

## Supporting Information

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### Pterocarpin and isoflavan derivatives from *Canavalia maritima*

(Aubl.) Thou.

Xinping Huang<sup>1,2</sup>, Bing Mu<sup>1</sup>, Wenhan Lin<sup>2</sup> and Yan Qiu<sup>3</sup>

<sup>1</sup>Department of Chemistry, Zhengzhou Normal University, Zhengzhou, Henan, 450044, P.R. China

<sup>2</sup>State Key Laboratory of Natural and Biomimetic Drugs, Peking University, Beijing 100083, P.R. China

<sup>3</sup>Medical college of Xiamen University, Xiamen, Fujian, 31005, P.R. China

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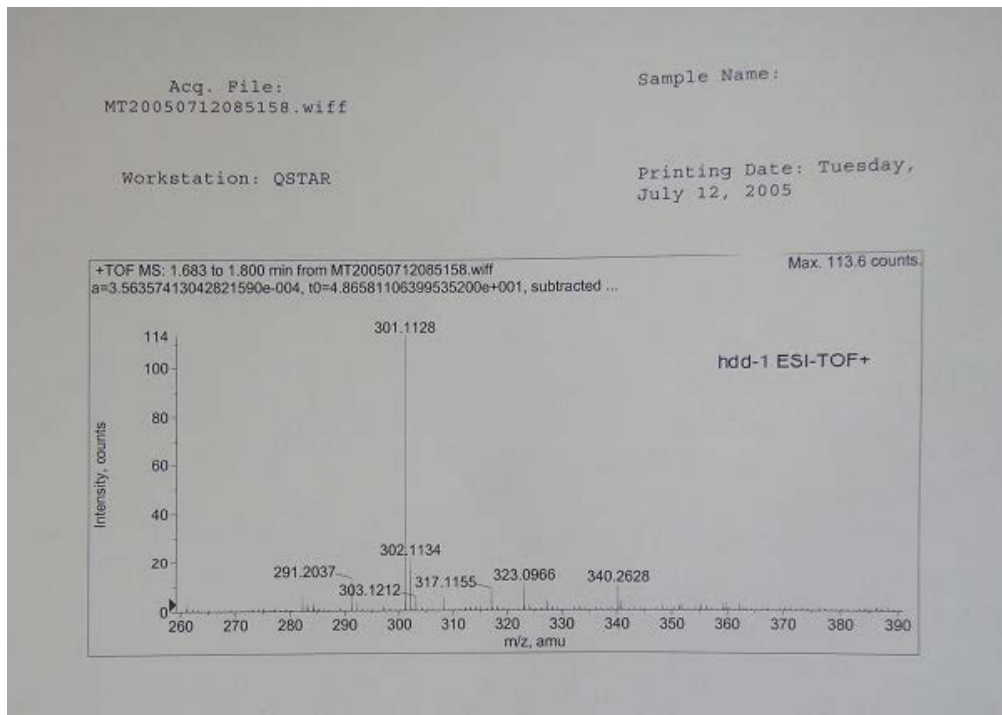
**Compound 1:** 2-hydroxy-4,9-dimethoxypterocarpin; White amorphous powder, ESI-MS  $m/z$  301.11[M+1]<sup>+</sup>; <sup>1</sup>H-NMR (500MHz, CDCl<sub>3</sub>)  $\delta_H$ : 7.13 (1H, *d*,  $J = 9.0$ Hz, H-7), 7.05 (1H, *s*, H-1), 6.47 (1H, *s*, H-4), 6.45 (1H, *d*,  $J = 3.0$ Hz, H-10), 6.44 (1H, *dd*,  $J = 9.0, 3.0$ Hz, H-8), 5.47 (1H, *d*,  $J = 7.0$ Hz, H-11a), 5.30 (br *s*, HO-2), 4.22 (1H, *dd*,  $J = 10.5, 5.0$ Hz, H $\alpha$ -6), 3.87 (3H, *s*, -OCH<sub>3</sub>-3), 3.77 (3H, *s*, -OCH<sub>3</sub>-9), 3.62 (1H, *dd*,  $J = 10.5, 10.5$ Hz, H $\beta$ -6), 3.55 (1H, *m*,  $J = 10.5, 7.0, 5.0$ Hz, H-6a). For the <sup>13</sup>C-NMR please see Table 1. The spectral data (<sup>1</sup>H-NMR) are the same as in Yutaka[5].

**Compound 2:** 4-hydroxy-3-methoxy-8,9-methylenedioxypterocarpan; White amorphous powder, ESI-MS  $m/z$  315.09[M+1]<sup>+</sup>; <sup>1</sup>H-NMR (500MHz, CDCl<sub>3</sub>)  $\delta_H$ : 7.05 (1H, *d*,  $J = 8.5$ Hz, H-1), 6.75 (1H, *s*, H-7), 6.69 (1H, *d*,  $J = 8.5$ Hz, H-2), 6.45 (1H, *s*, H-10), 5.94 (2H, each *d*,  $J = 15.0$ Hz, -OCH<sub>2</sub>O-), 5.54 (1H, *d*,  $J = 7.0$ Hz, H-11a), 5.50 (br *s*, HO-4), 4.36 (1H, *dd*,  $J = 11.0, 5.0$ Hz, H $\alpha$ -6), 3.93 (3H, *s*, -OCH<sub>3</sub>-3), 3.72 (1H, *dd*,  $J = 11.0, 11.0$ Hz, H $\beta$ -6), 3.56 (1H, *ddd*,  $J = 11.0, 7.0, 5.0$ Hz, H-6a). For the <sup>13</sup>C-NMR please see Table 1. The spectral data are the same as in Chaudhuri et al[6].

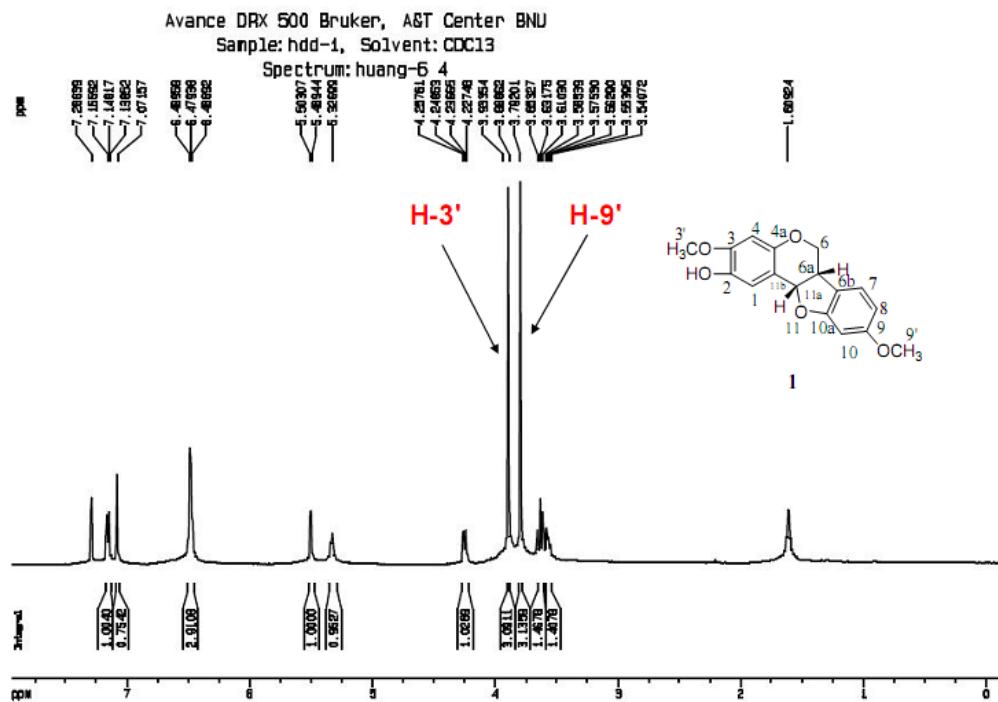
**Compound 3:** medicarpin; White amorphous powder, ESI-MS  $m/z$  271.11[M+1]<sup>+</sup>; <sup>1</sup>H-NMR (500MHz, CDCl<sub>3</sub>)  $\delta_H$ : 7.38 (1H, *d*,  $J = 8.5$ Hz, H-1), 7.12 (1H, *d*,  $J = 9.0$ Hz, H-7), 6.55 (1H, *dd*,  $J = 8.5, 2.5$ Hz, H-2), 6.46 (1H, *dd*,  $J = 9.0, 2.5$ Hz, H-8), 6.45 (1H, *d*,  $J = 3.0$ Hz, H-10), 6.41 (1H, *d*,  $J = 2.5$ Hz, H-4), 5.49 (1H, *d*,  $J = 6.5$ Hz, H-11a), 5.12 (br *s*, HO-3), 4.23 (1H, *dd*,  $J = 11.0, 5.0$ Hz, H $\alpha$ -6), 3.77 (3H, *s*, -OCH<sub>3</sub>-9), 3.62 (1H, *dd*,  $J = 10.5$ Hz, H $\beta$ -6), 3.54 (1H, *ddd*,  $J = 11.0, 6.5, 5.0$ Hz, H-6a). For the <sup>13</sup>C-NMR please see Table 1. The spectral data are the same as in Matos et al.[7] and Seo et al[8].

**Table 1** <sup>13</sup>C-NMR data for Compounds **1-3** (at 125MHz in CDCl<sub>3</sub>,  $\delta$  in ppm)

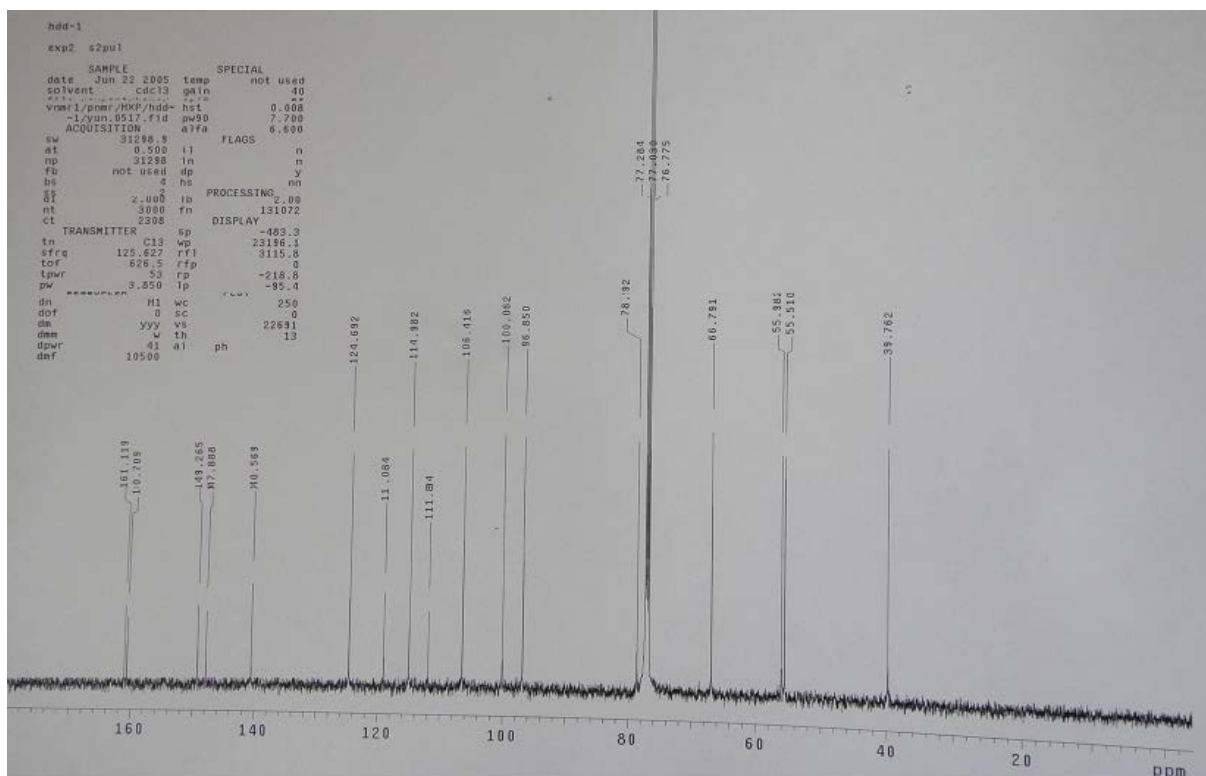
Position (C)	1	2	3
1	114.98 d	120.91 d	132.22 d
2	140.57 s	105.24 d	109.78 d
3	147.89 s	147.25 s	156.68 s
4	100.06 d	133.84 s	103.68 d
4a	149.25 s	143.11 s	157.03 s
6	66.79 t	66.76 t	66.56 t
6a	39.76 d	40.15 d	39.59 d
6b	119.08 s	117.58 s	119.12 s
7	124.69 d	104.67 d	124.78 d
8	106.42 d	141.66 s	106.47 d
9	161.11 s	148.04 s	161.30 s
10	96.85 d	93.73 d	96.93 d
10a	160.11 s	154.29 s	160.66 s
11a	78.59 d	78.27 d	78.54 d
11b	111.89 s	113.82 s	112.64 s
OCH <sub>3</sub> -3	55.98 q	56.23 q	-
OCH <sub>3</sub> -9	55.51 q	-	55.53 q
OCH <sub>2</sub> O	-	101.21 t	-



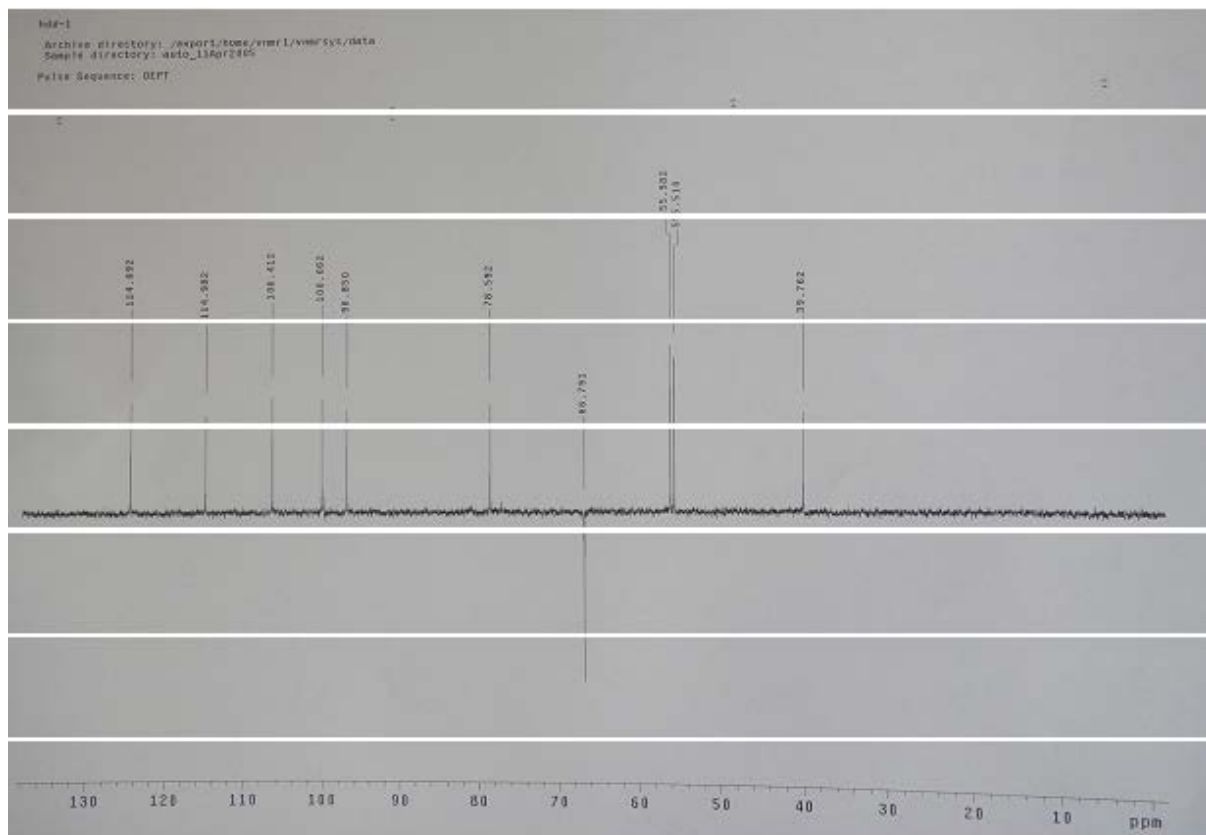
## Compound 1 ESI-MS



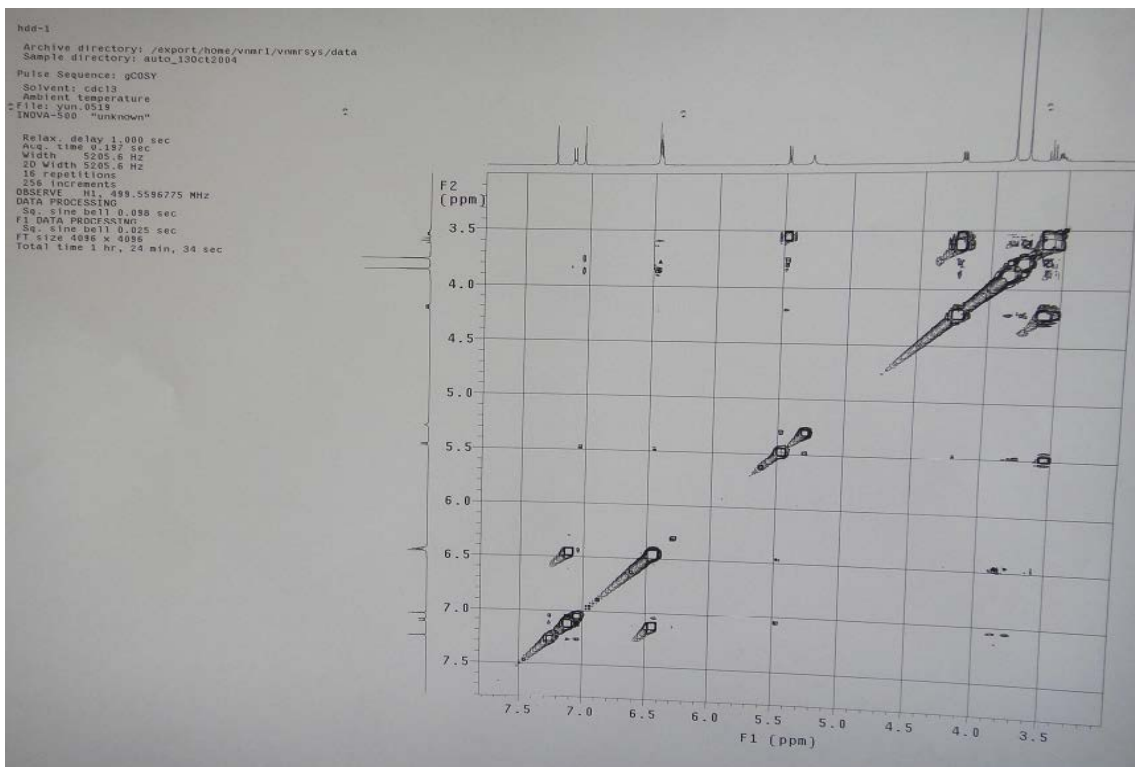
## Compound 1 <sup>1</sup>H-NMR



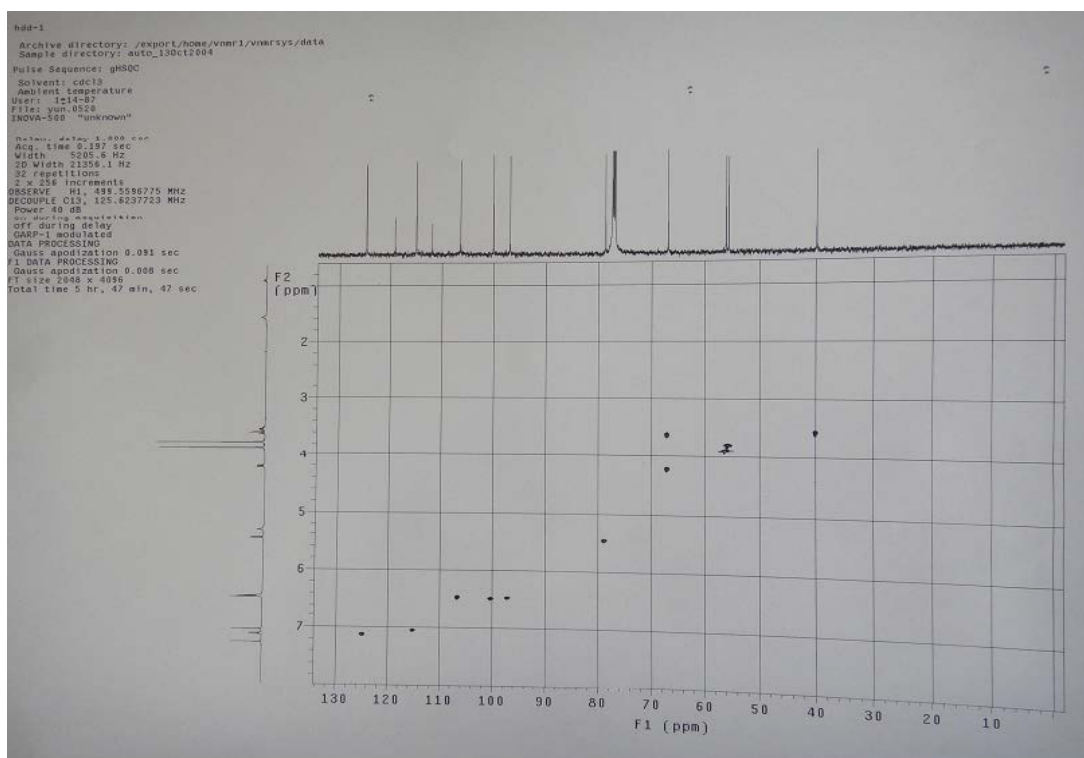
Compound 1  $^{13}\text{C}$ -NMR



Compound 1 DEPT

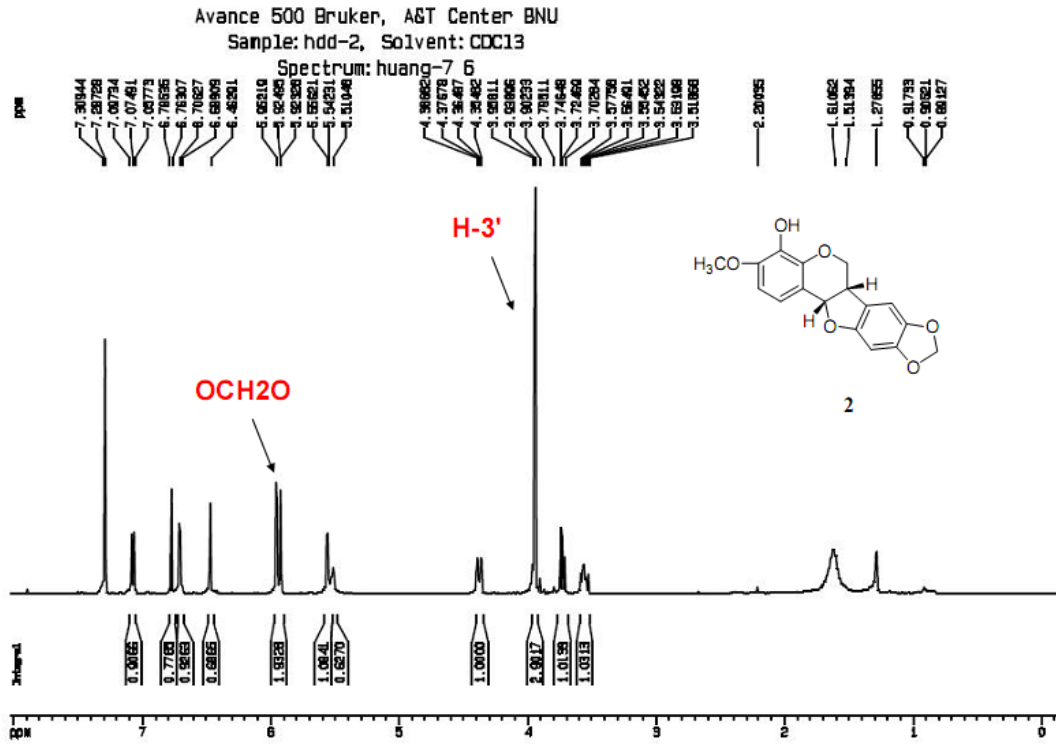


Compound 1 COSY

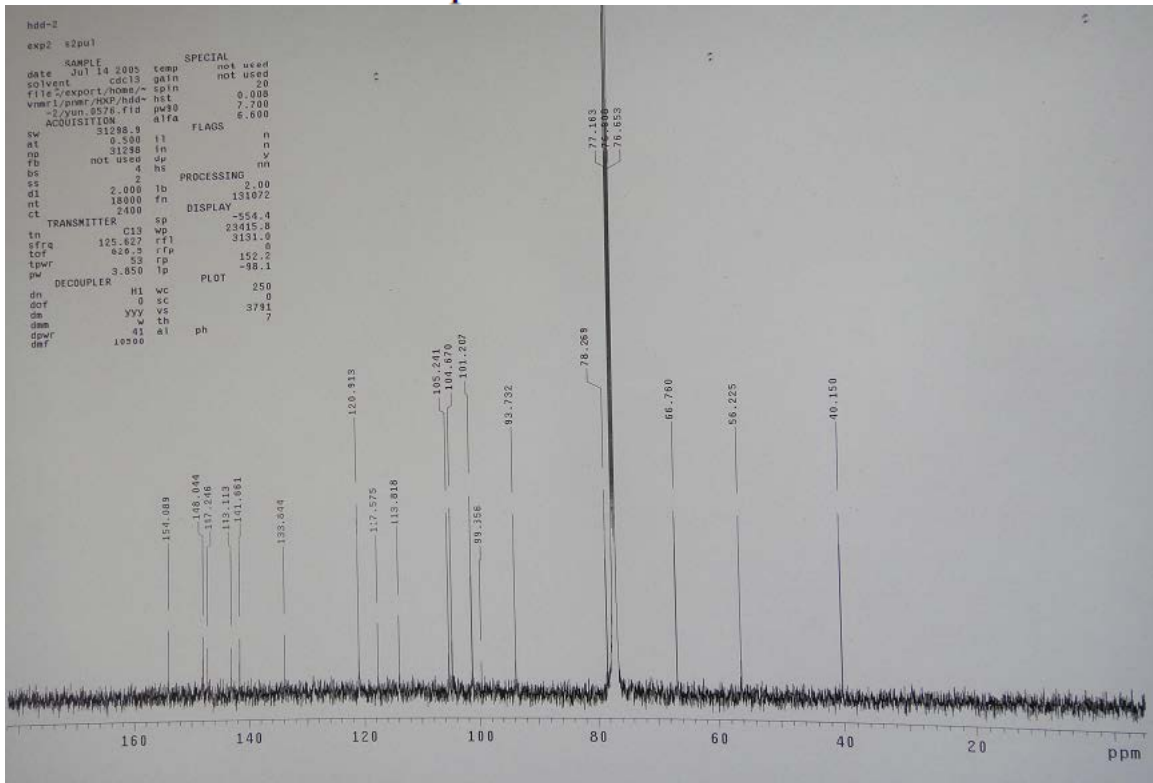


Compound 1 HMQC

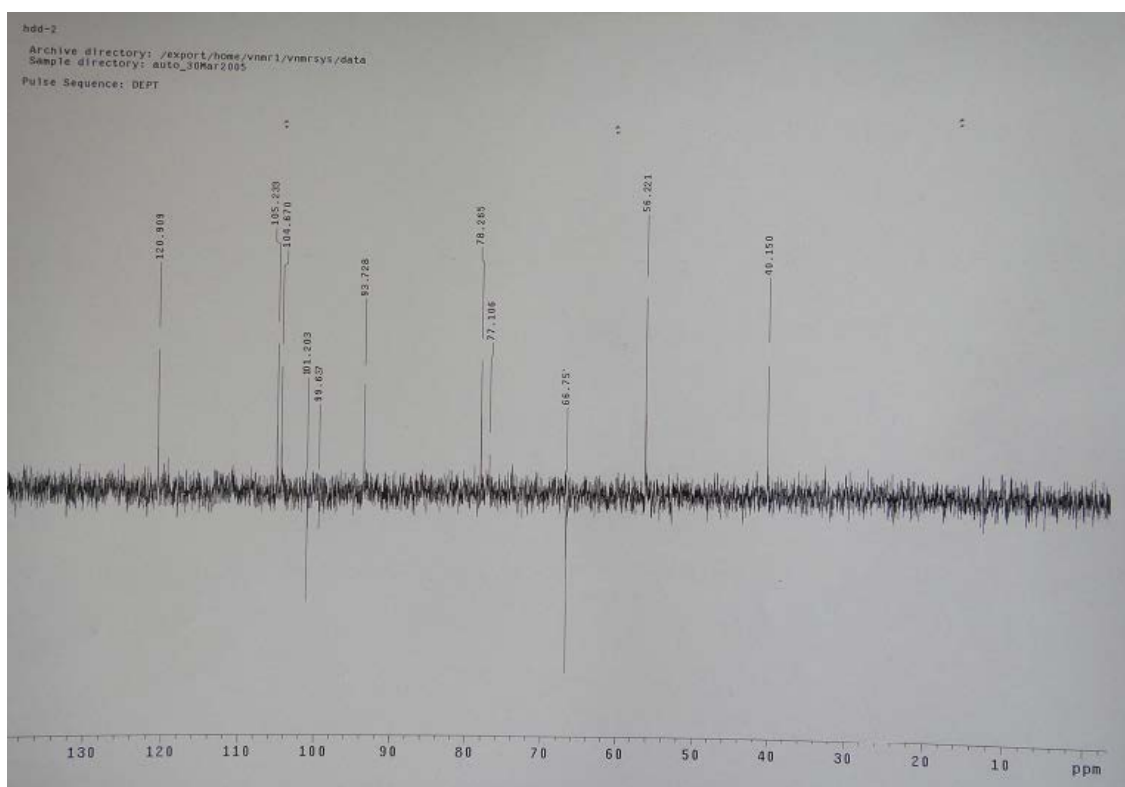




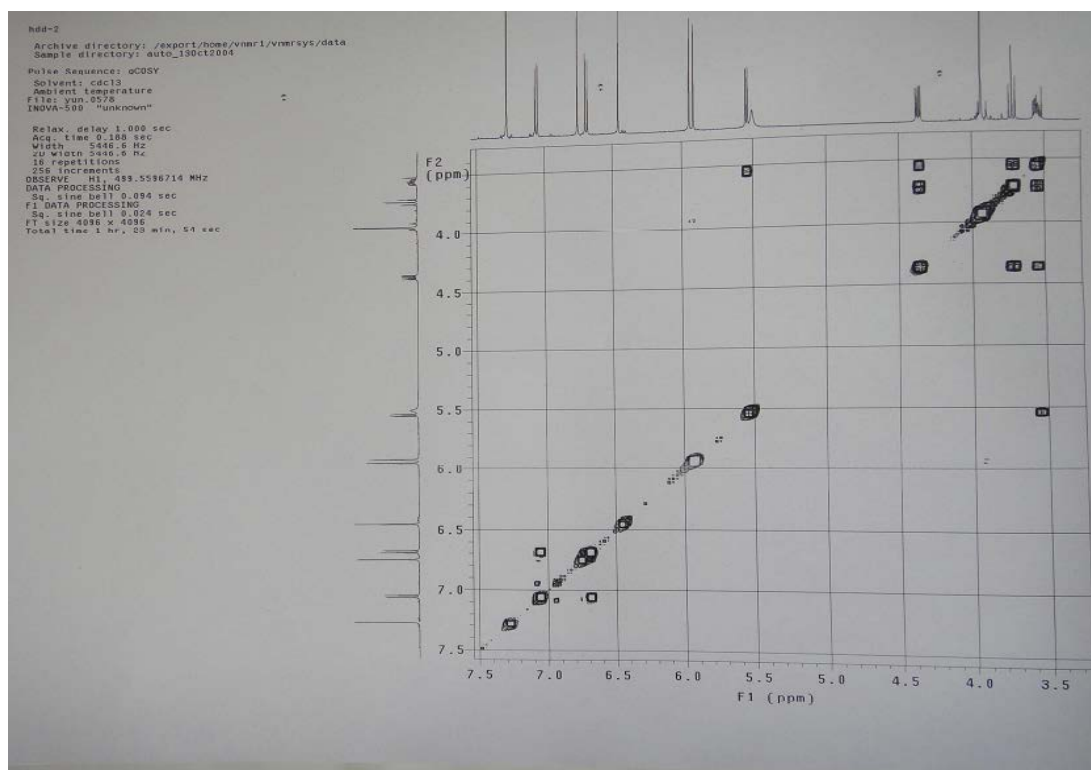
### Compound 2 <sup>1</sup>H-NMR



### Compound 2 <sup>13</sup>C-NMR

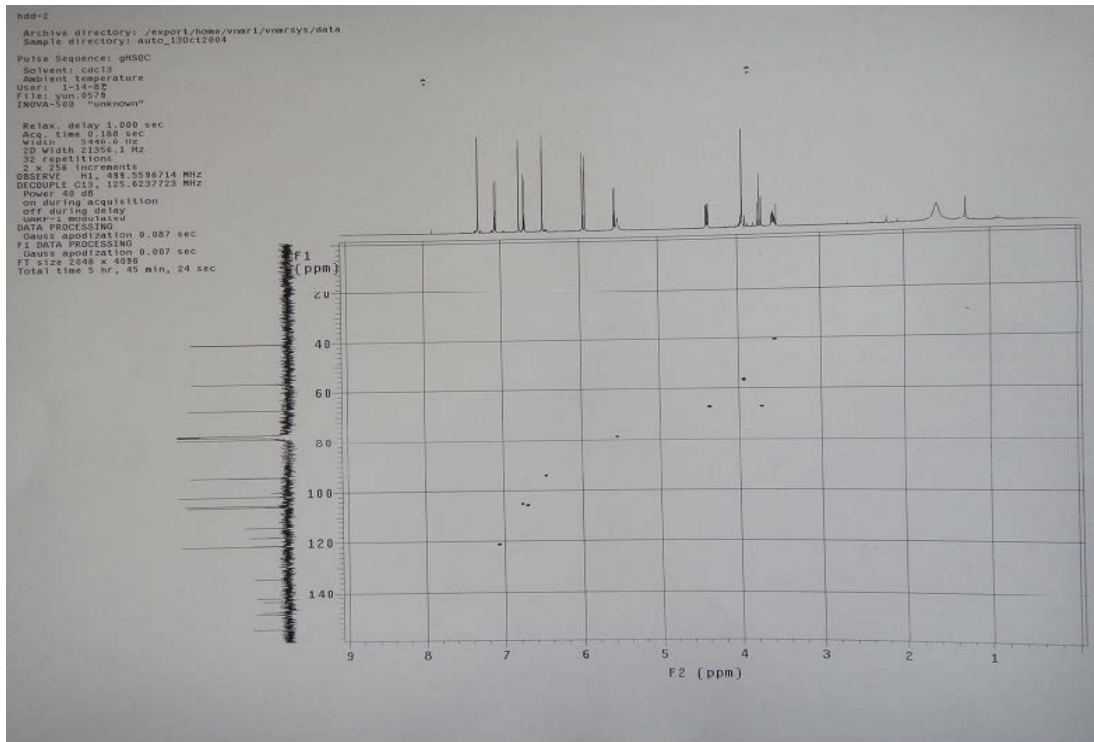


Compound 2 DEPT

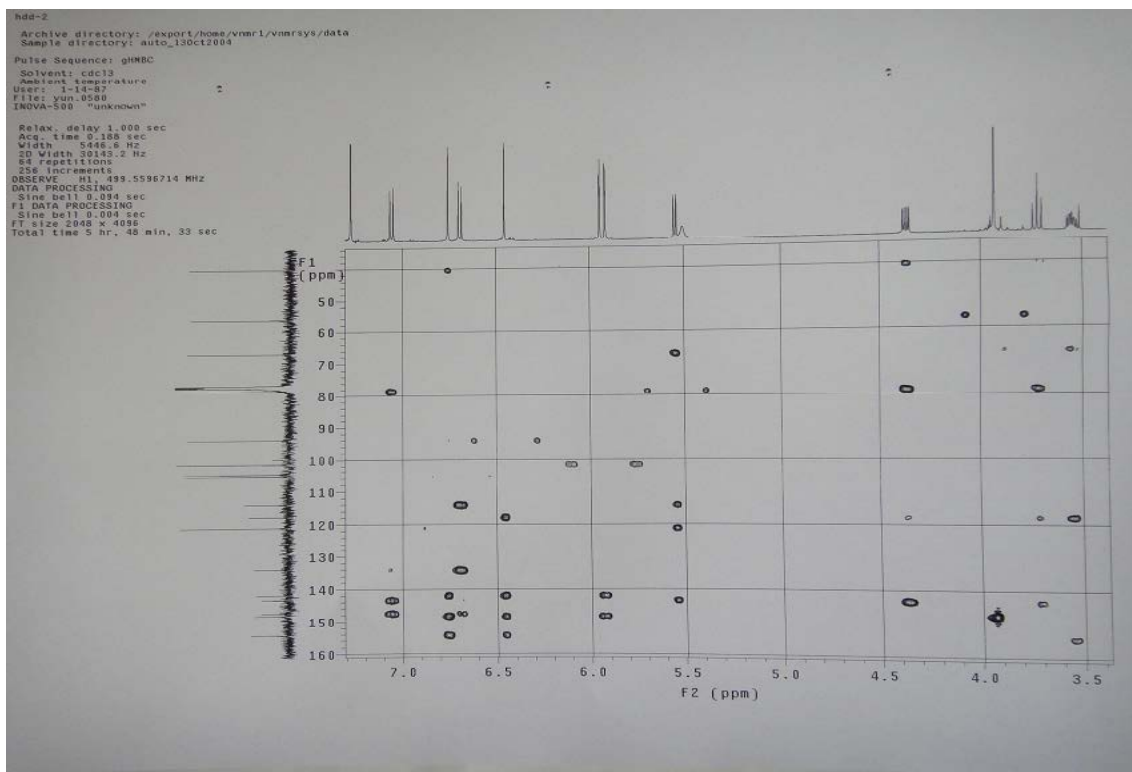


Compound 2 COSY

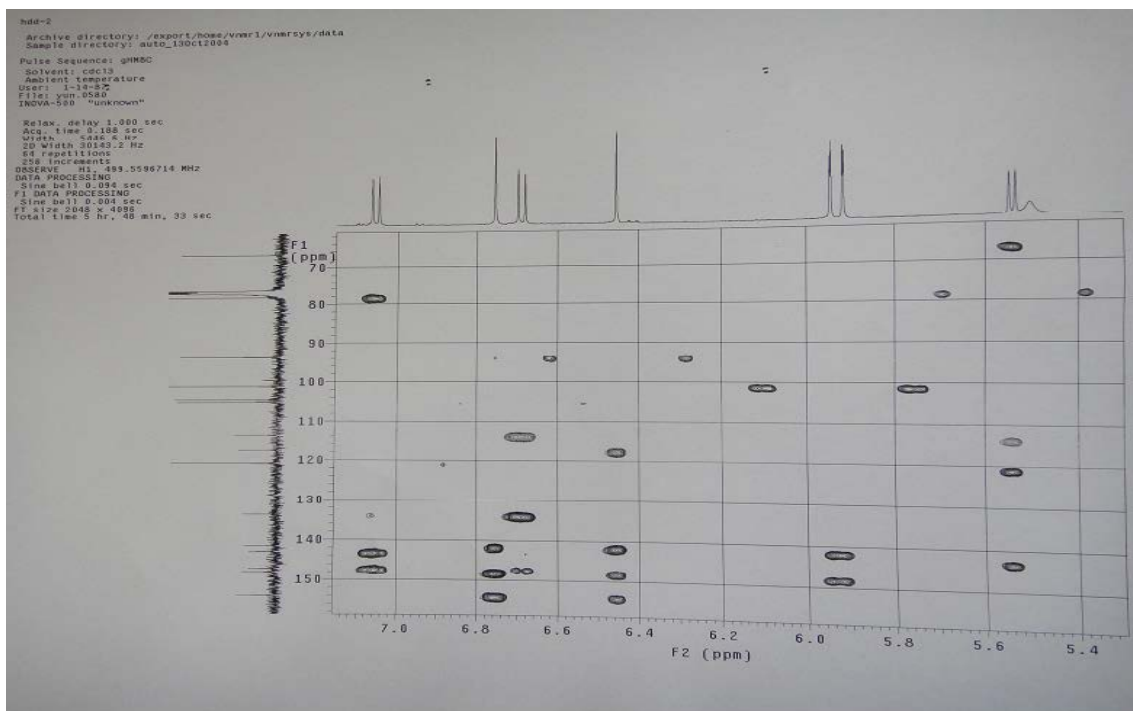




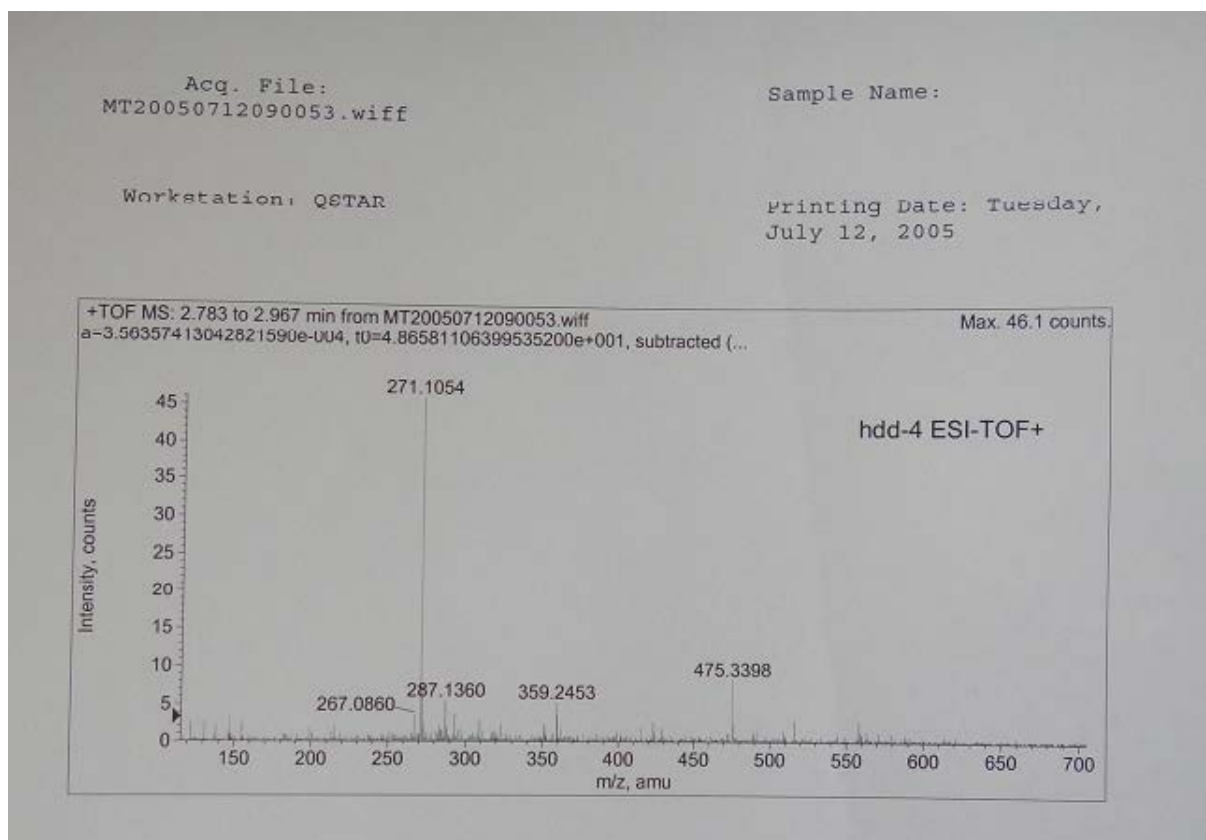
Compound 2 HMQC



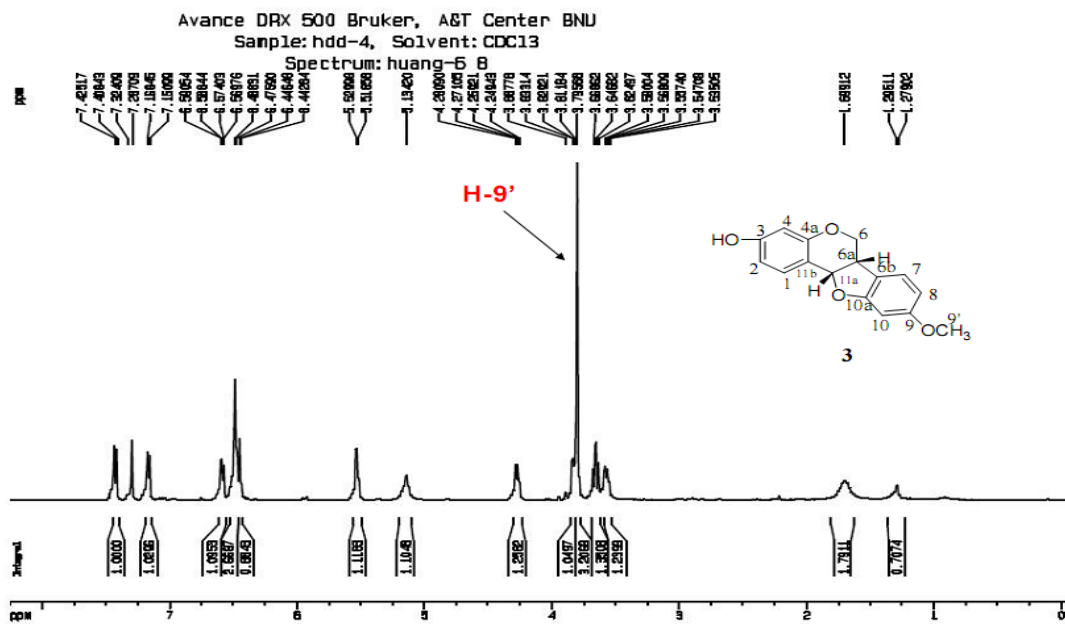
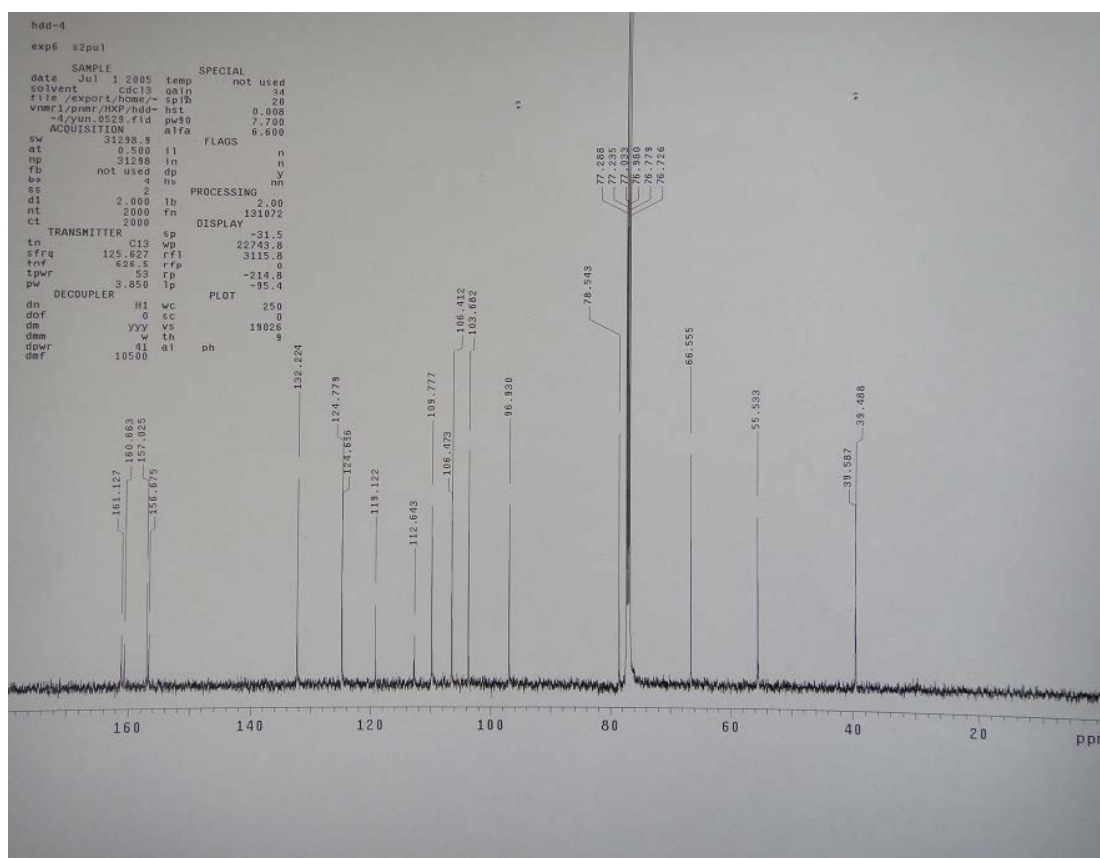
Compound 2 HMBC

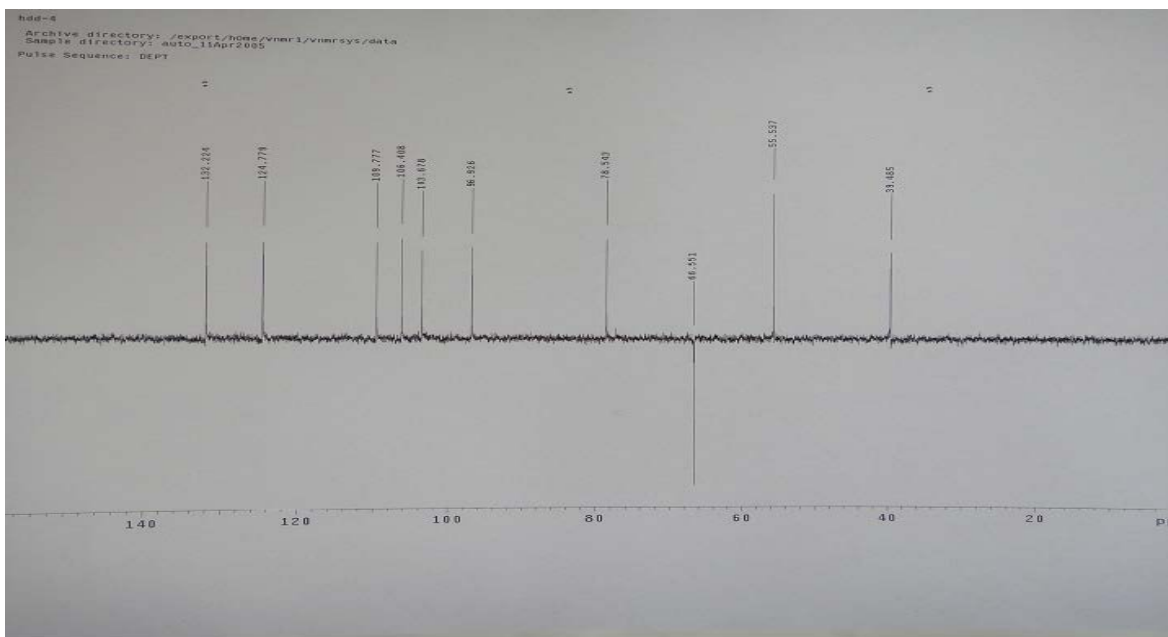


Compound 2 HMBC

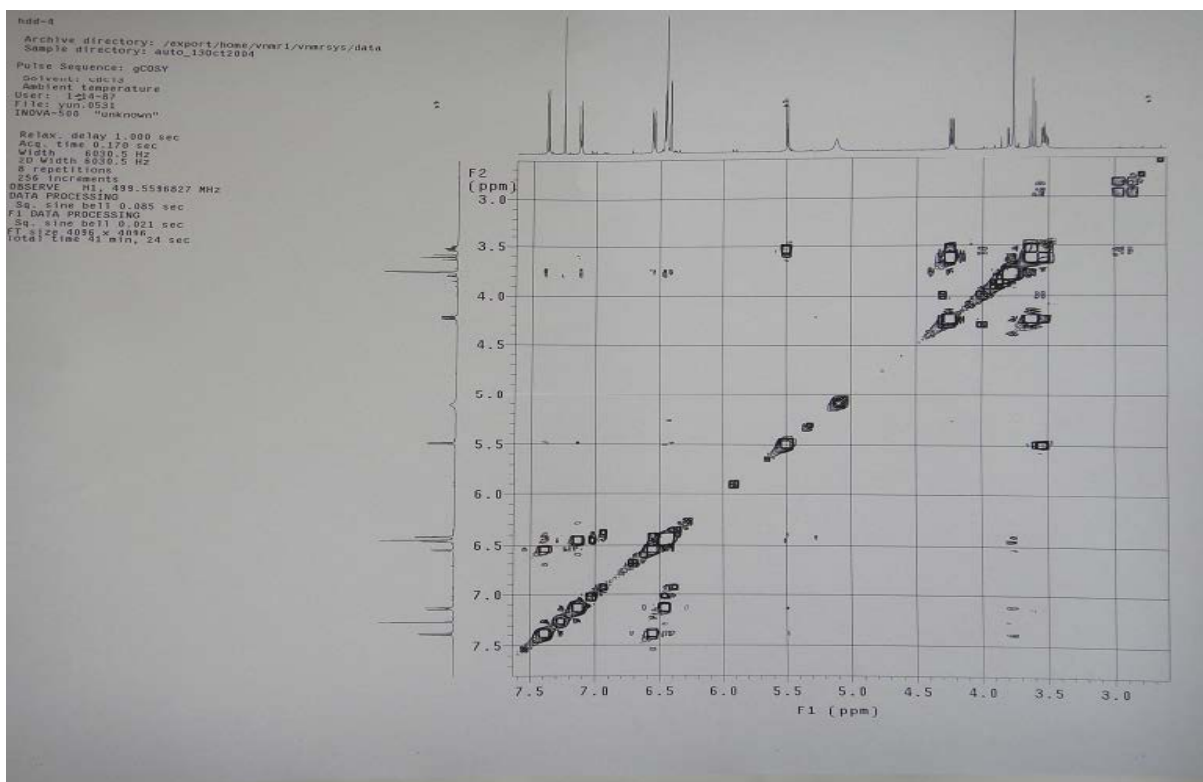


Compound 3 ESI-MS

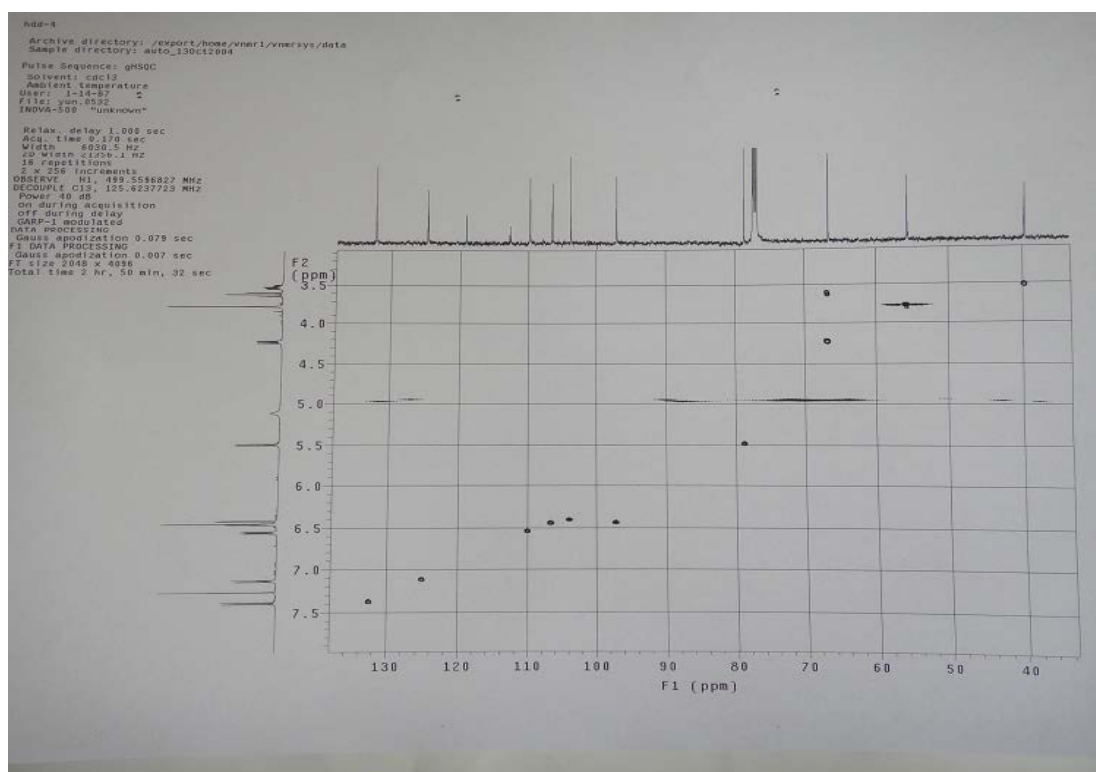
Compound 3 <sup>1</sup>H-NMRCompound 3 <sup>13</sup>C-NMR



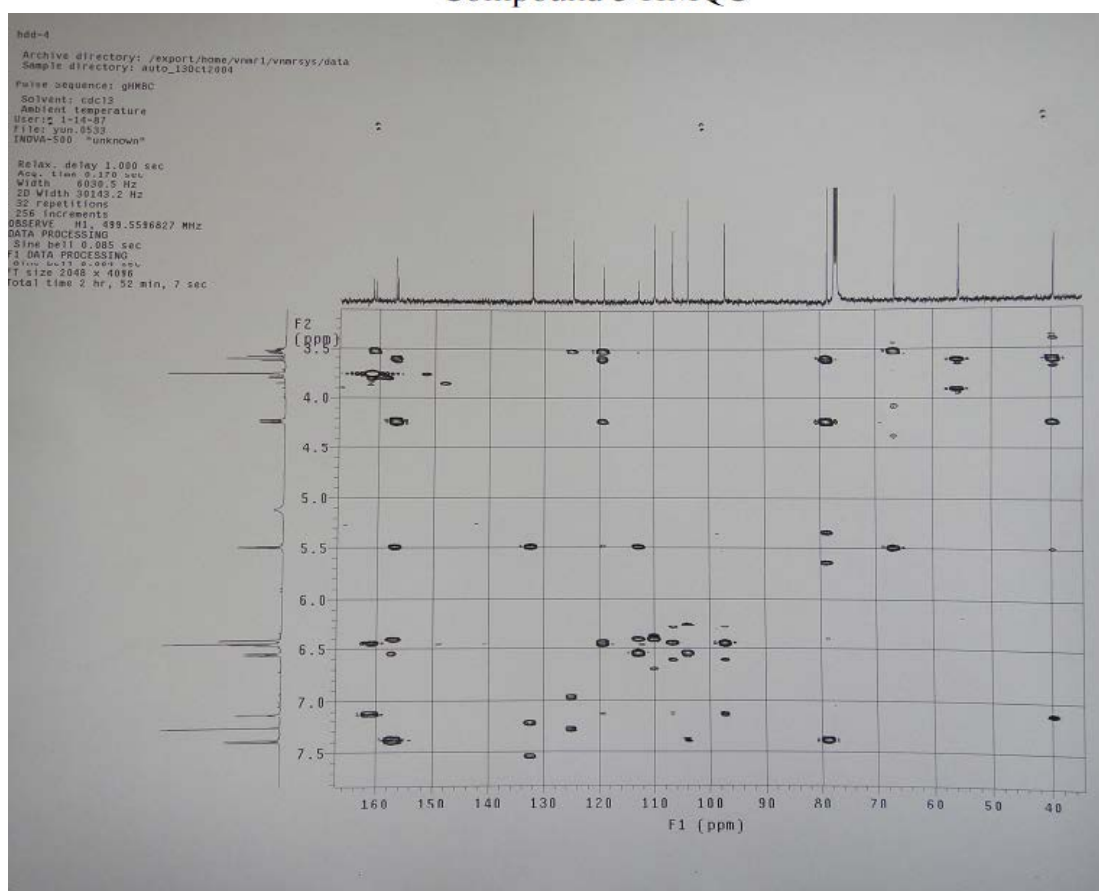
Compound 3 DEPT



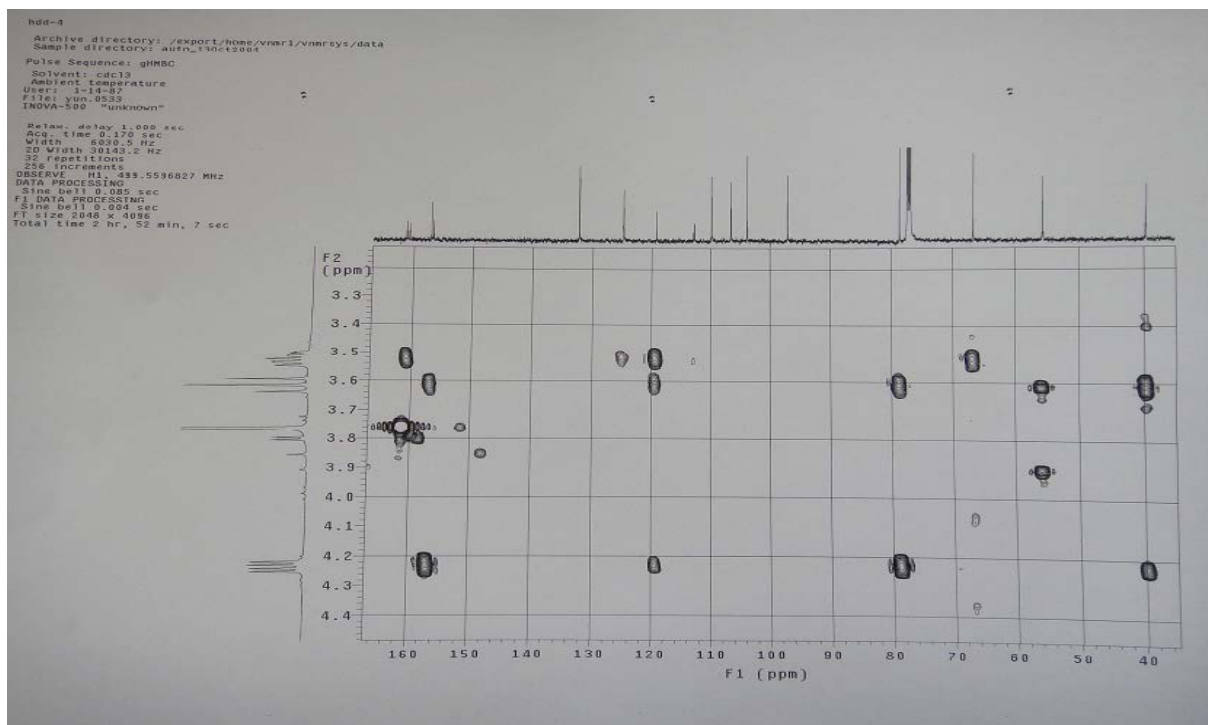
Compound 3 COSY



Compound 3 HMQC



Compound 3 HMBC



Compound 3 HMBC