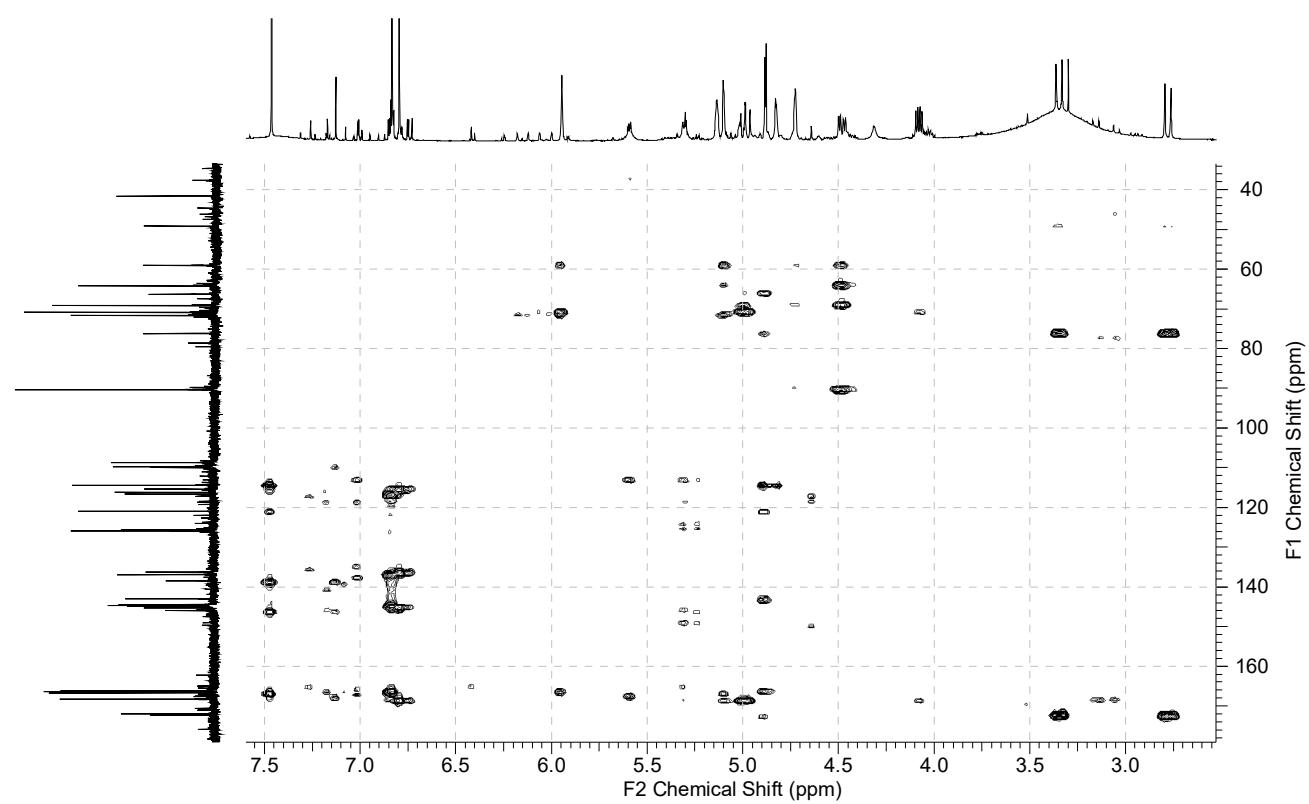


Figure S14. NOESY spectrum of **11**.

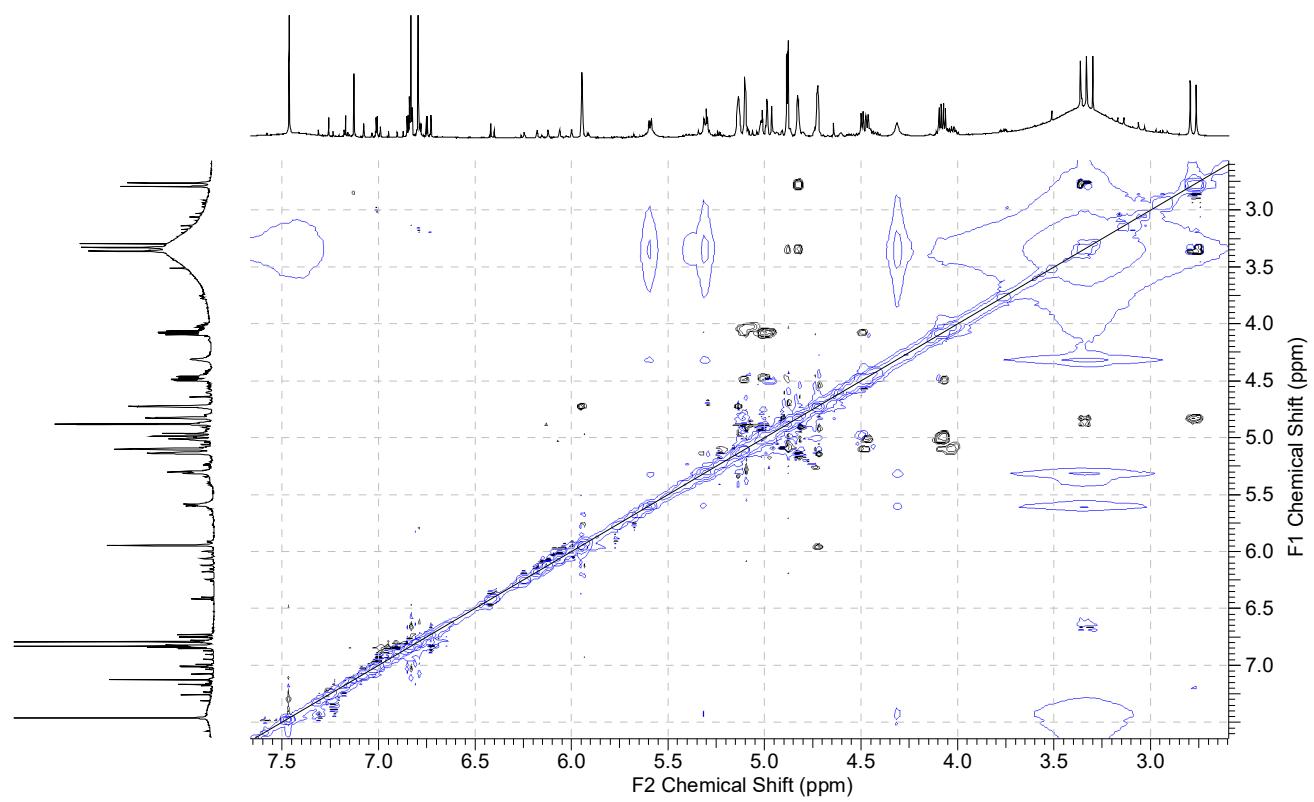


Figure S15. ^1H NMR spectrum of **7**.

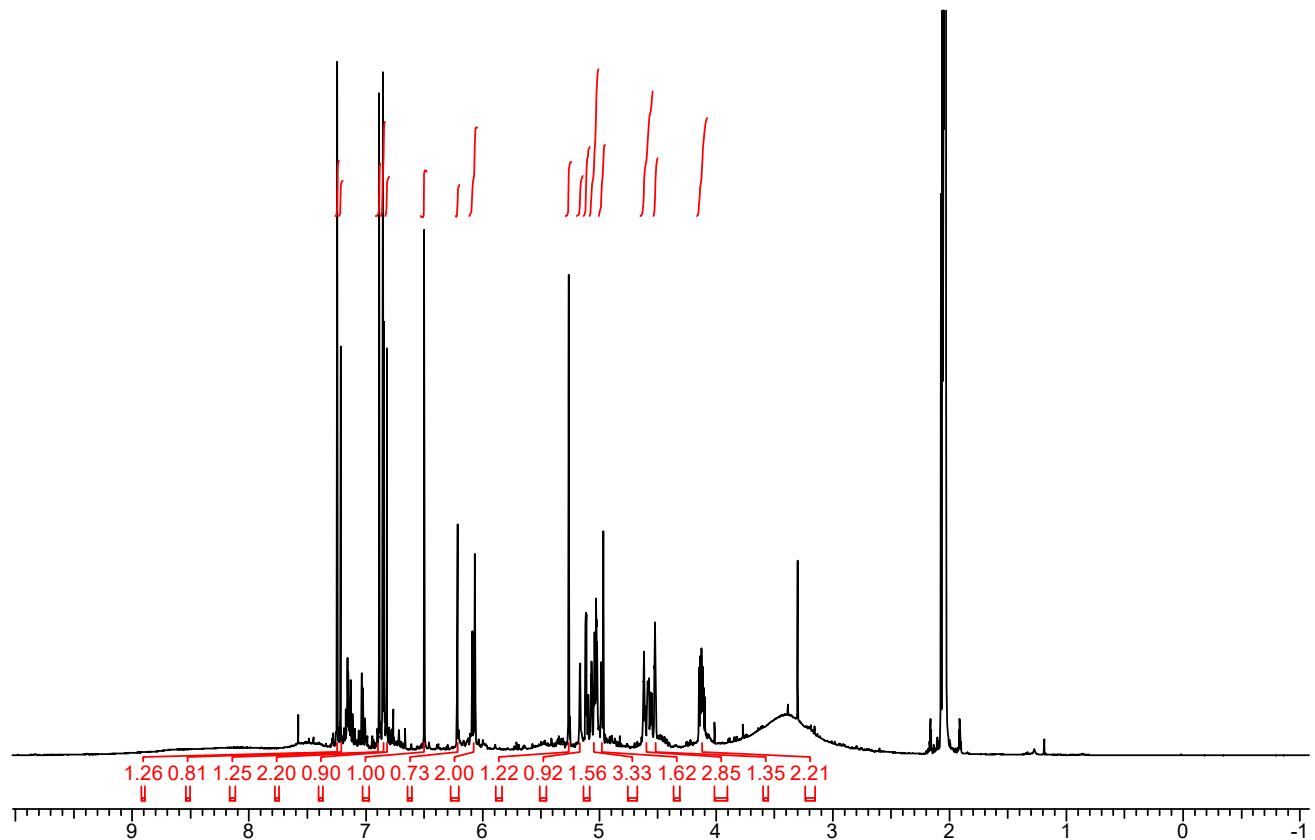


Figure S16. ^{13}C NMR spectrum of 7.

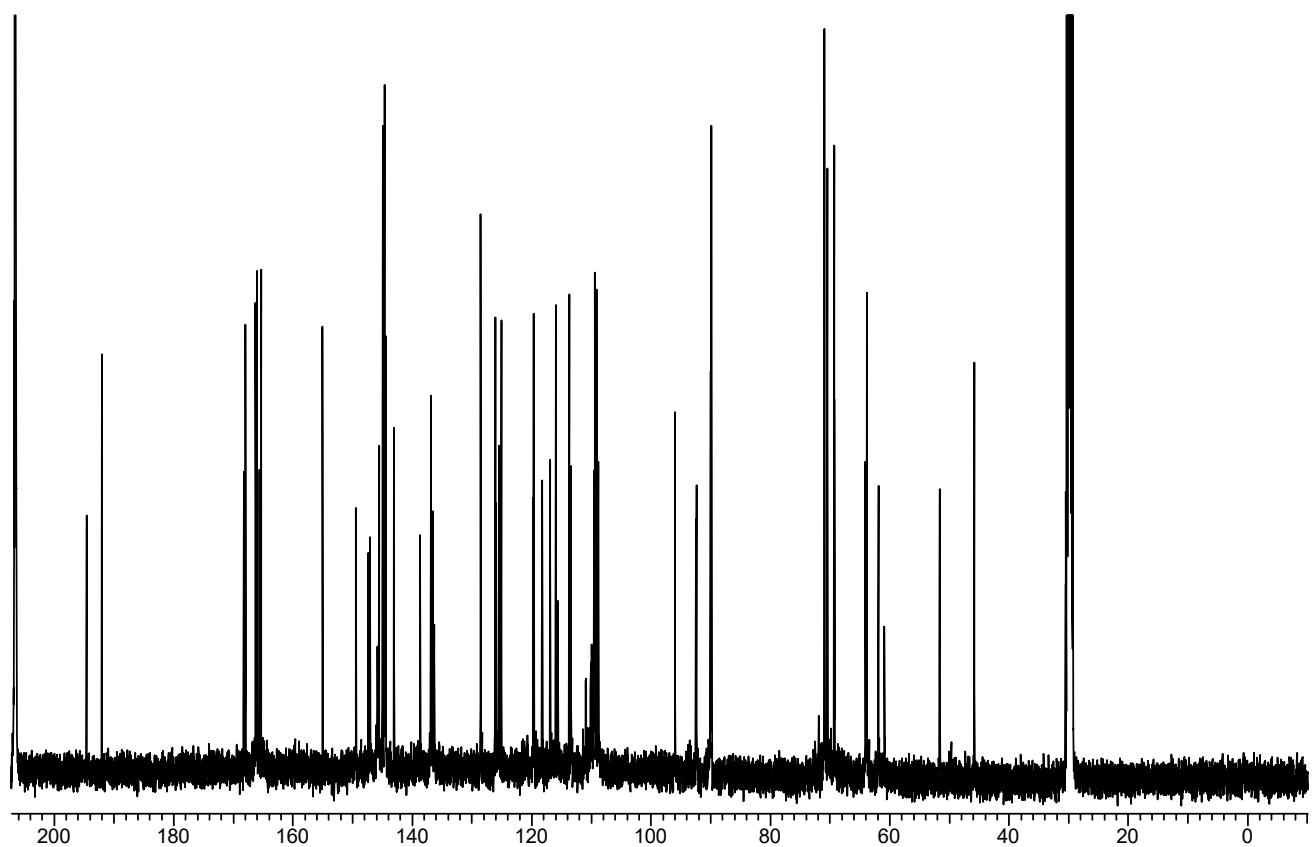


Figure S17. ^1H NMR spectrum of 7a.

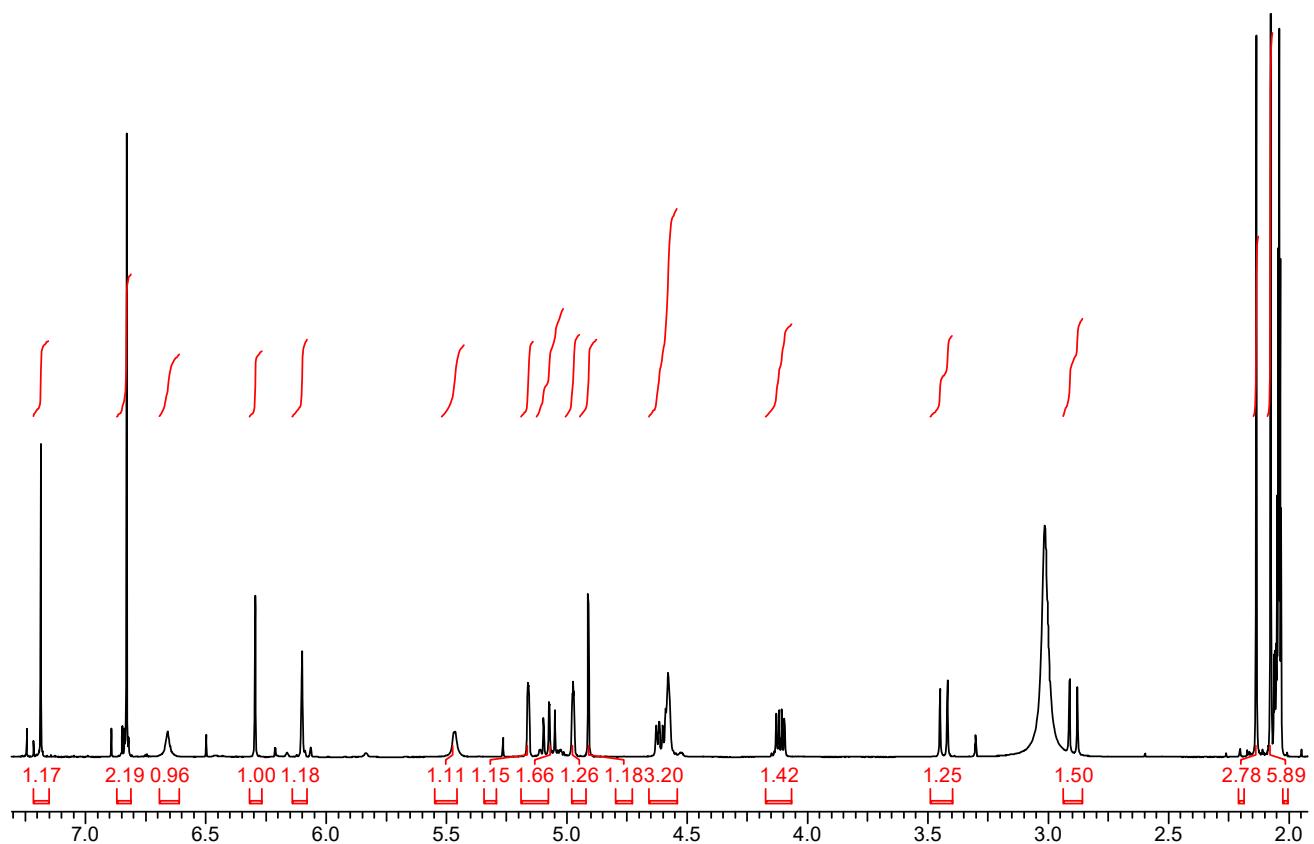


Figure S18. ^{13}C NMR spectrum of 7a.

