Cytotoxic Polyketides from the Desert Soil-Derived Fungus *Preussia fleischhakii* H231

Xiaomei Song,‡[a,b] Yu Li,‡[b] Weikang Li,‡[b] Tianxiang Zhang,[b] Yuexun Luo,[b] Meng Ren,[b] Duqiang Luo*[b] and Vuanghao Lim*[a]

[a] Advanced Medical and Dental Institute, Universiti Sains Malaysia, Bertam, Kepala Batas, Penang, Malaysia; E-mail: songxiaomei@student.usm.my

[b] College of Life Sciences, Institute of Life Science and Green Development, Hebei University, Baoding 071002, China. E-mail: duqiangluo@163.com

‡ These authors contributed equally.

Contents

The ITS sequence of *Preussia fleischhakii* H231.

TTTCCGTAGGTGAACCTGCGGAAGGATCATTATCGTGGGGCTCCGGCCCTTTCGAGAT
AGAACCCTTGCCTTTTTGAGTACCGTCCGTTTCCTCGGCAGGCTCGCCTGCCAACGGG
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GGCCGGTACGTTGGCTTCGAGCGCAGCAGAAACGCGTACTCGAGCGCTGCGGATCGG
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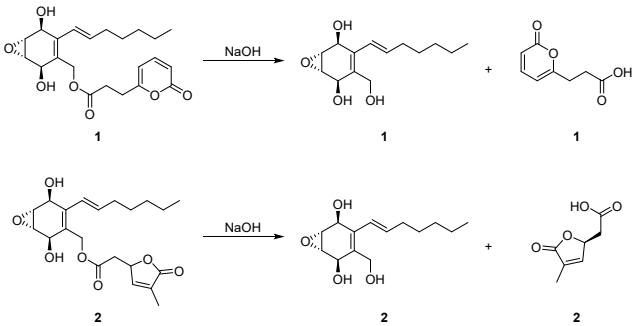
Hydrolysis of compounds 1 and 2



A solution of compound **1** (10 mg) in THF (1 mL) was cooled in an ice bath. Then 1 M NaOH aqueous solution (1 mL) was added. The reaction mixture was stirred for 0.5 h at room temperature, then re-cooled in an ice bath and acidified with 1 M HCl. The resulting mixture was extracted with AcOEt. Sequentially, the combined organic layers were washed with saturated NaCl solution, and concentrated under reduced pressure. Subsequent purification of the residue by HPLC afforded compounds **1'** and **2'**.

Compound **2** was subjected to hydrolysis under identical conditions as described for compound **1**. Compounds **1'** and **3'** were obtained from the HPLC separation of the resulting residue.

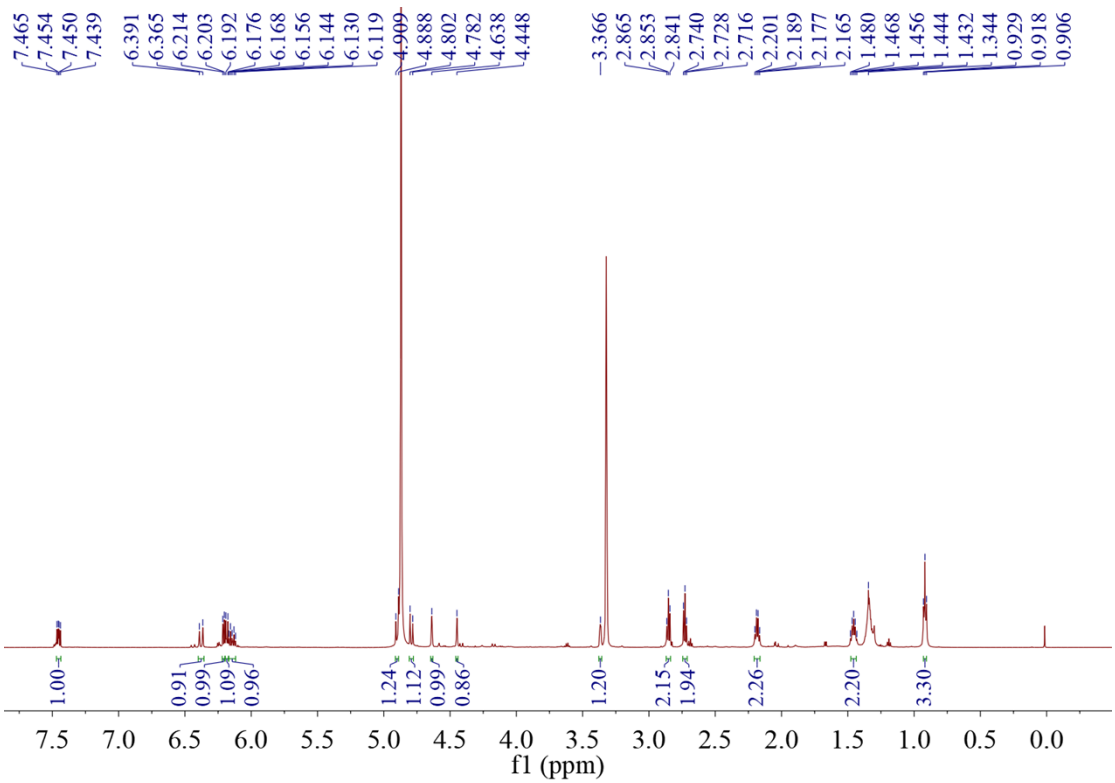


Fig. S1 The ^{1}H-NMR spectrum of compound **1** in CD_3OD (600 MHz)

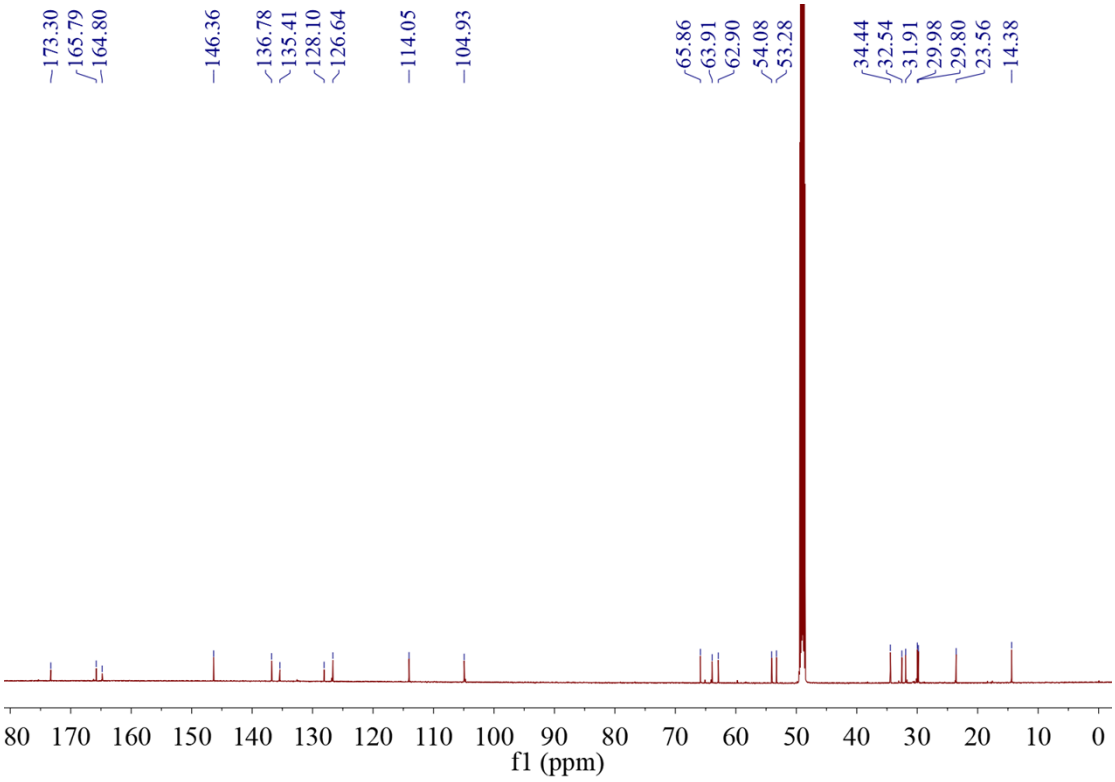


Fig. S2 The ^{13}C-NMR spectrum of compound **1** in CD_3OD (150 MHz)

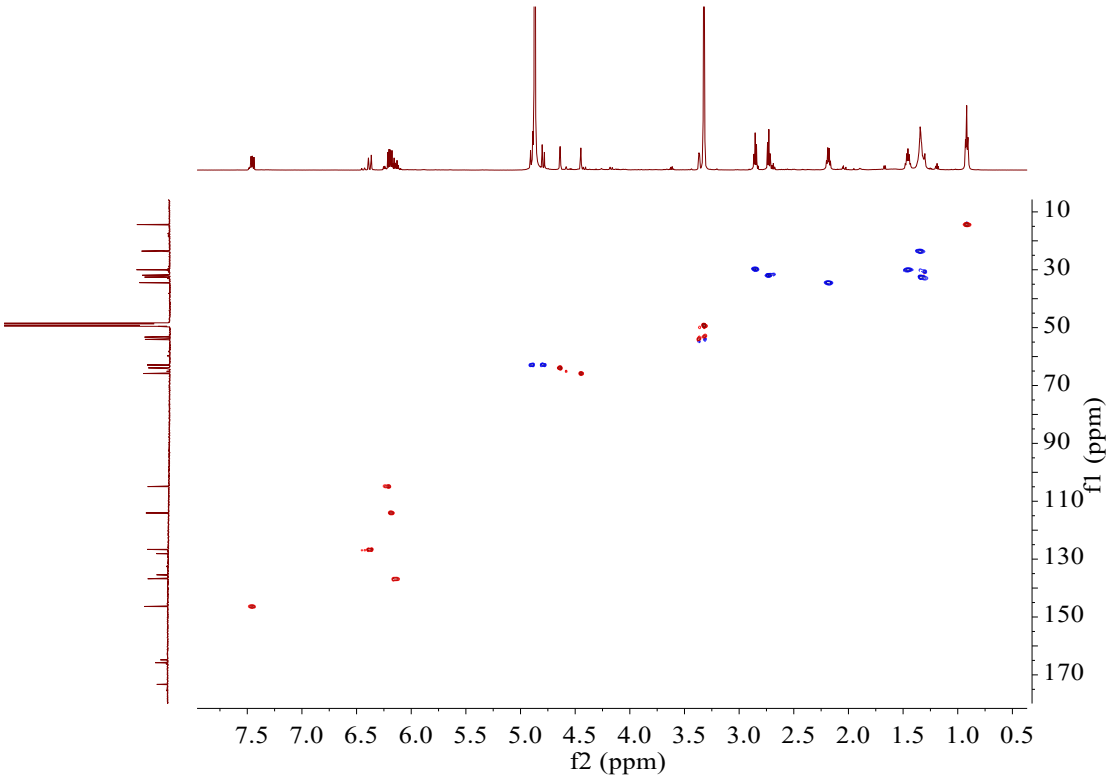


Fig. S3 The HSQC spectrum of compound **1** in CD_3OD (600 MHz)

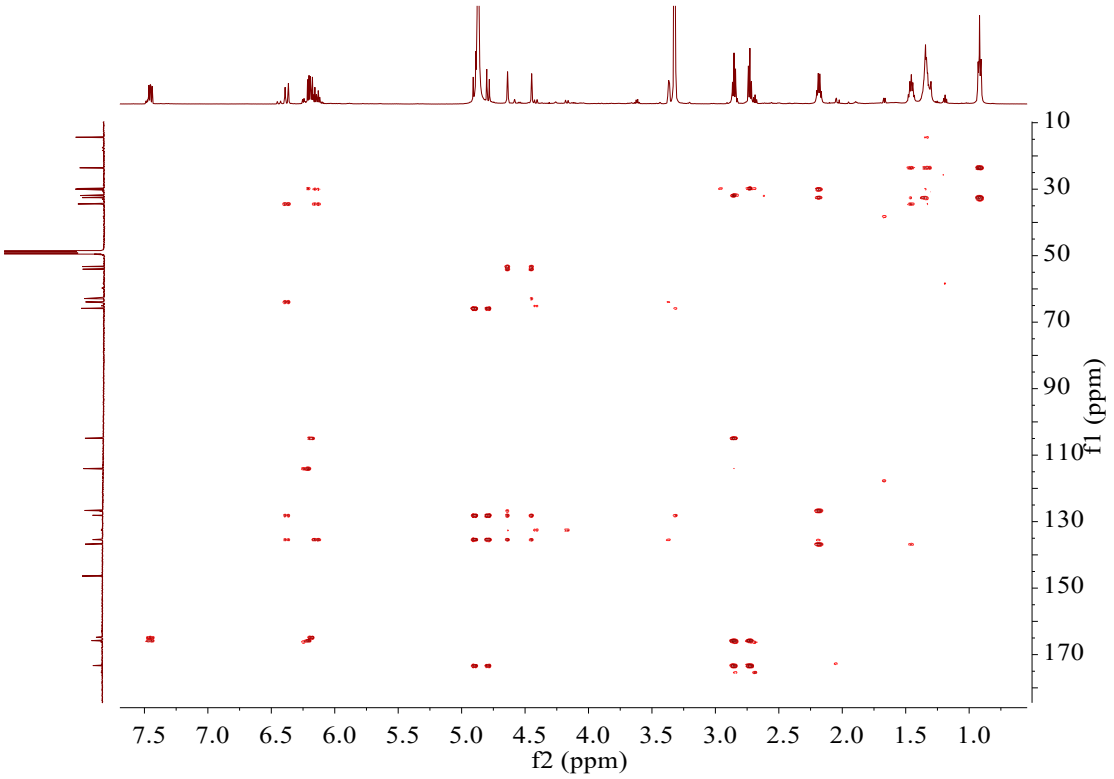


Fig. S4 The HMBC spectrum of compound **1** in CD_3OD (600 MHz)

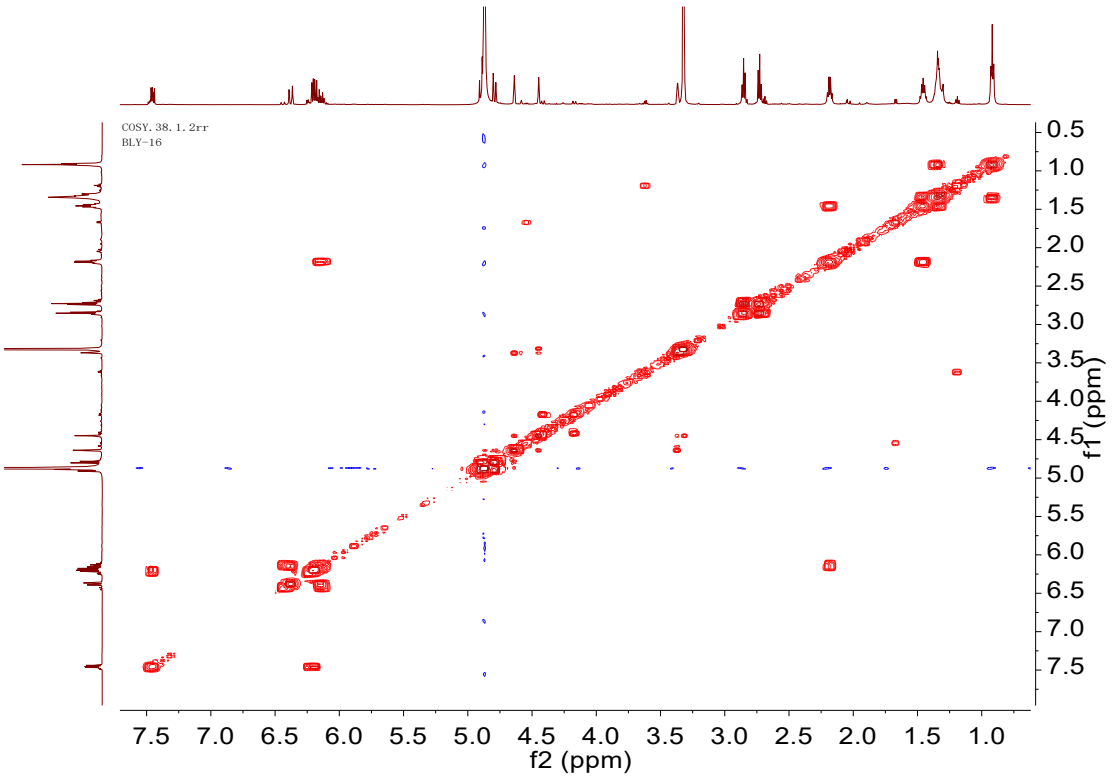


Fig. S5 The ^{1}H-^{1}H COSY spectrum of compound **1** in CD_3OD (600 MHz)

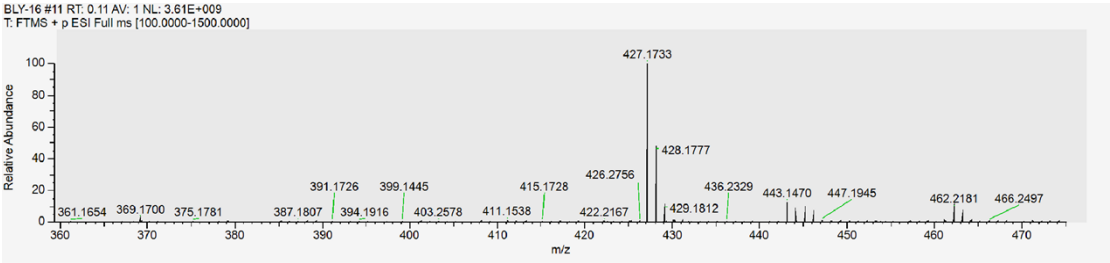


Fig. S6 The HERESIMS spectrum of compound **1**

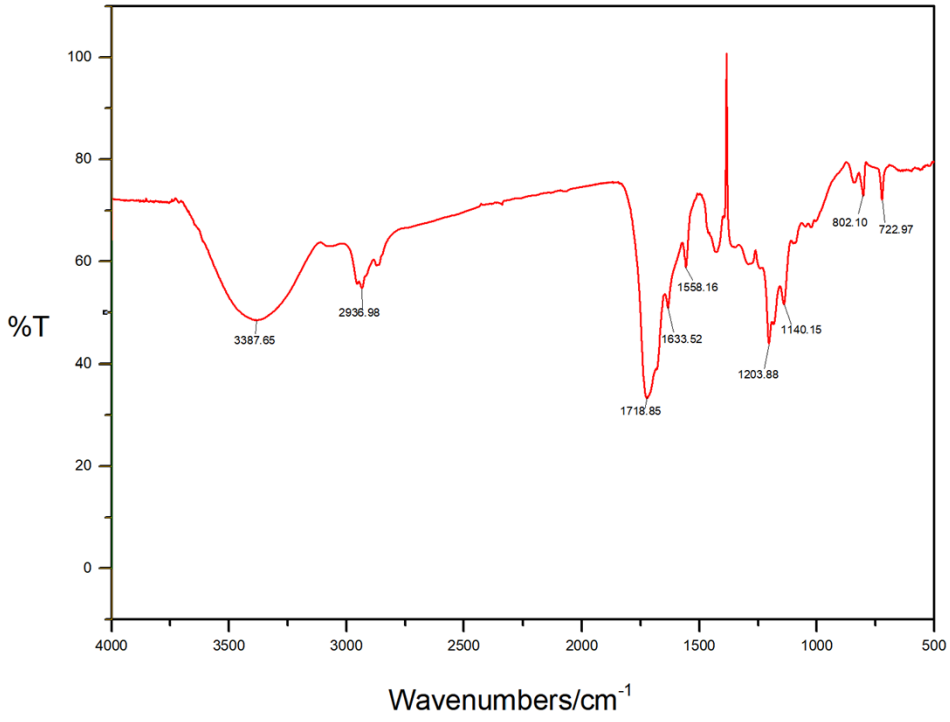


Fig. S7 The IR spectrum of compound **1**

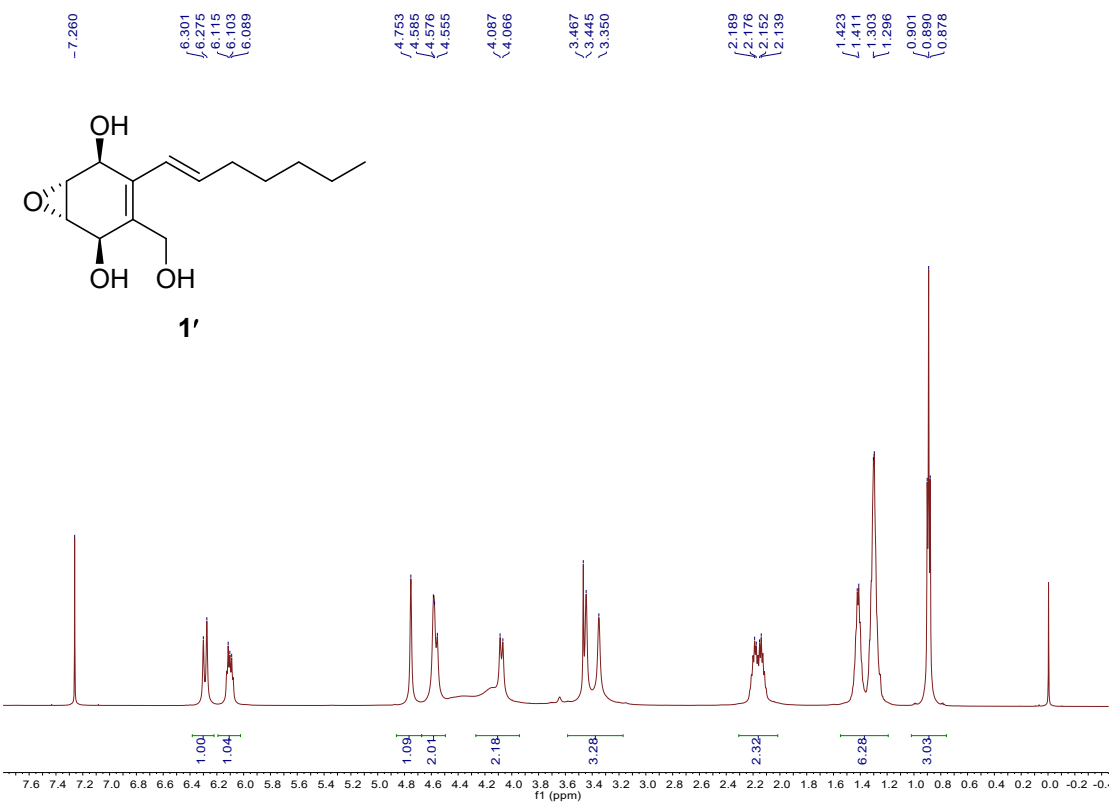


Fig. S8 The ^{1}H-NMR spectrum of compound **1′** in $CDCl_3$ (600 MHz)

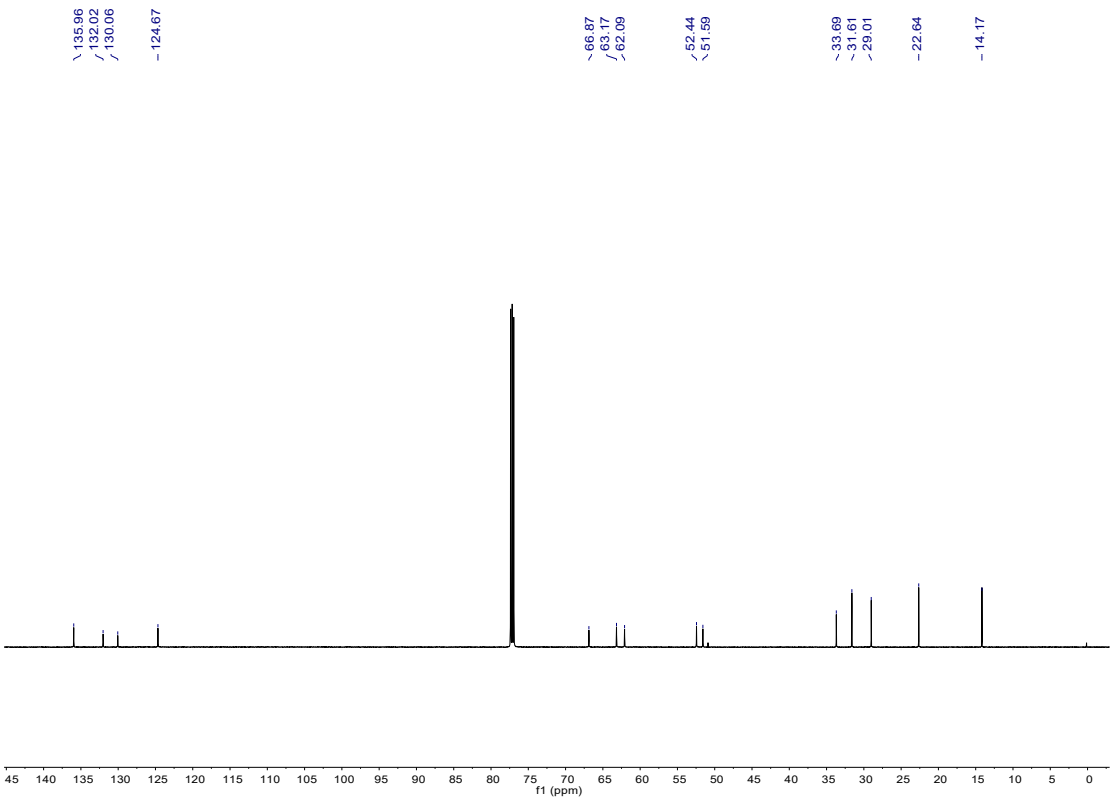


Fig. S9 The ^{13}C-NMR spectrum of compound **1′** in $CDCl_3$ (150 MHz)

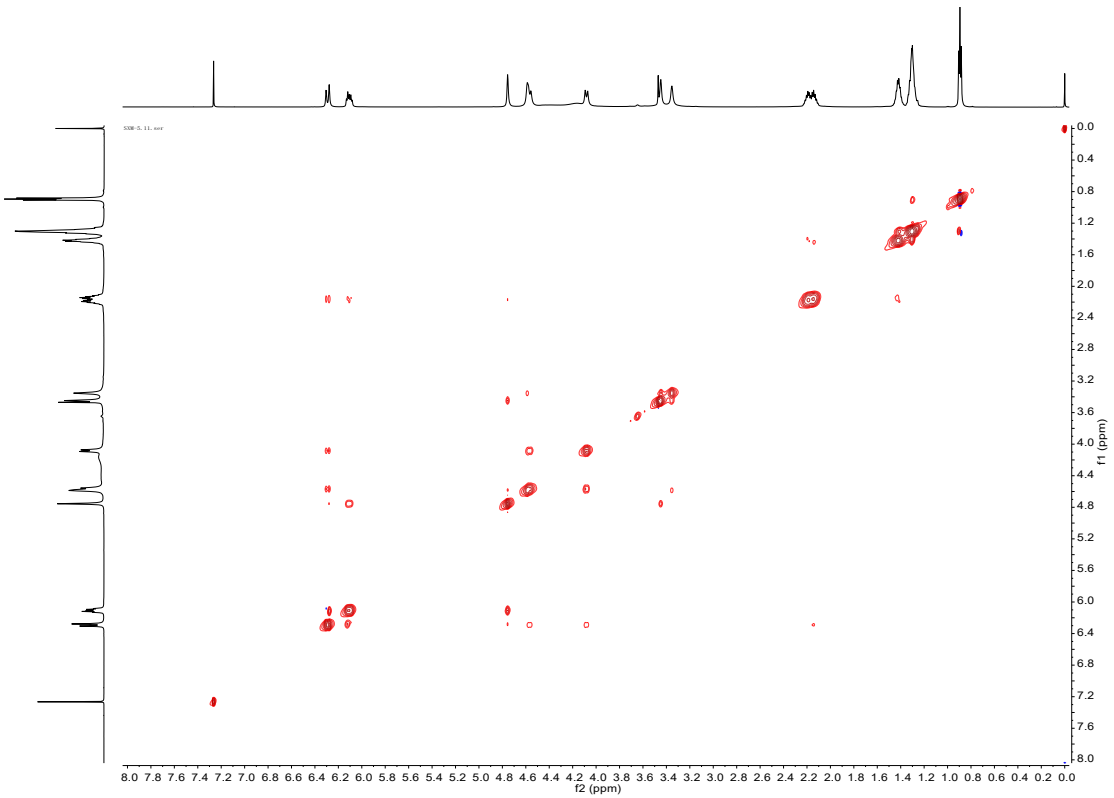


Fig. S10 The NOESY spectrum of compound **1′** in $CDCl_3$ (600 MHz)

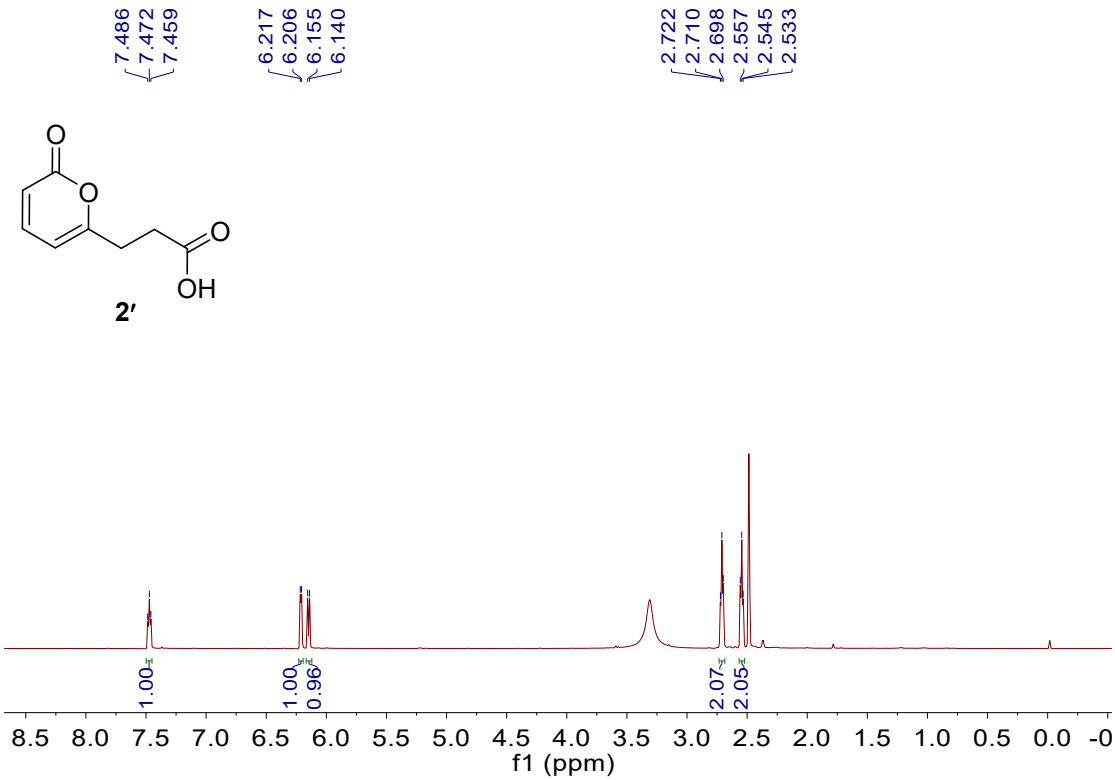


Fig. S11 The ^{1}H-NMR spectrum of compound **2′** in DMSO-d_6 (600 MHz)

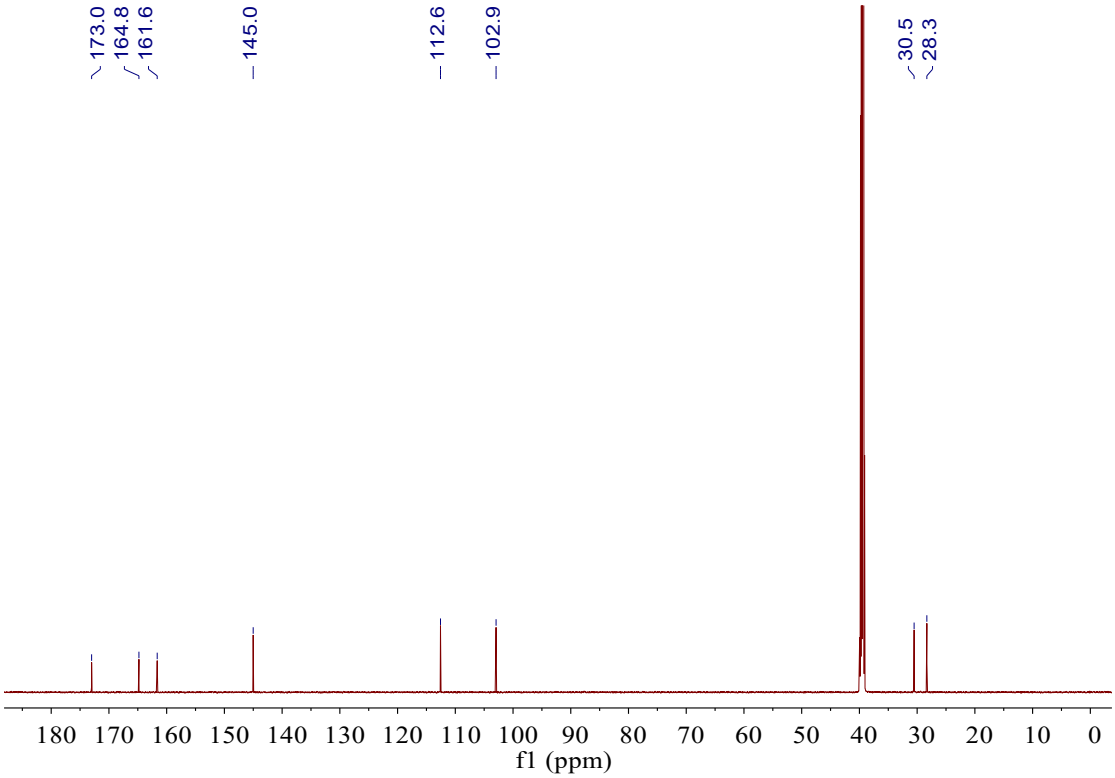


Fig. S12 The ^{13}C-NMR spectrum of compound **2′** in DMSO-d_6 (150 MHz)

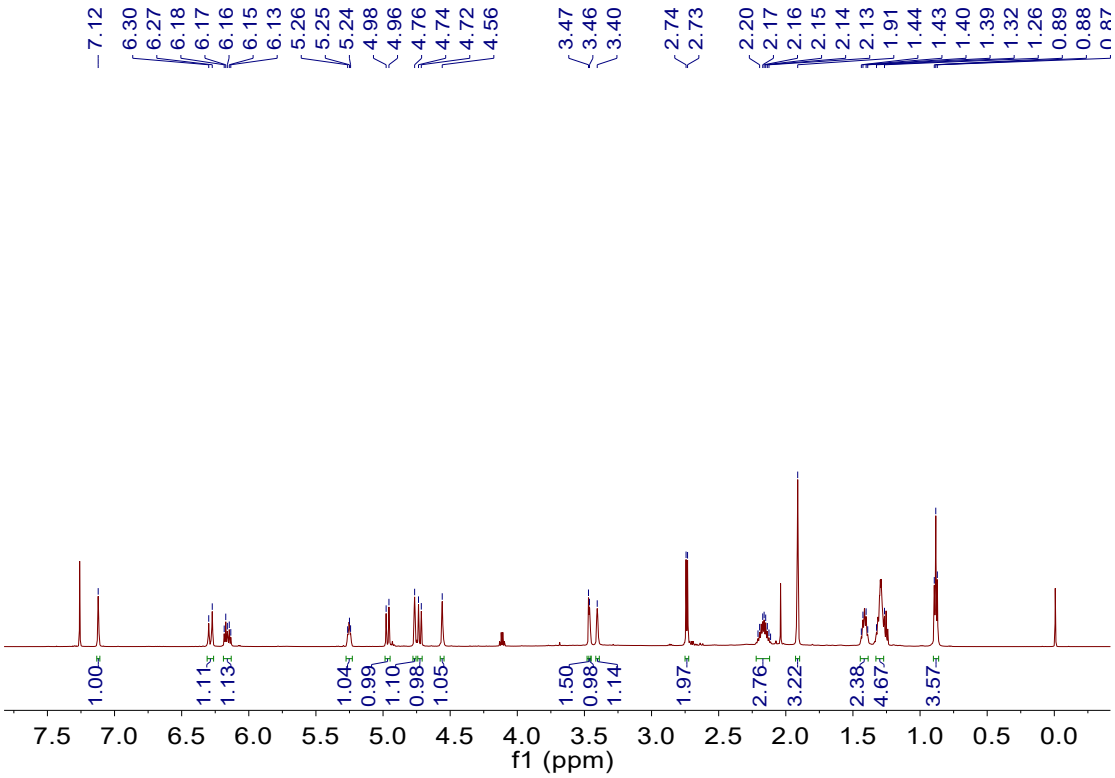


Fig. S13 The ^{1}H-NMR spectrum of compound **2** in CD_3OD (600 MHz)

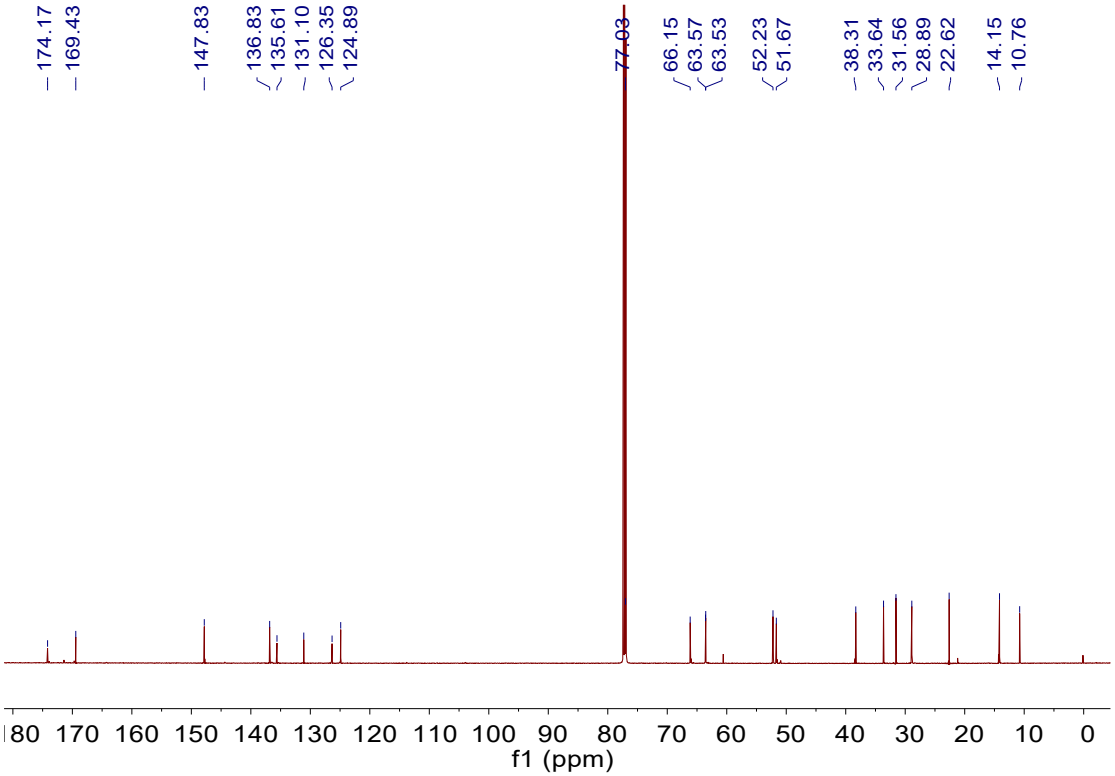


Fig. S14 The ^{13}C-NMR spectrum of compound **2** in CD_3OD (150 MHz)

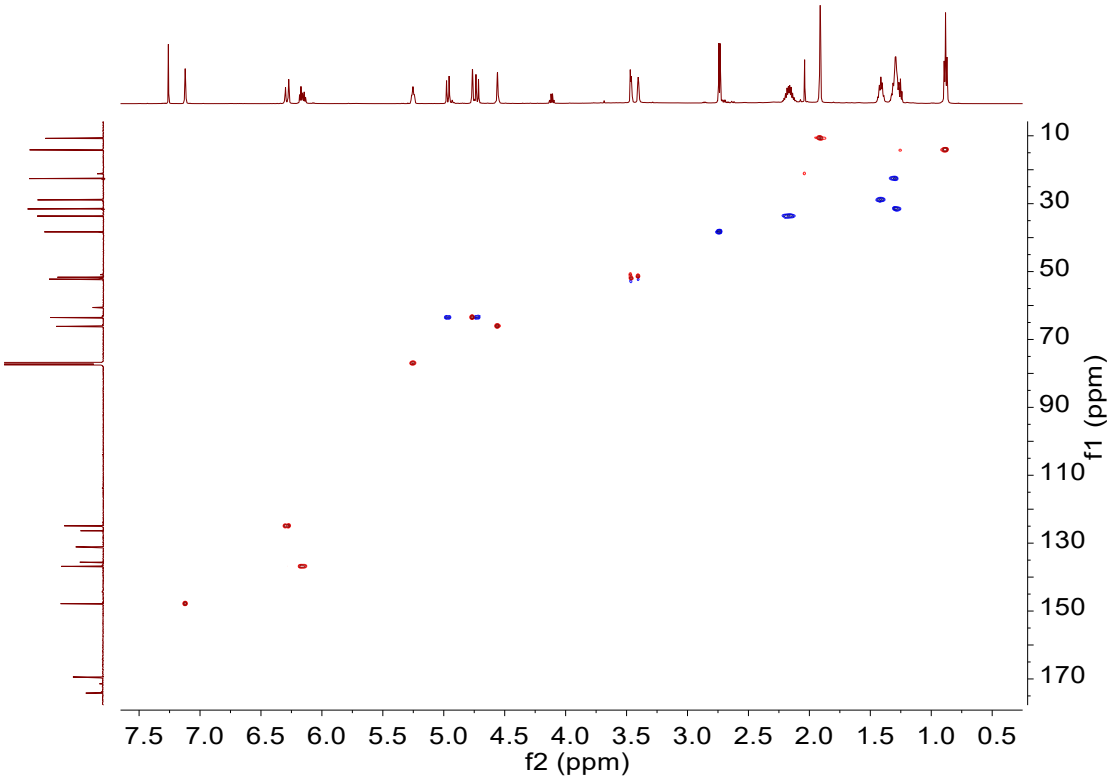


Fig. S15 The HSQC spectrum of compound **2** in CD_3OD (600 MHz)

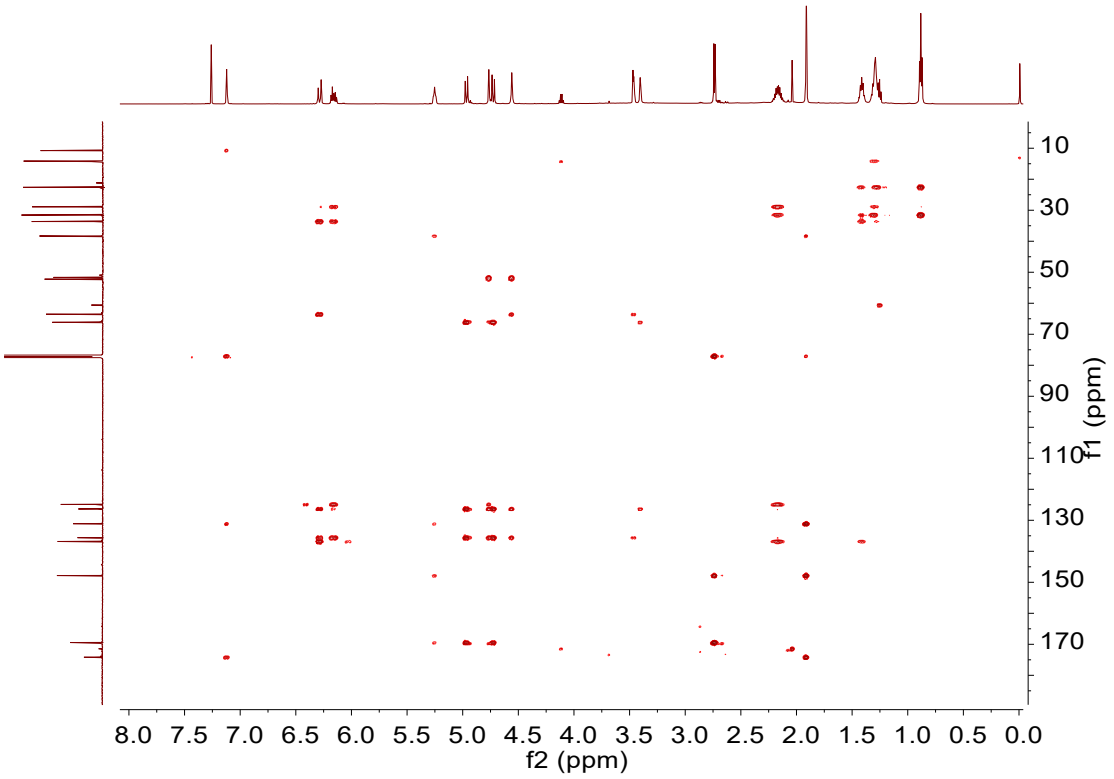


Fig. S16 The HMBC spectrum of compound **2** in CD_3OD (600 MHz)

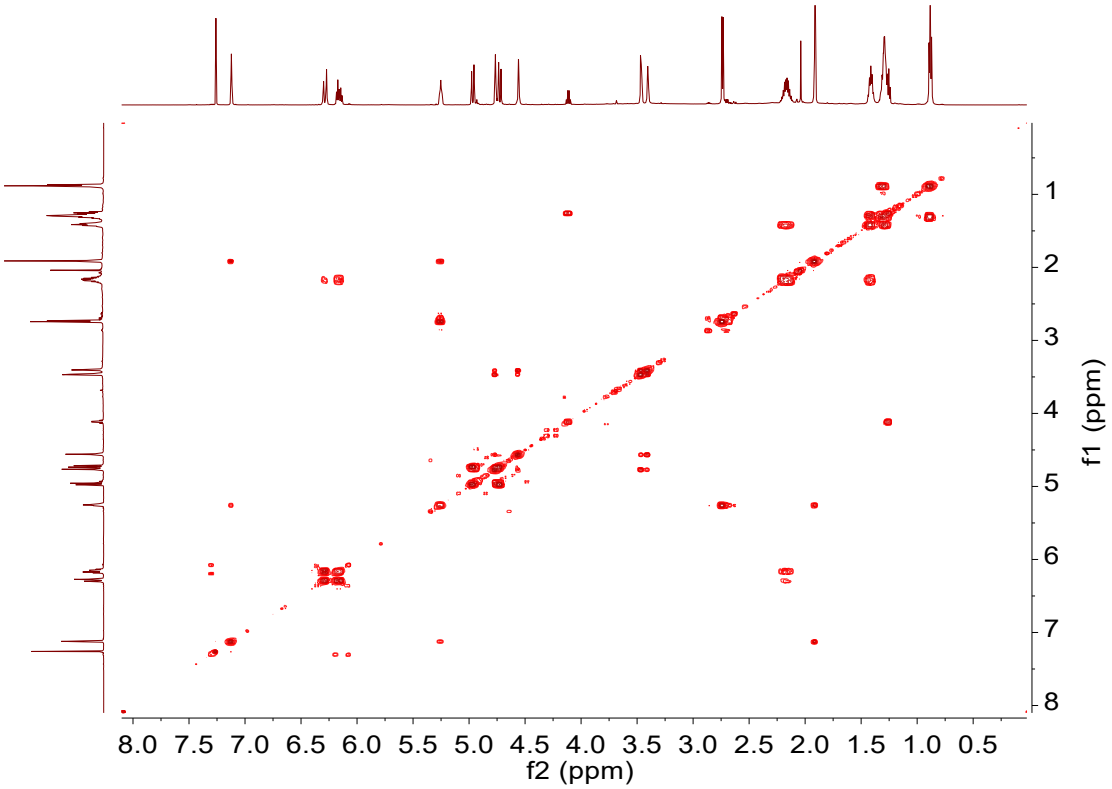


Fig. S17 The ^{1}H-^{1}H COSY spectrum of compound **2** in CD_3OD (600 MHz)

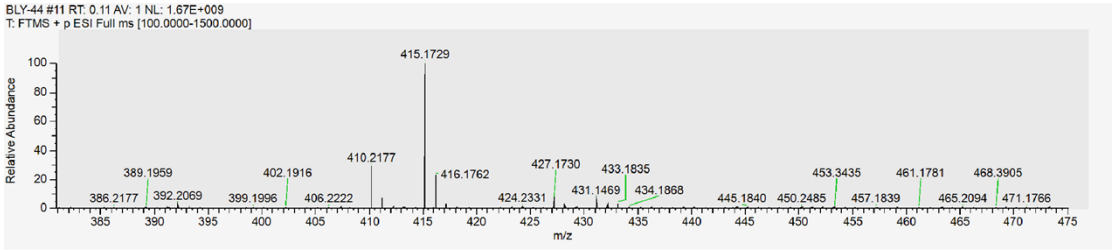


Fig. S18 The HERESIMS spectrum of compound **2**

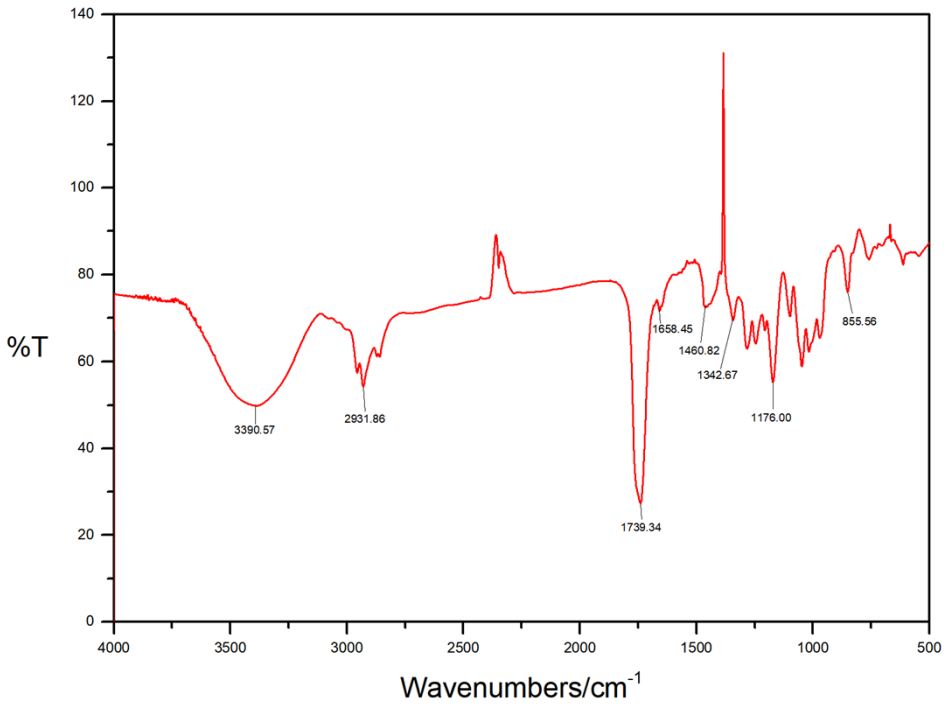


Fig. S19 The IR spectrum of compound **2**

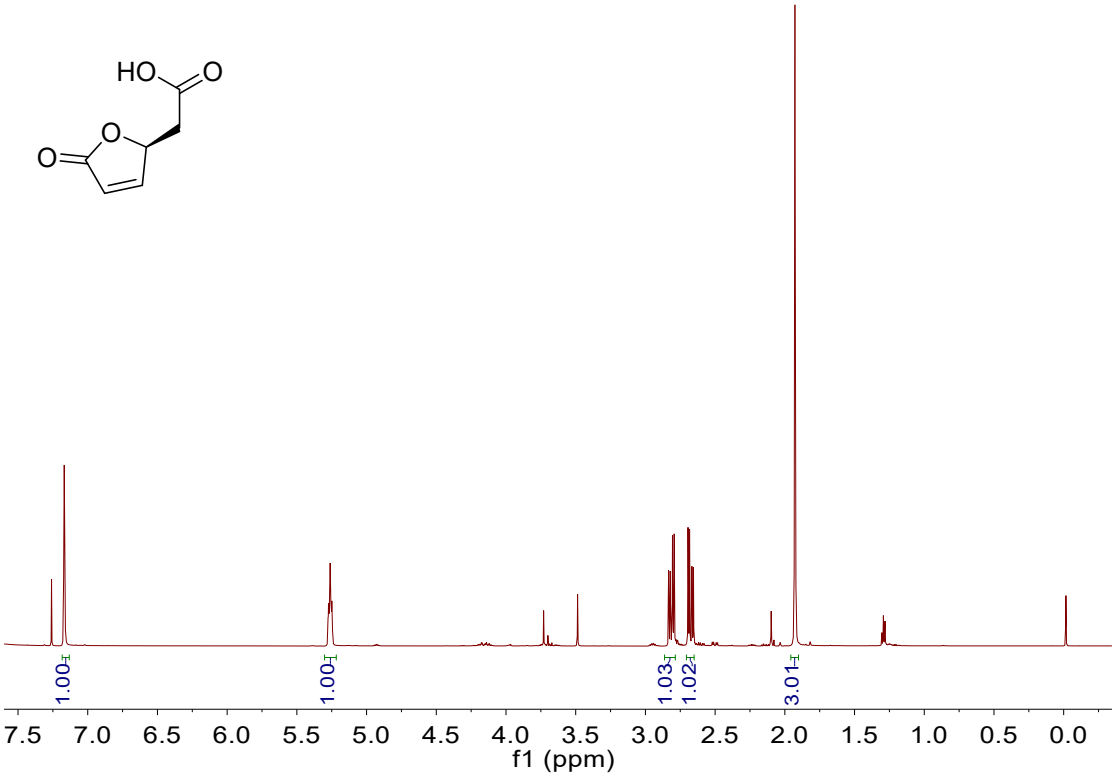


Fig. S20 The ^{1}H-NMR spectrum of compound **3′** in CD_3Cl_3 (600 MHz)

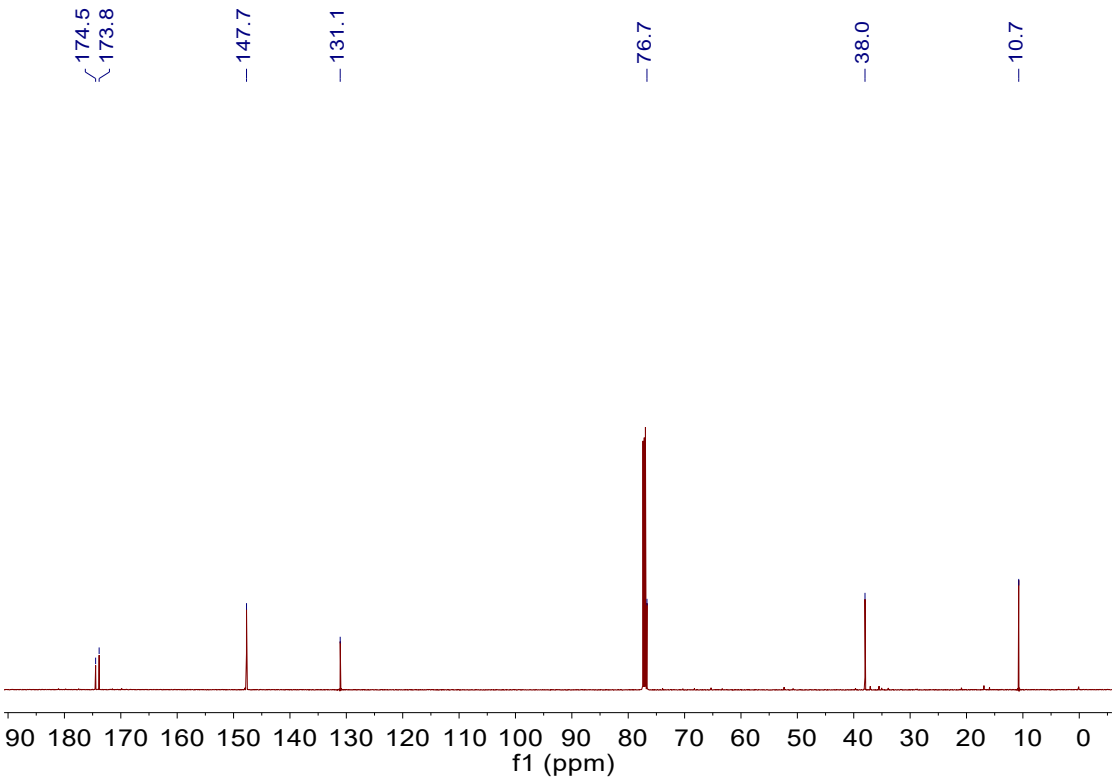


Fig. S21 The ^{13}C-NMR spectrum of compound **3′** in CD_3Cl_3 (150 MHz)

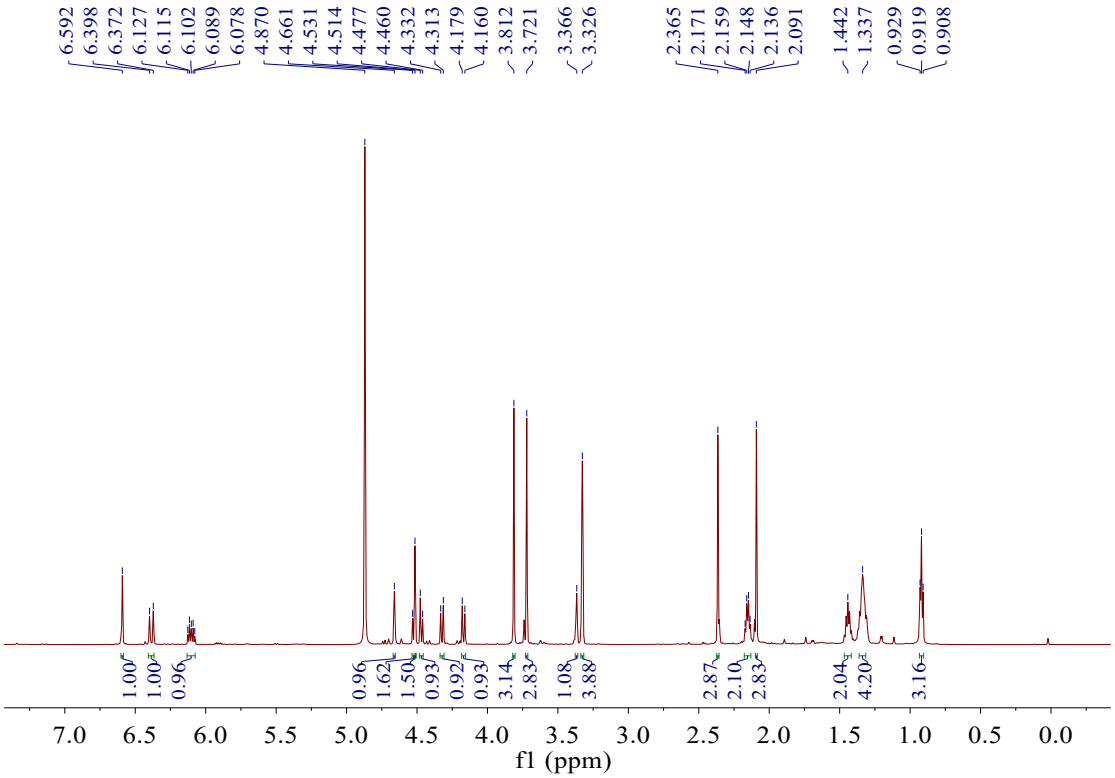


Fig. S22 The ^{1}H-NMR spectrum of compound **3** in $CDCl_3$ (600 MHz)

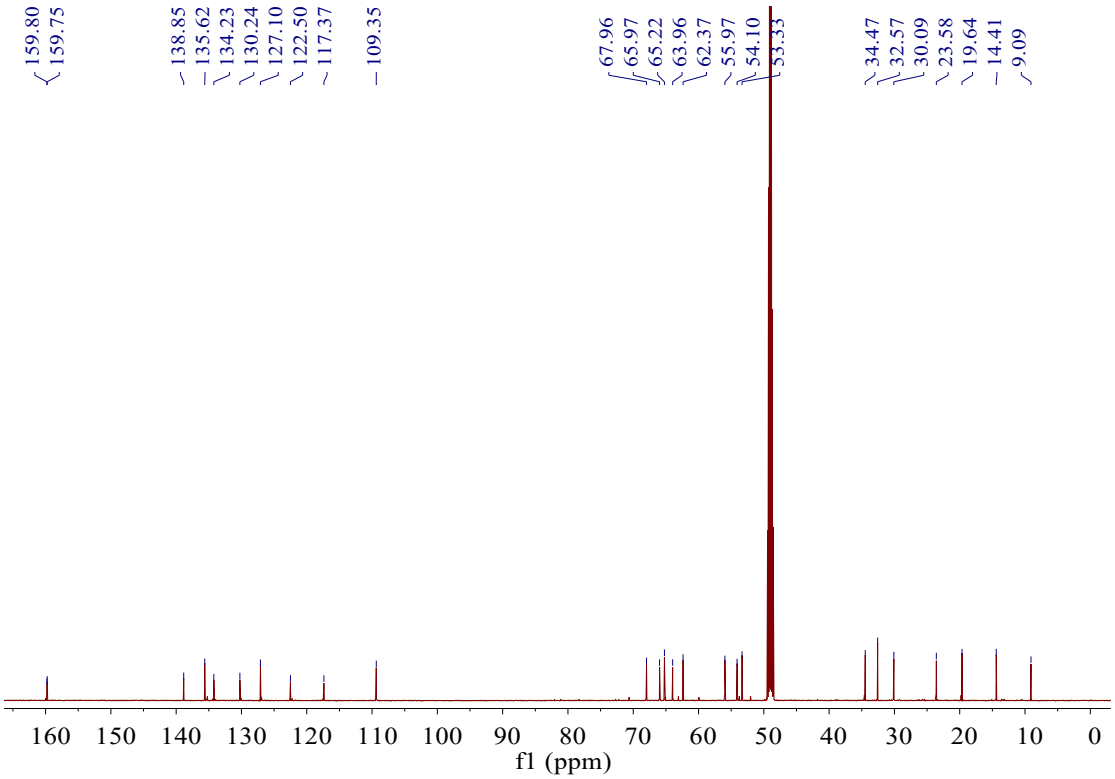


Fig. S23 The ^{13}C-NMR spectrum of compound **3** in $CDCl_3$ (150 MHz)

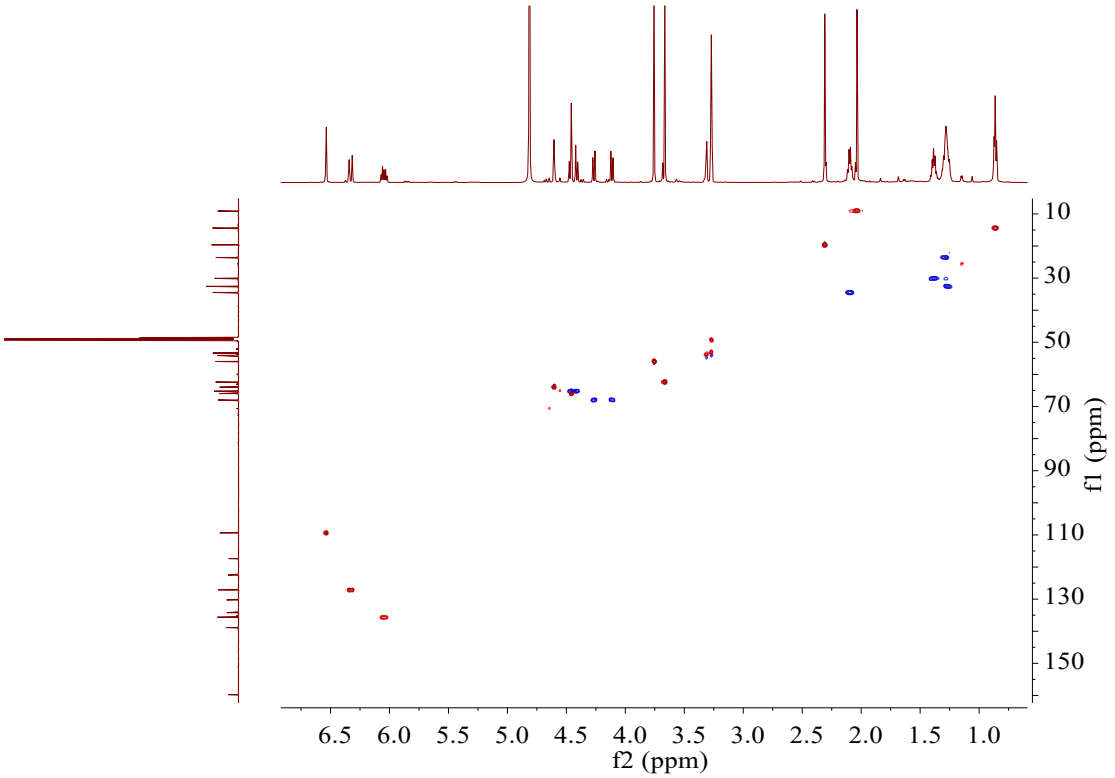


Fig. S24 The HSQC spectrum of compound **3** in $CDCl_3$ (600 MHz)

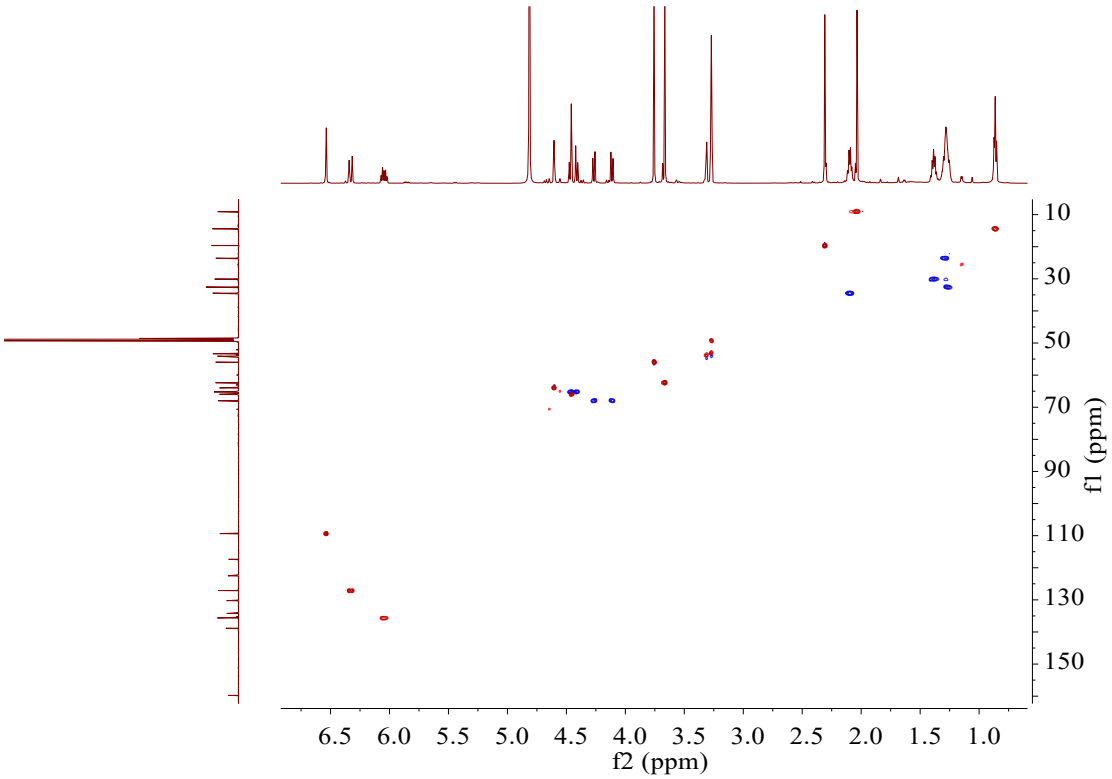


Fig. S25 The HMBC spectrum of compound **3** in $CDCl_3$ (600 MHz)

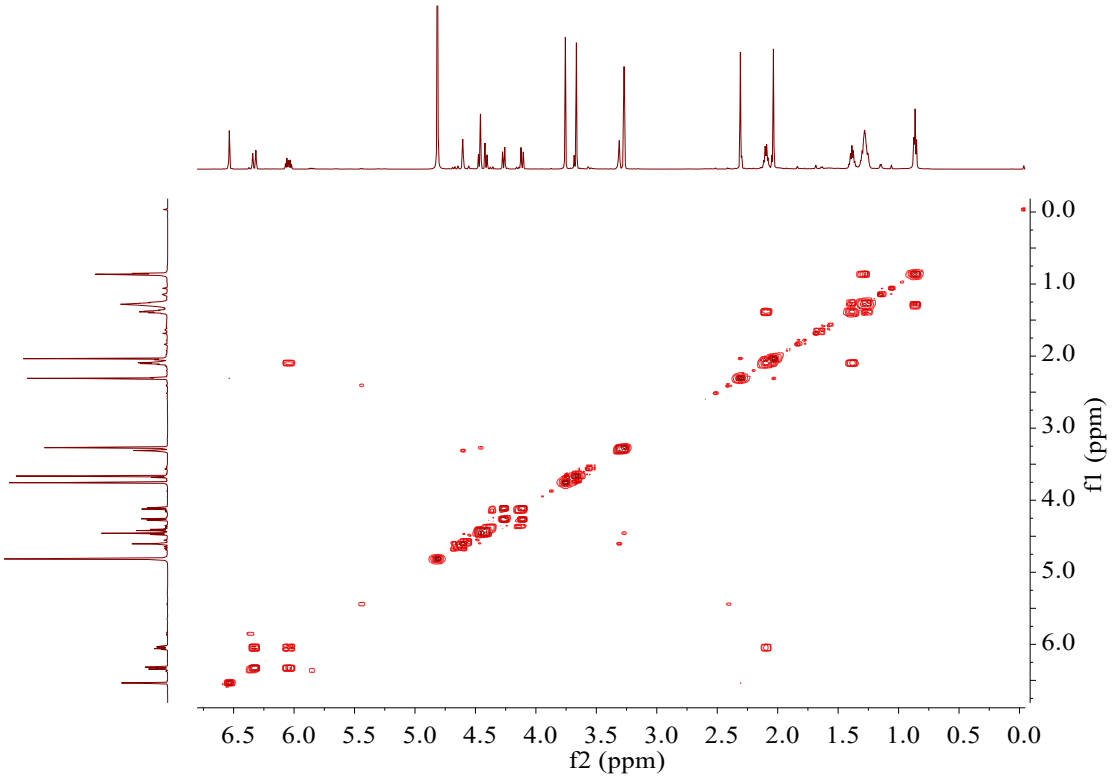


Fig. S26 The ^{1}H-^{1}H COSY spectrum of compound **3** in $CDCl_3$ (600 MHz)

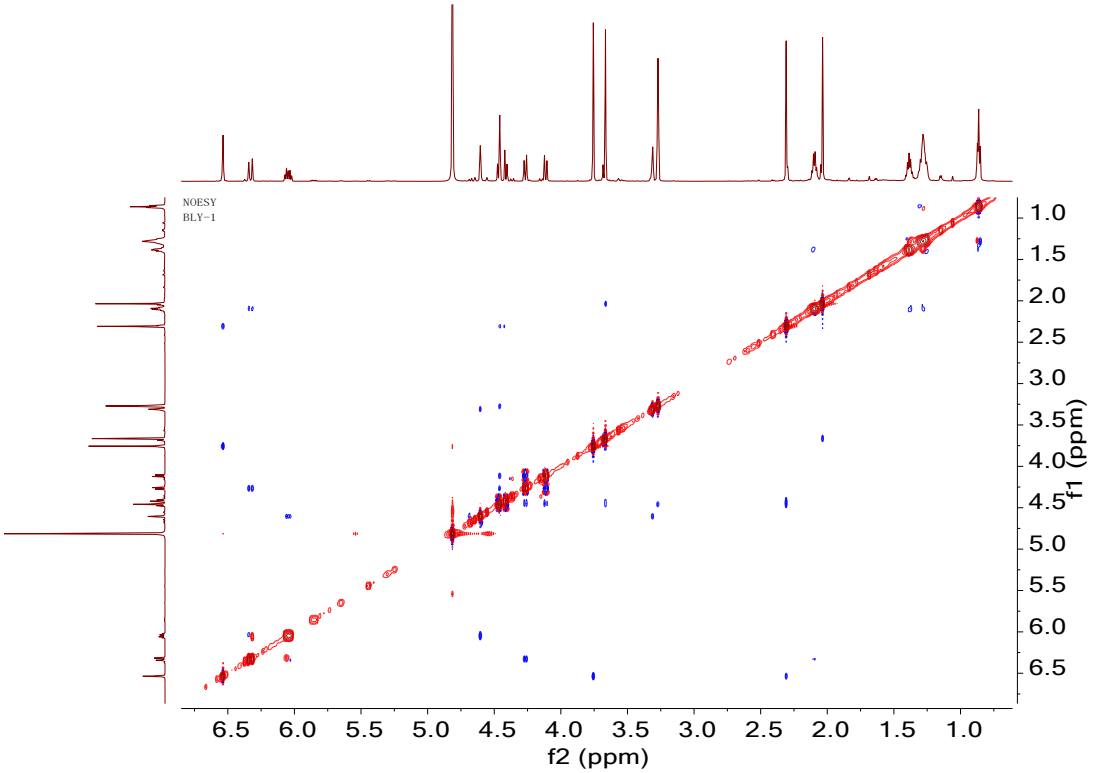


Fig. S27 The NOESY spectrum of compound **3** in $CDCl_3$ (600 MHz)

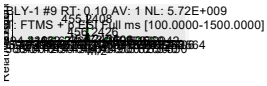


Fig. S28 The HERESIMS spectrum of compound **3**

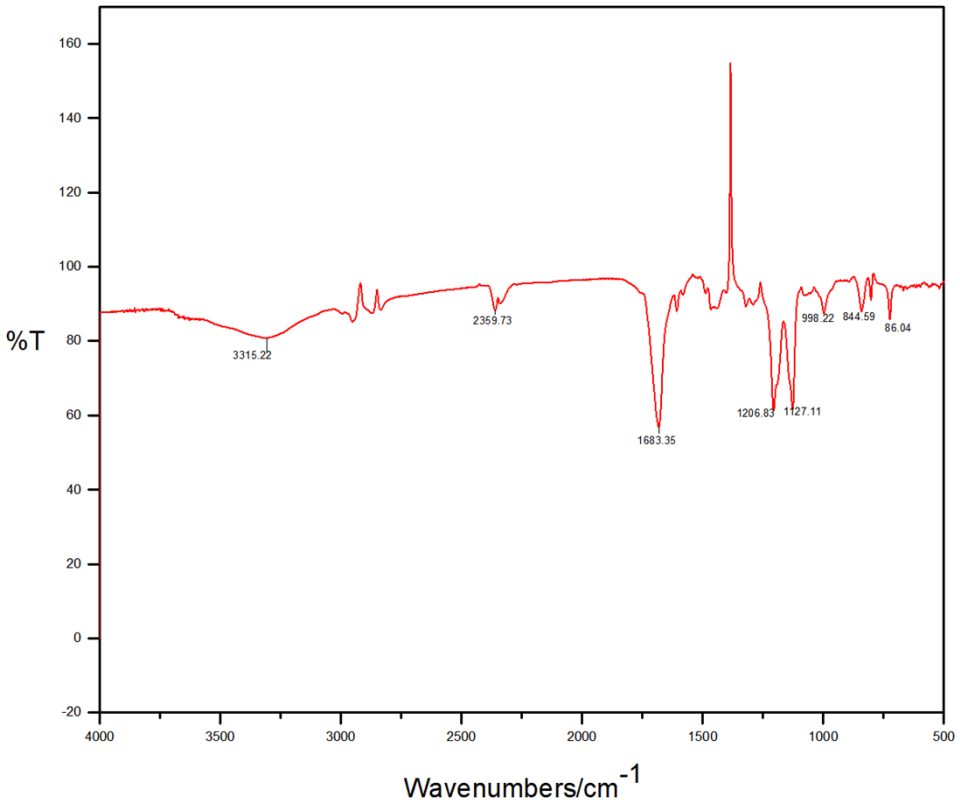


Fig. S29 The IR spectrum of compound **3**

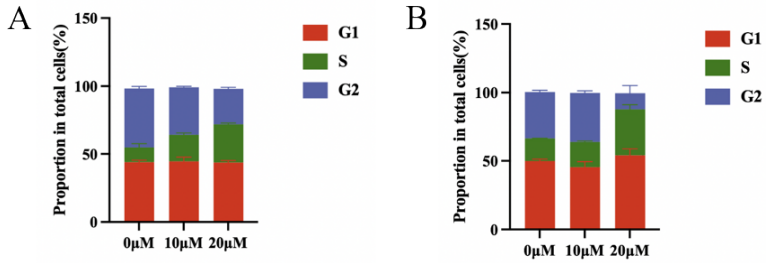


Fig. S30 Flow cytometry was used to detect the cell cycle arrest effects of compounds **1** on SGC-7901 (A) and MGC-803 (B) gastric adenocarcinoma cells.

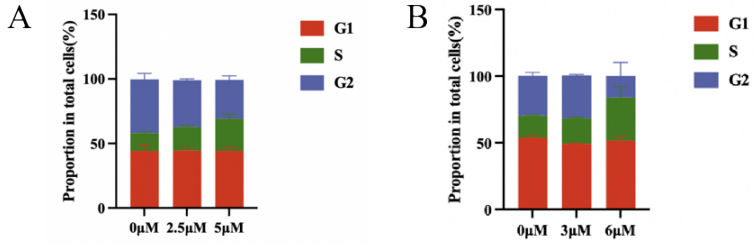


Fig. S31 Flow cytometry was used to detect the cell cycle arrest effects of compounds **2** on SGC-7901 (A) and MGC-803 (B) gastric adenocarcinoma cells.

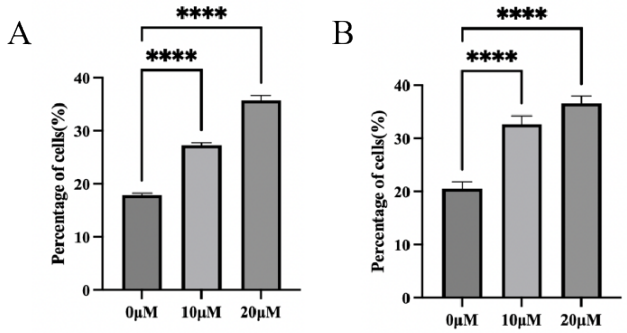


Fig. S32 Flow cytometry was used to detect the effects of compounds **1** on the apoptosis of SGC-7901 (A) and MGC-803 (B) gastric adenocarcinoma cells.*$p < 0.05$, **$p < 0.01$, ***$p < 0.001$, ****$p < 0.0001$ compared with the control group.

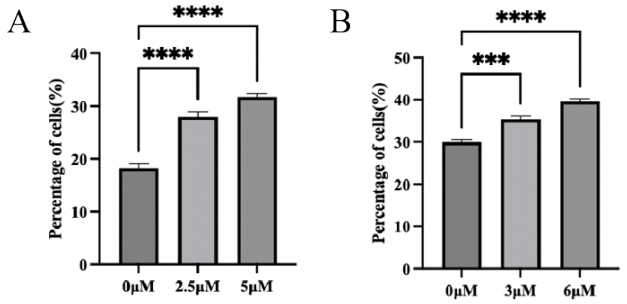


Fig. S33 Flow cytometry was used to detect the effects of compounds **2** on the apoptosis of SGC-7901 (A) and MGC-803 (B) gastric adenocarcinoma cells.*$p < 0.05$, **$p < 0.01$, ***$p < 0.001$, ****$p < 0.0001$ compared with the control group.