

## SUPPORT INFORMATION:

### Diethyl (2-(4-phenyl-1*H*-1,2,3-triazol-1-yl)benzyl) phosphate

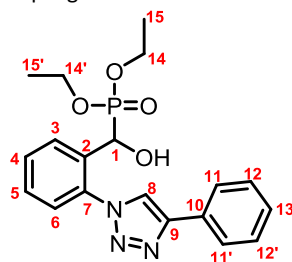
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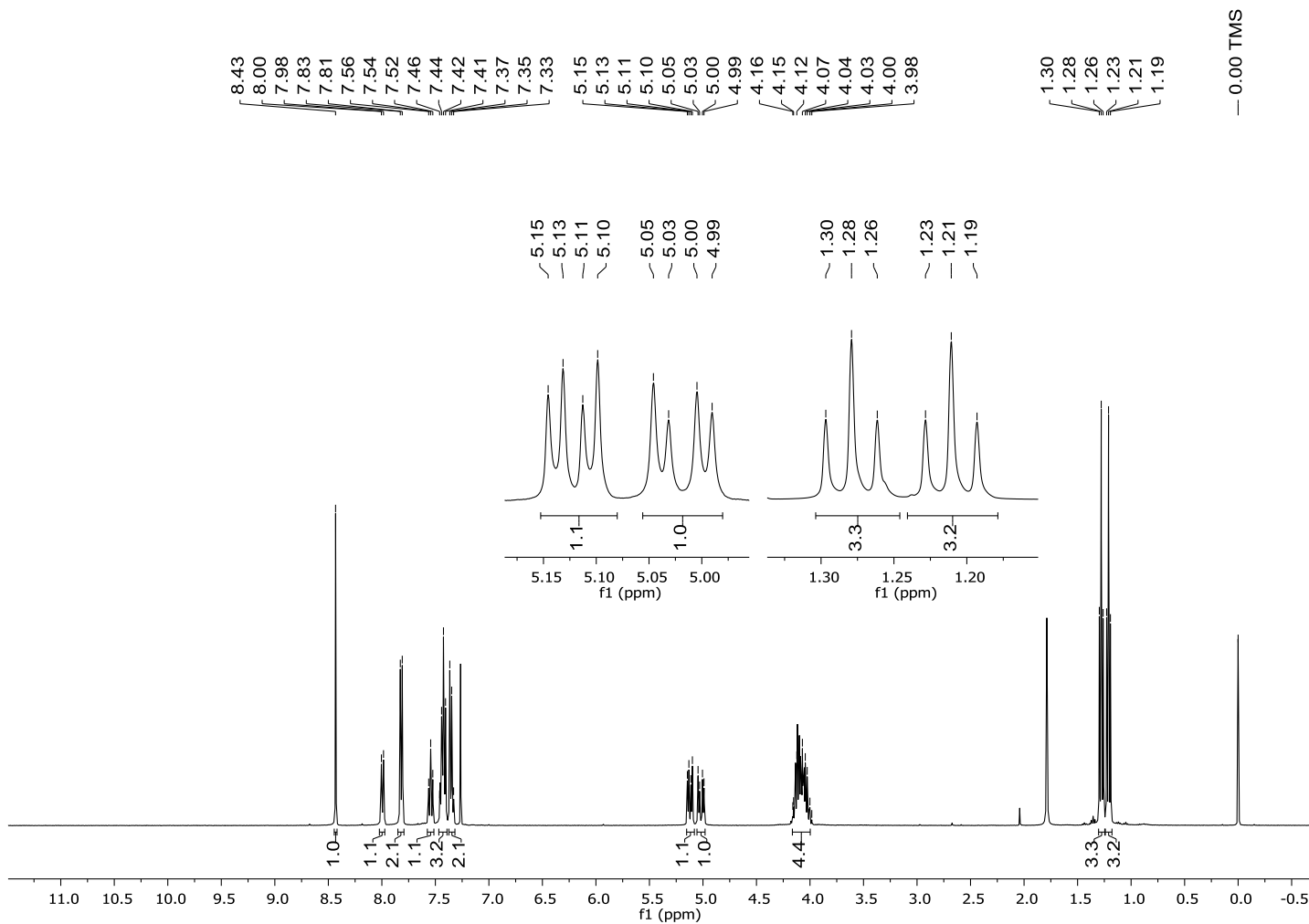
### Contents

Table S1 - <sup>1</sup> H and <sup>13</sup> C Chemical shifts of compound 3.....	S2
Selected spectra of products.....	S3

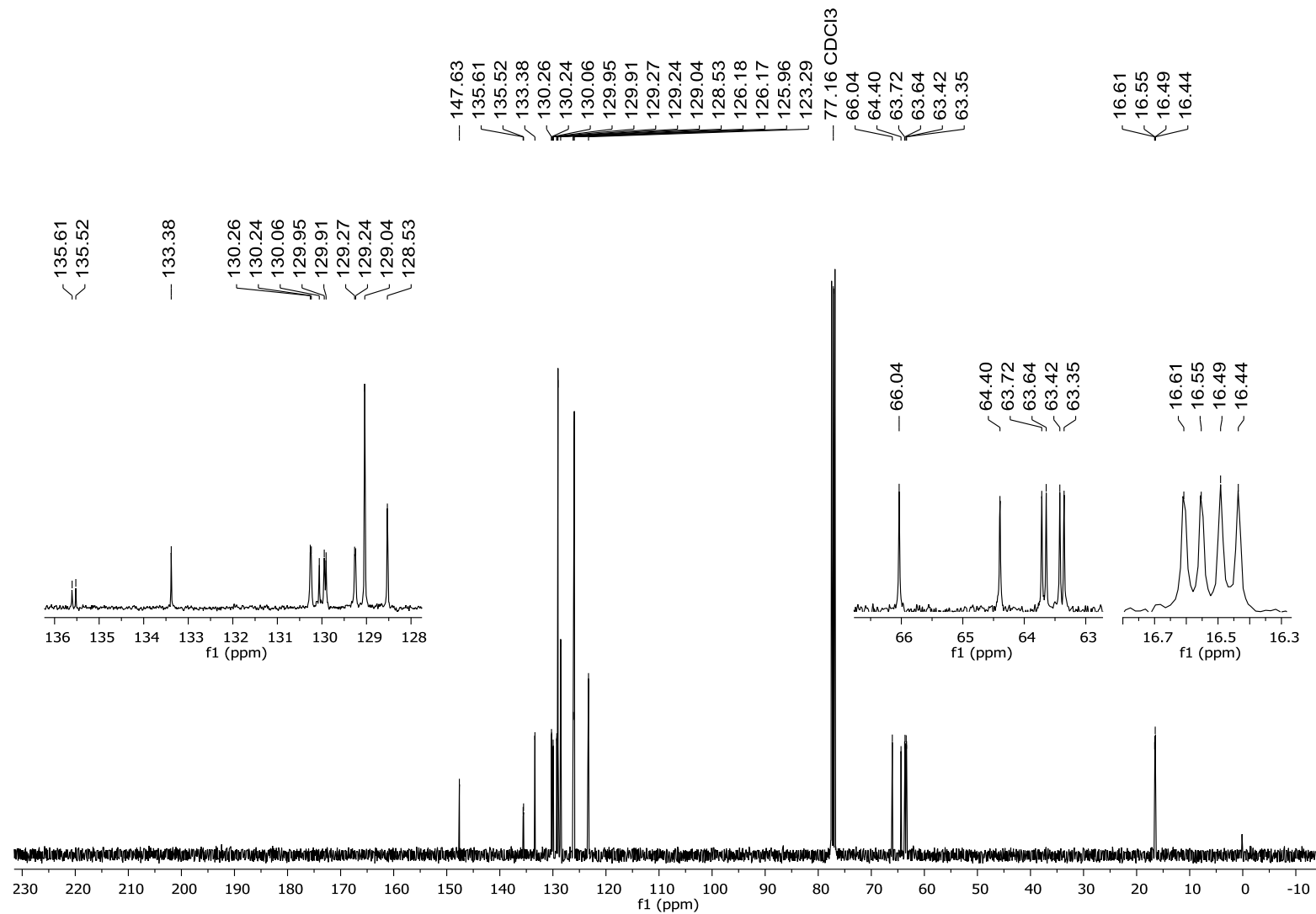
**Table S1.**  $^1\text{H}$  and  $^{13}\text{C}$  Chemical shifts, coupling constants and HMBC 2D correlations of **3**.

Number	$^1\text{H}$ (ppm)	$^{13}\text{C}$ (ppm)	$^{13}\text{C}$ HMBC
1	5.12 (dd, $J_{\text{H-P}} = 13.1$ Hz and $J_{\text{H-H}} = 5.8$ Hz)	65.2 (d, $J_{\text{C-P}} = 165.0$ Hz)	C2, C3, C7
2	---	133.4	---
3	7.99 (d, $J_{\text{H-H}} = 8.0$ Hz)	129.9 (d, $J_{\text{C-P}} = 4.1$ Hz)	C1, C5, C7
4	7.54 (dd, $J_{\text{H-H}} = 7.6$ and $7.1$ Hz)	130.3 (d, $J_{\text{C-P}} = 2.4$ Hz)	C2, C6
5	7.46 – 7.40 (m)	129.3 (d, $J_{\text{C-P}} = 2.6$ Hz)	C3, C7
6	7.37 – 7.33 (m)	123.4	C2, C4, C7
7	---	135.6 (d, $J_{\text{C-P}} = 9.1$ Hz)	---
8	8.43 (s)	123.3	C9
9	---	147.6	---
10	---	130.1	---
11, 11'	7.82 (d, $J_{\text{H-H}} = 7.0$ Hz)	126.0	C9, C11, C13
12, 12'	7.46 – 7.40 (m)	129.0	C10, C11, C12
13	7.37 – 7.33 (m)	128.5	C11
14	4.16 – 4.00 (m)	63.7 (d, $J_{\text{C-P}} = 7.2$ Hz)	C15
14'	4.16 – 4.00 (m)	63.4 (d, $J_{\text{C-P}} = 7.1$ Hz)	C15'
15	1.28 (t, $J_{\text{H-H}} = 7.0$ Hz)	16.6 (d, $J_{\text{C-P}} = 5.5$ Hz)	C14
15'	1.21 (t, $J_{\text{H-H}} = 7.1$ Hz)	16.5 (d, $J_{\text{C-P}} = 5.6$ Hz)	C14'
OH	5.02 (dd, $J_{\text{H-P}} = 16.5$ and $J_{\text{H-H}} = 5.8$ Hz)	---	C1

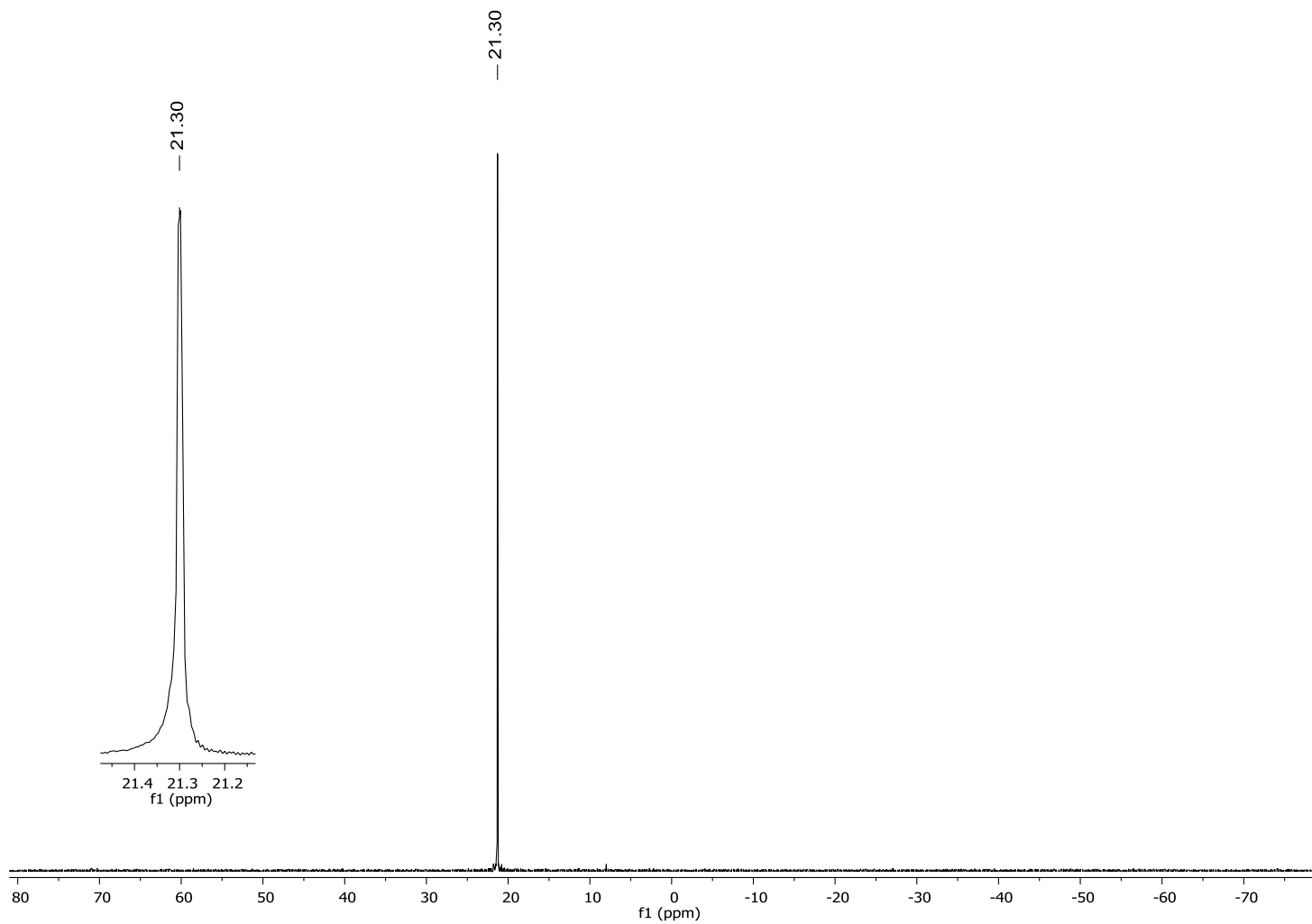
### Selected spectra of products



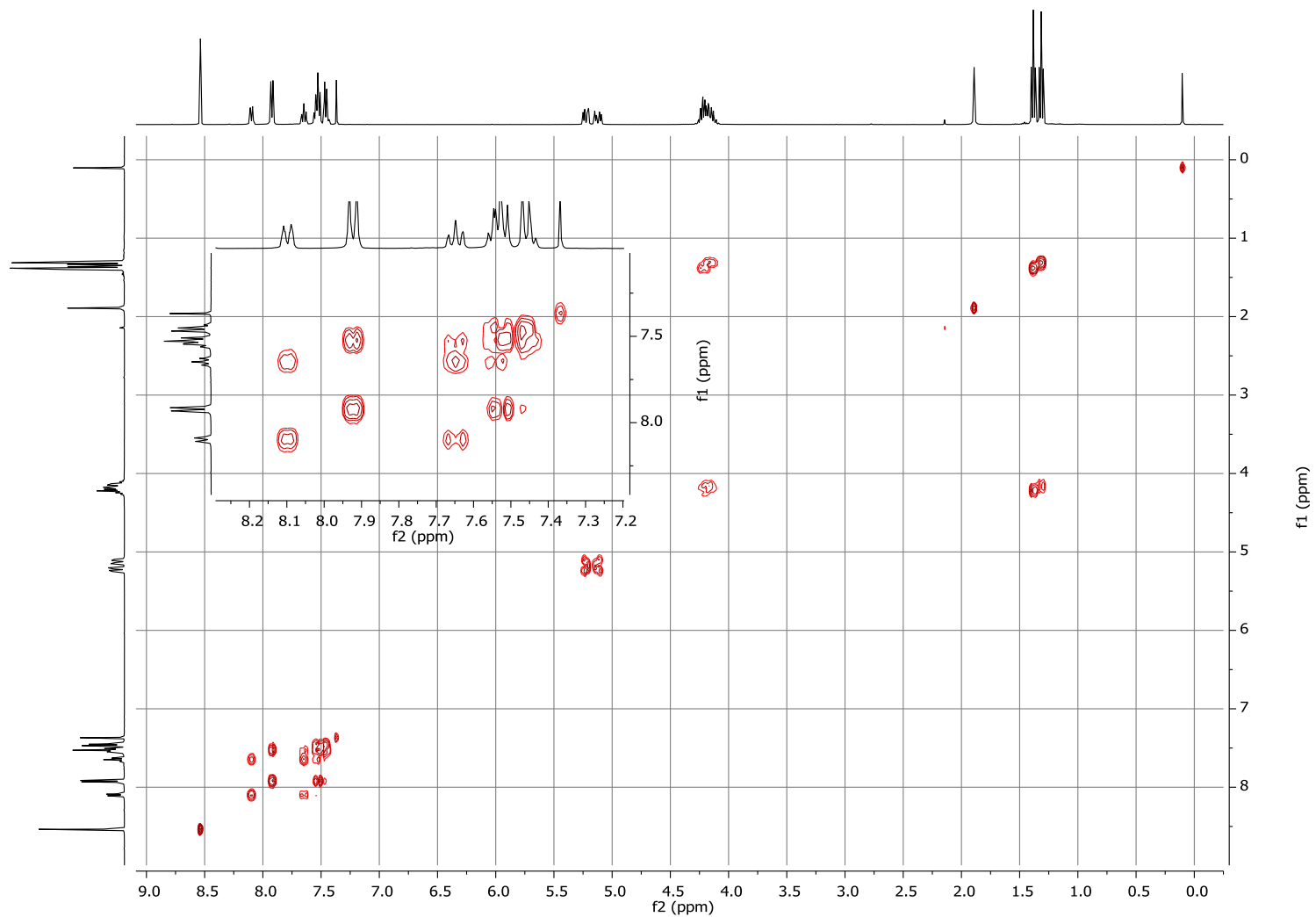
**Figure S1:** <sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>) spectrum of compound **3**.



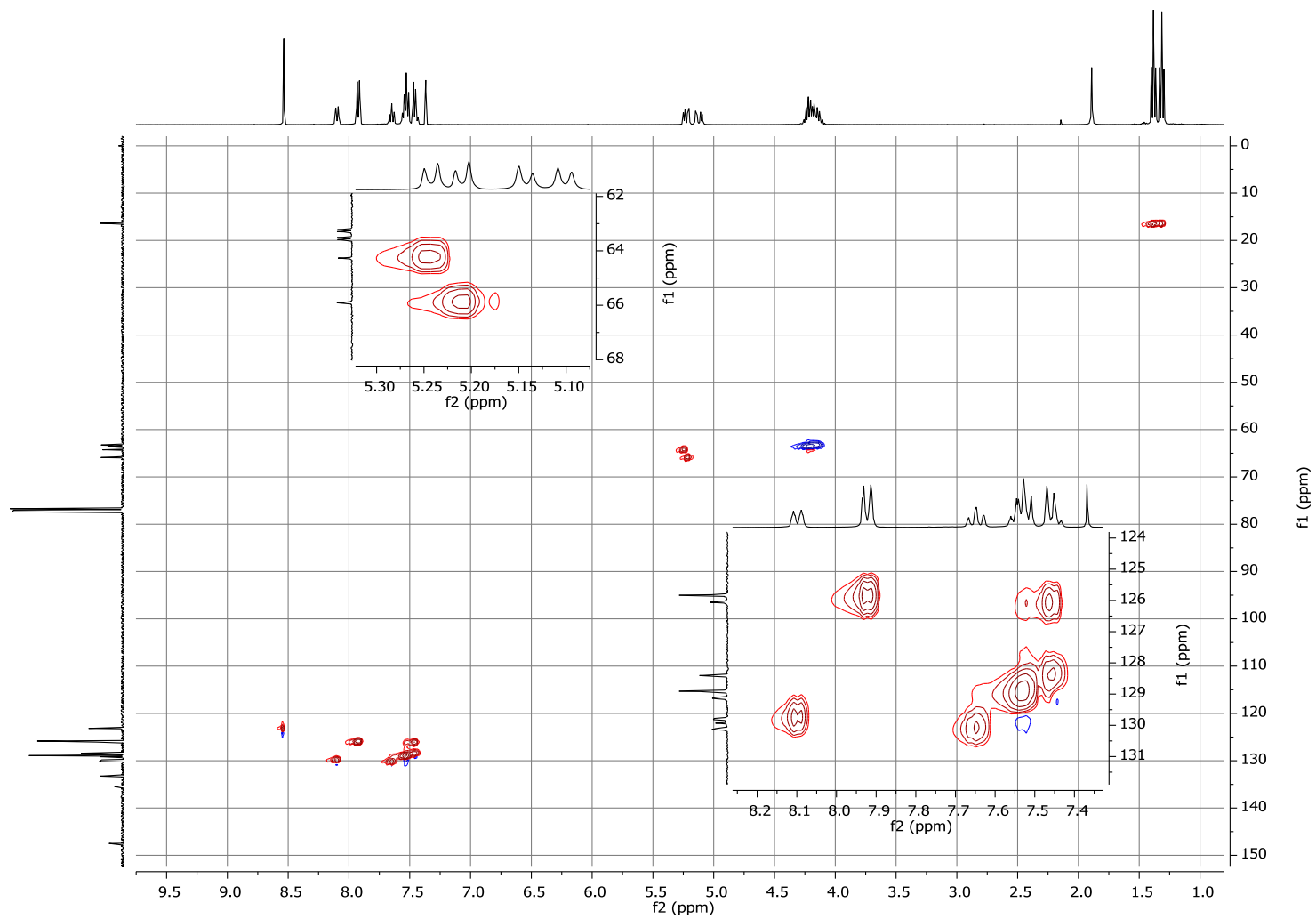
**Figure S2:**  $^{13}\text{C}\{^1\text{H}\}$  NMR (100 MHz,  $\text{CDCl}_3$ ) spectrum of compound 3.



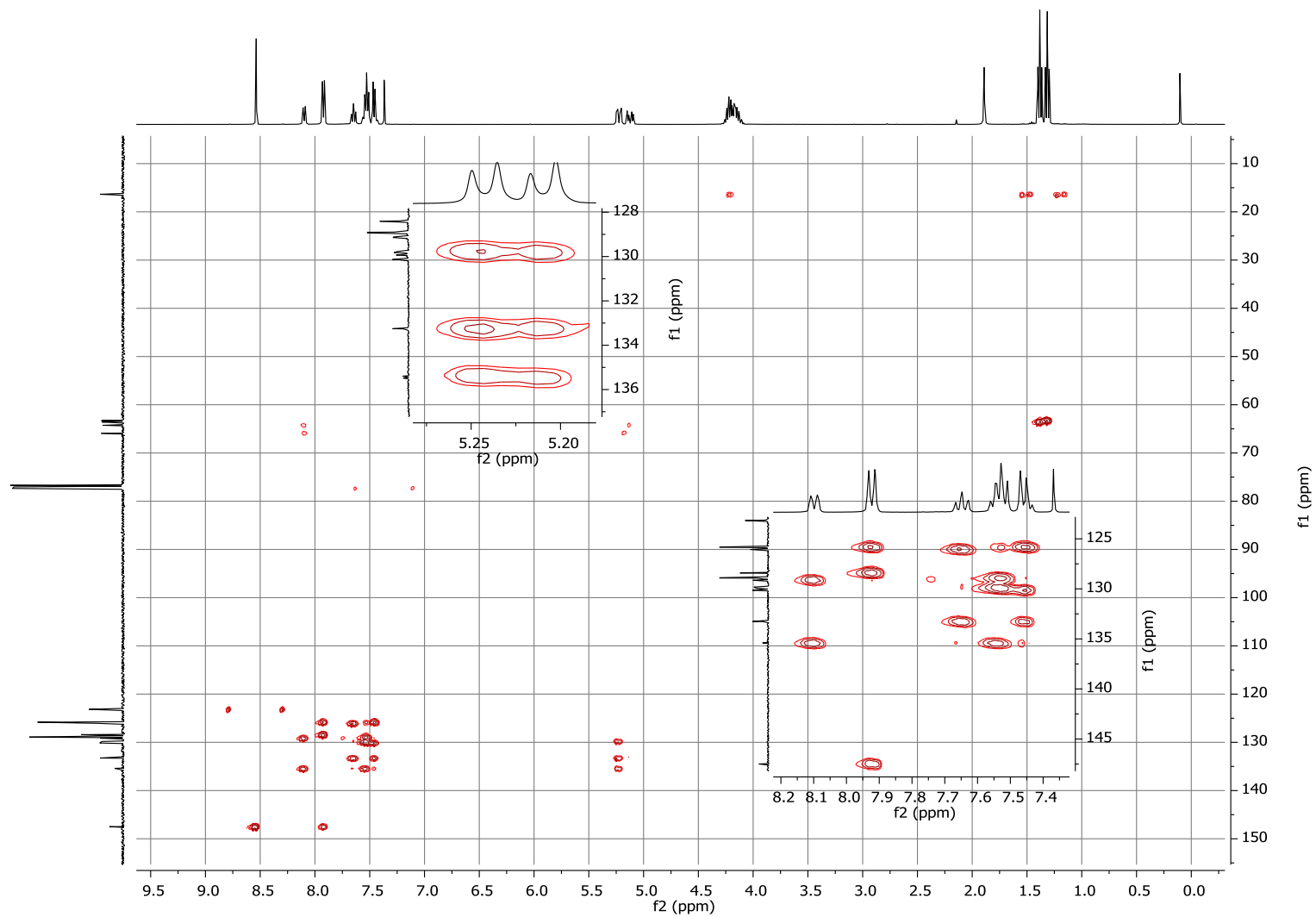
**Figure S3:**  $^{31}\text{P}$  NMR (162 MHz,  $\text{CDCl}_3$ ) spectrum of compound **3**.



**Figure S4:** COSY correlations of compound **3** in CDCl<sub>3</sub>.

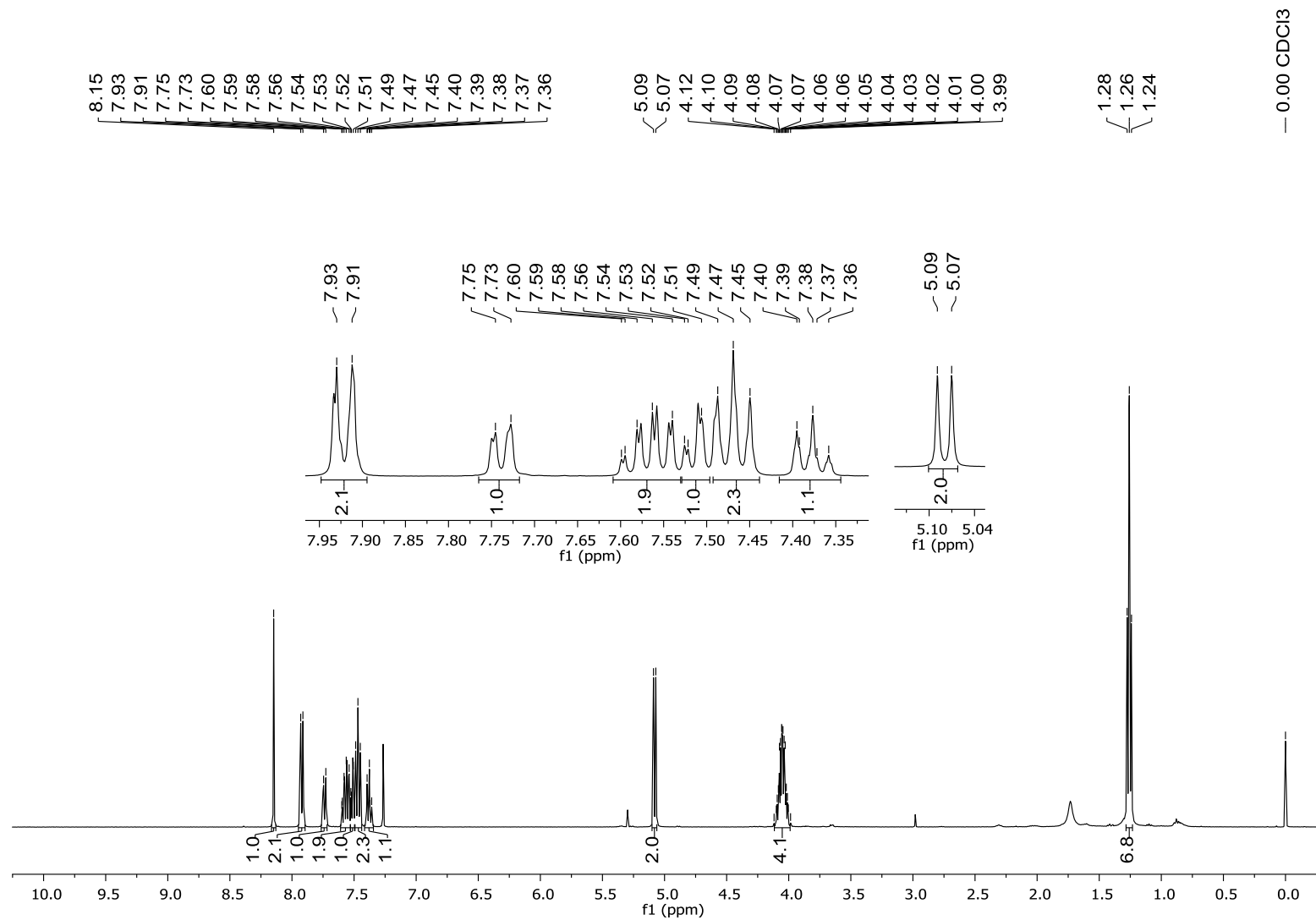


**Figure S5:** HSQC correlations of compound **3** in CDCl<sub>3</sub>.

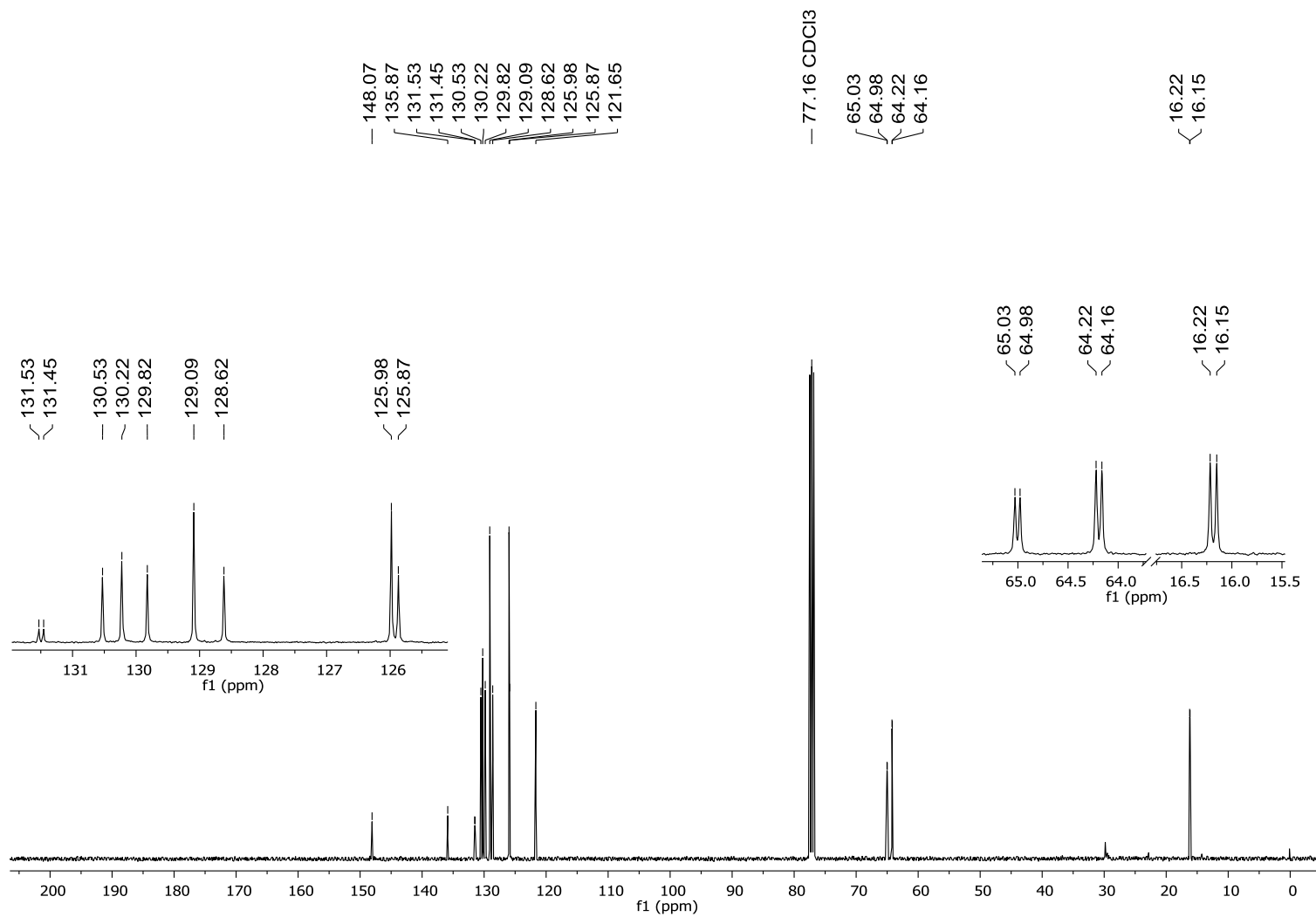


**Figure S6:** HMBC correlations of compound **3** in CDCl<sub>3</sub>.

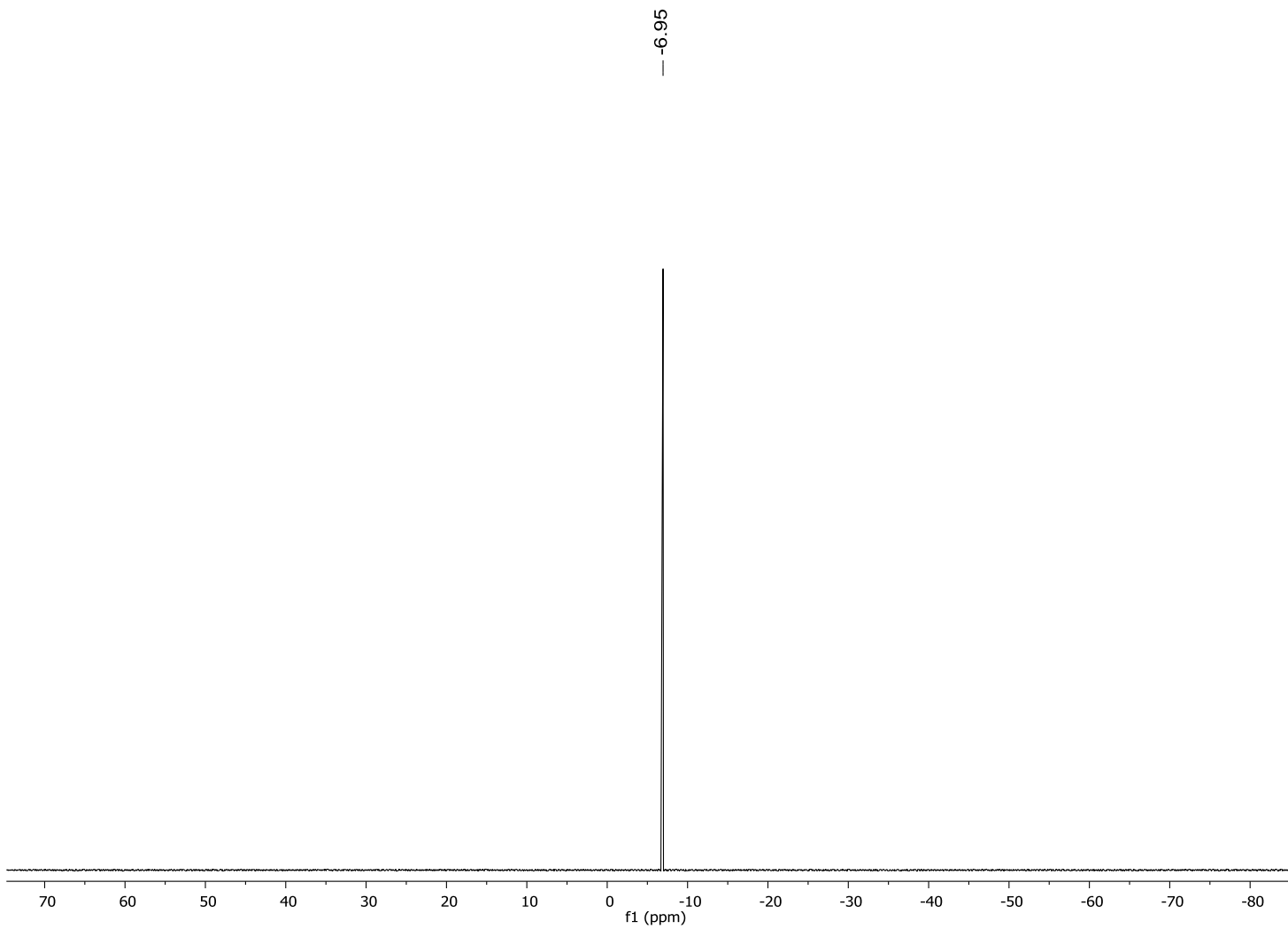




**Figure S7:**  $^1\text{H}$  NMR (400 MHz,  $\text{CDCl}_3$ ) spectrum of compound 4.



**Figure S8:**  $^{13}\text{C}\{^1\text{H}\}$  NMR (100 MHz,  $\text{CDCl}_3$ ) spectrum of compound **4**.



**Figure S9:**  $^{31}\text{P}$  NMR (162 MHz,  $\text{CDCl}_3$ ) spectrum of compound **4**.

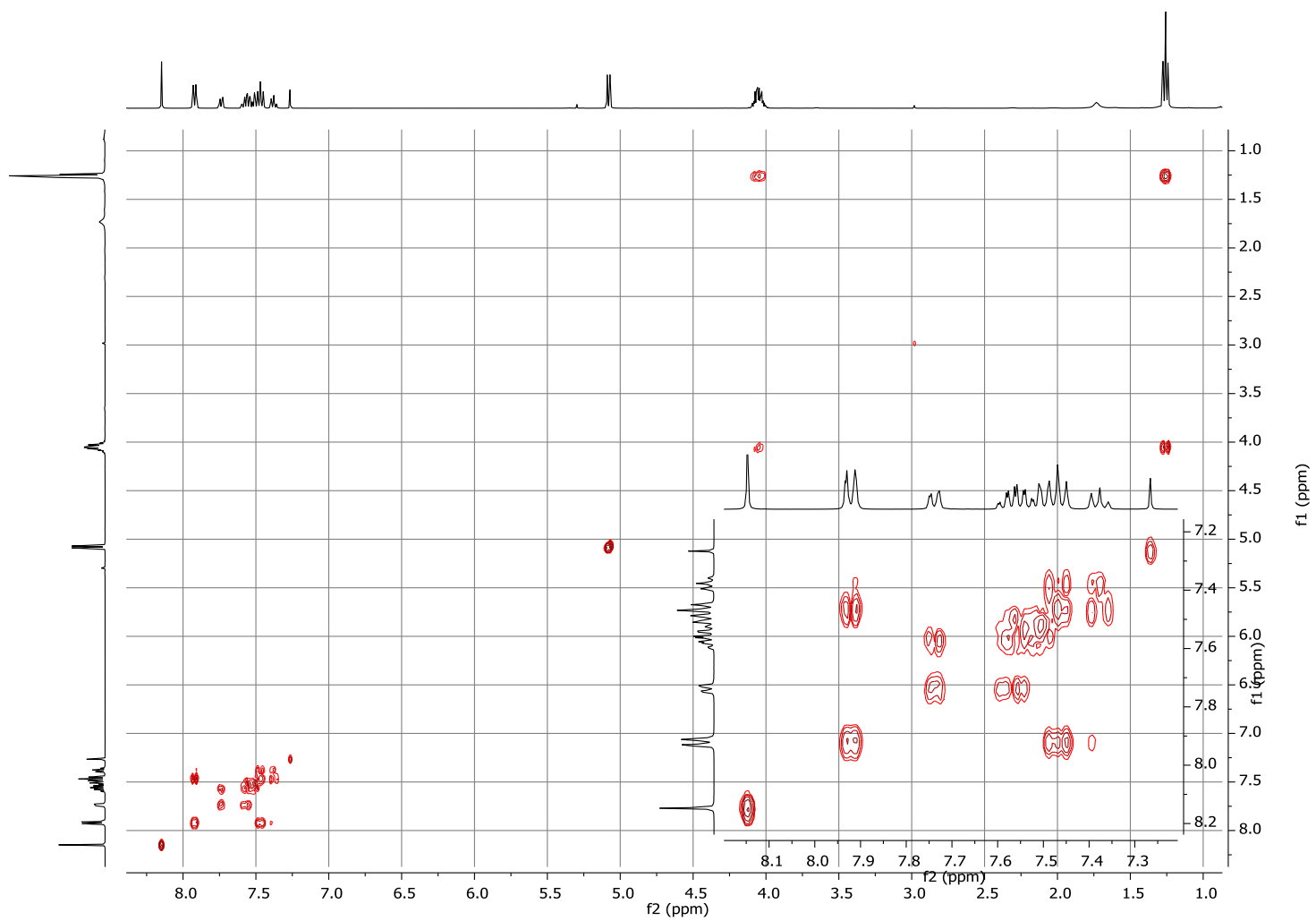
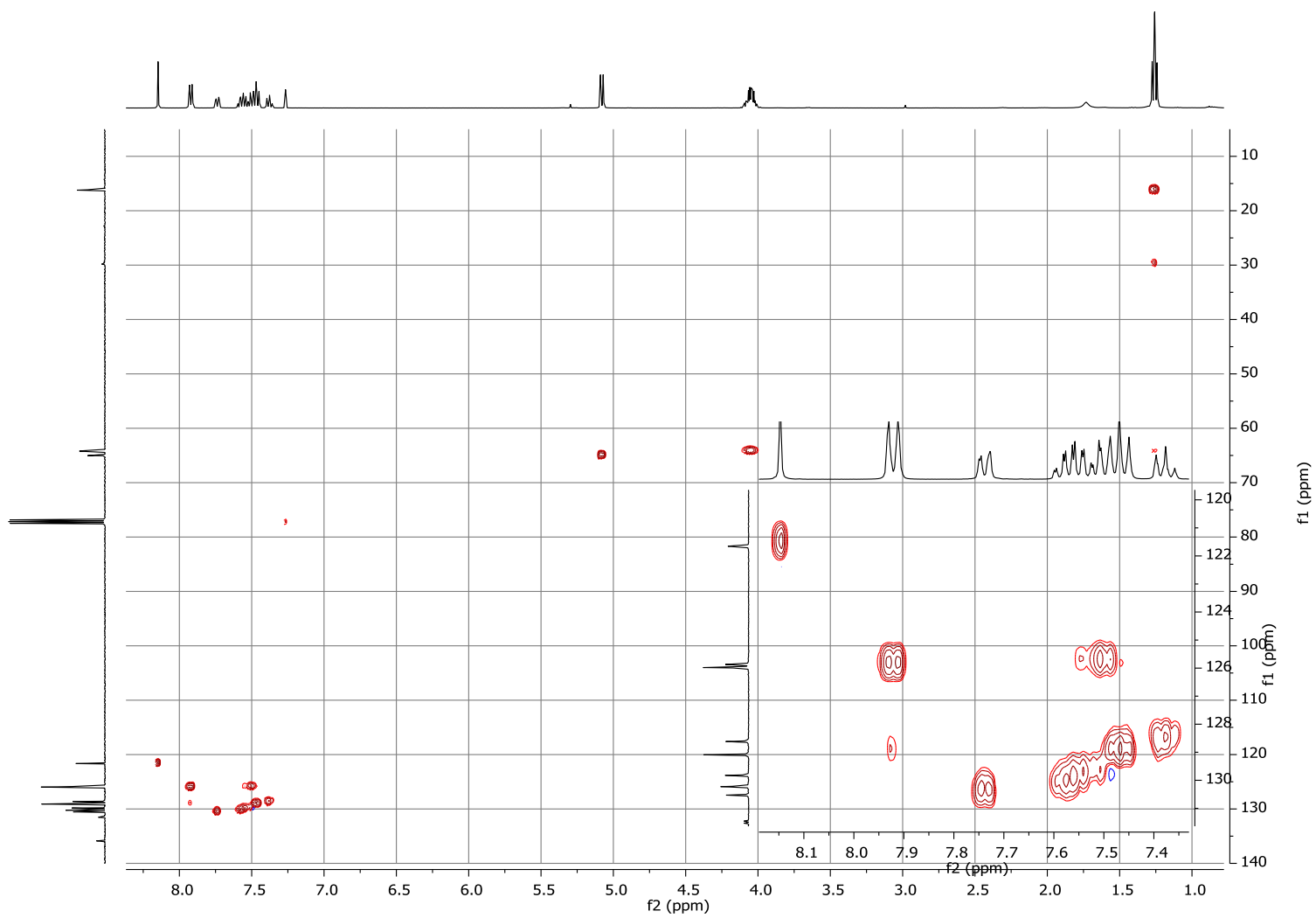
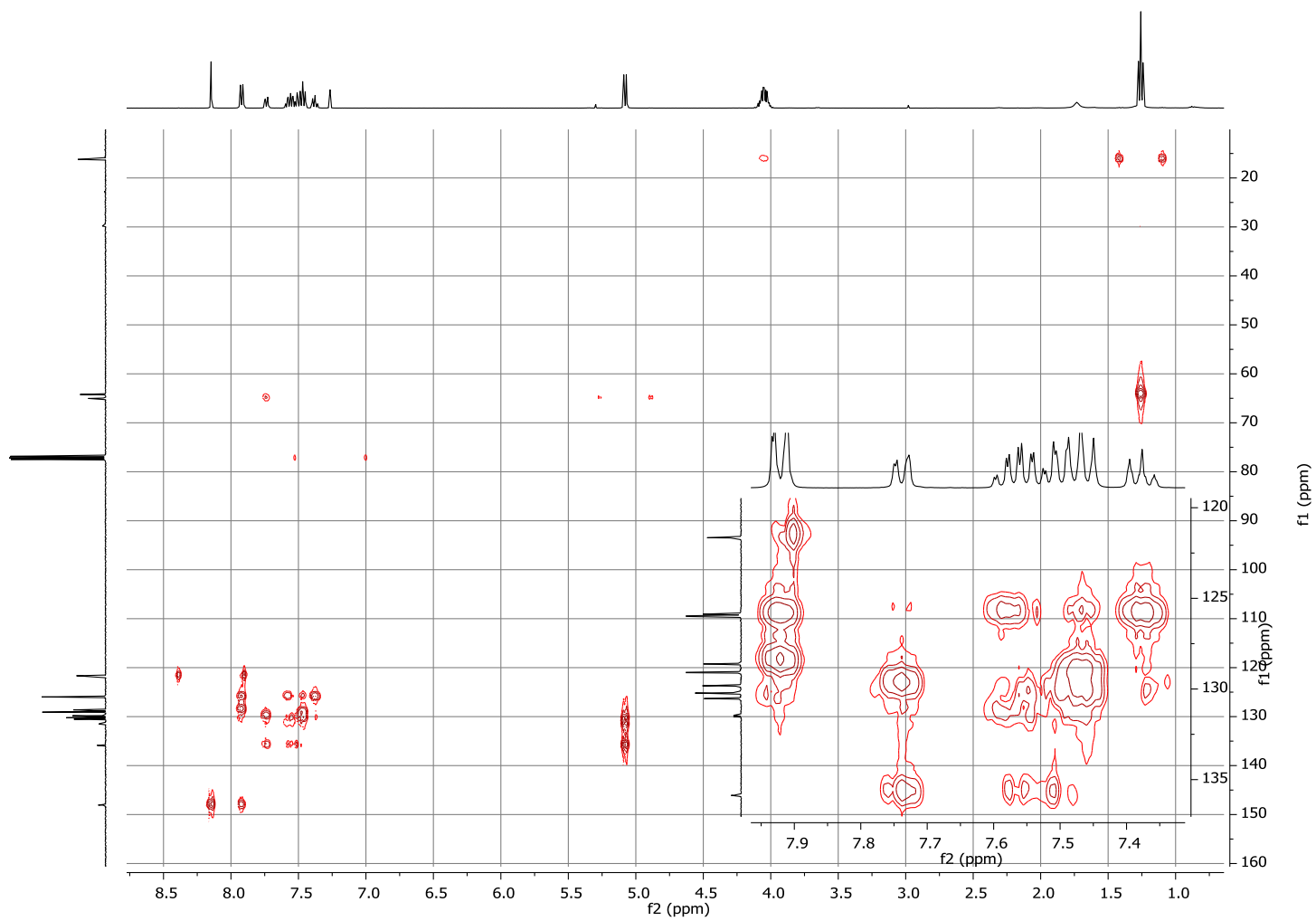


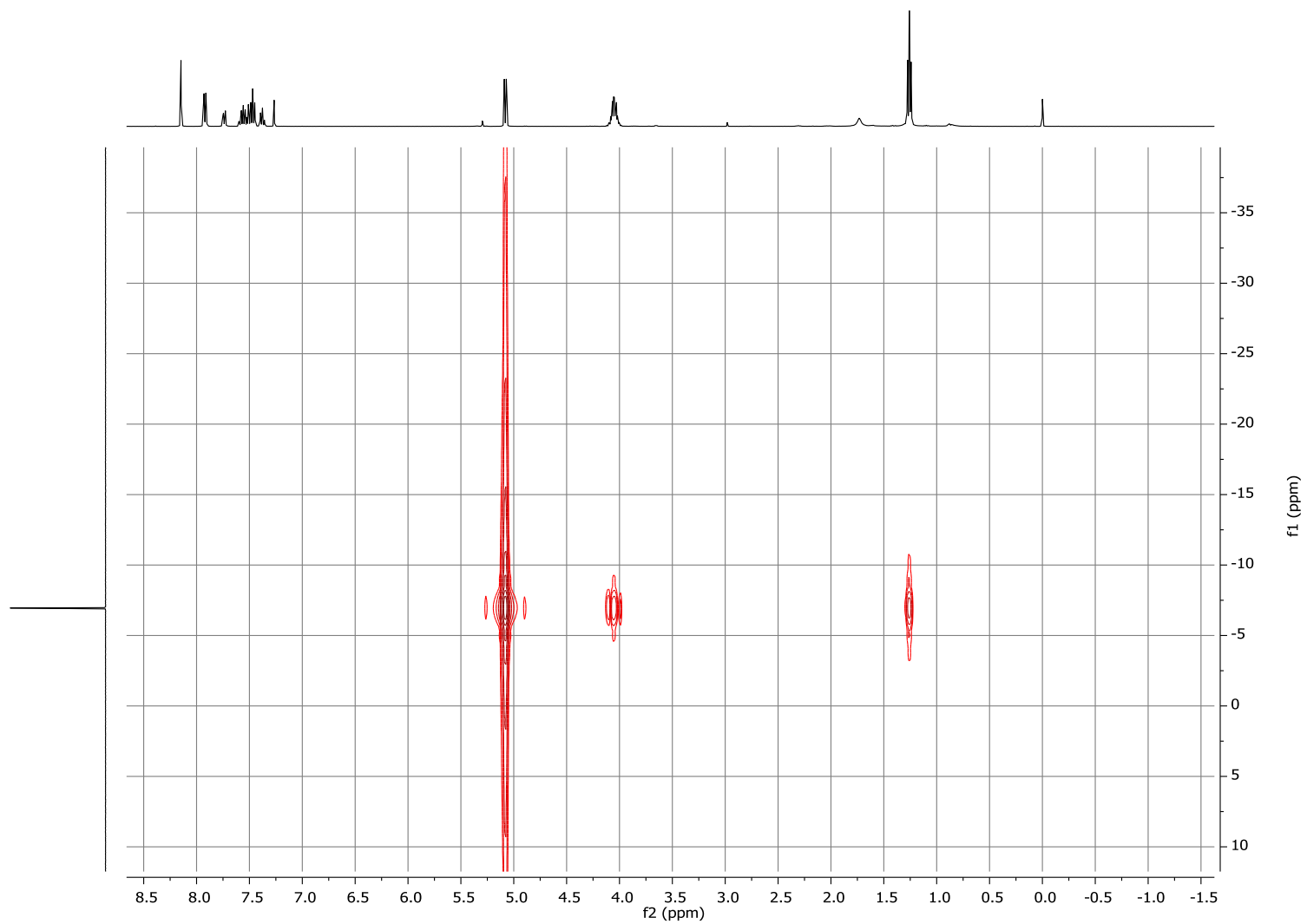
Figure S10: COSY correlations of compound 4 in CDCl<sub>3</sub>.



**Figure S11:** HSQC correlations of compound **4** in CDCl<sub>3</sub>.



**Figure S12:** HMBC correlations of compound 4 in CDCl<sub>3</sub>.



**Figure S13:** HMBC (<sup>1</sup>H-<sup>31</sup>P) correlations of compound **4** in CDCl<sub>3</sub>.