

## Supporting Information

Formation of an iron phosphino-borane complex by formal  
insertion of  $\text{BH}_3$  into the Fe-P bond

*Nicolas Frank, Katharina Hanau, Kimon Flosdorf and Robert Langer\**

## 1. NMR Spectra

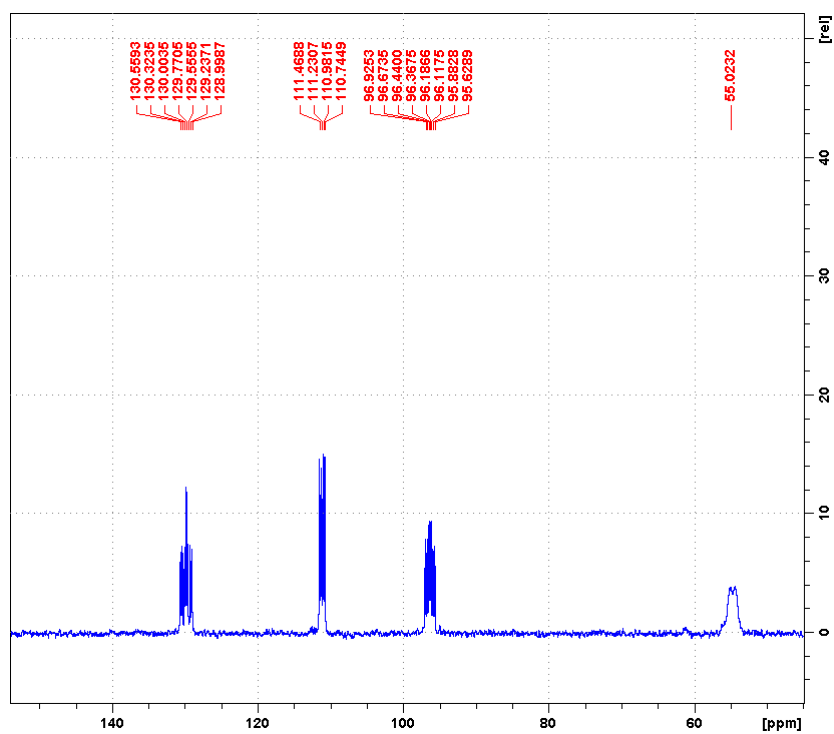


Figure S5.  $^{31}\text{P}\{^1\text{H}\}$  NMR spectrum of compound **1** in  $\text{C}_6\text{D}_6$ .

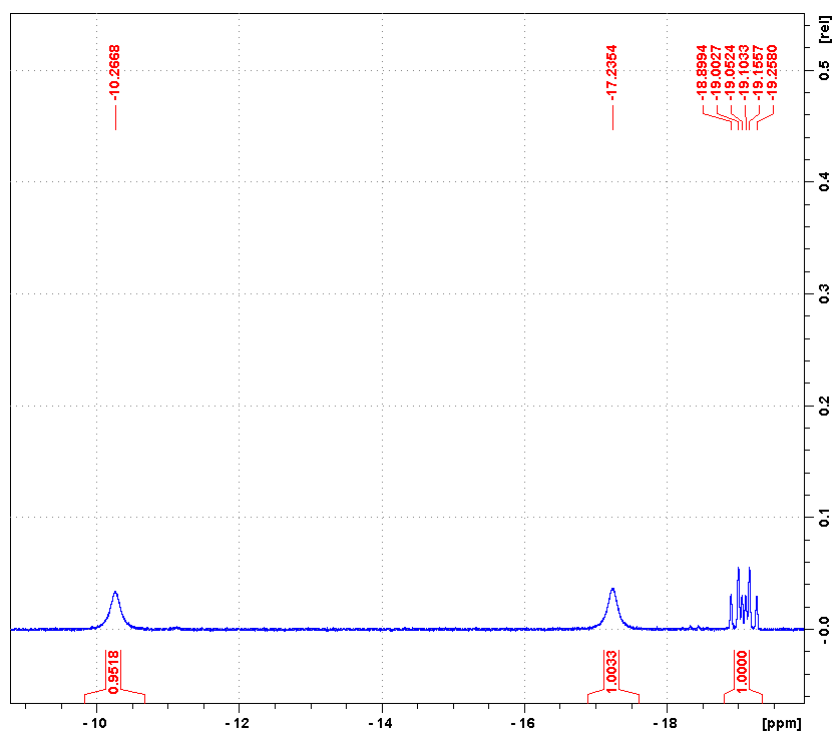
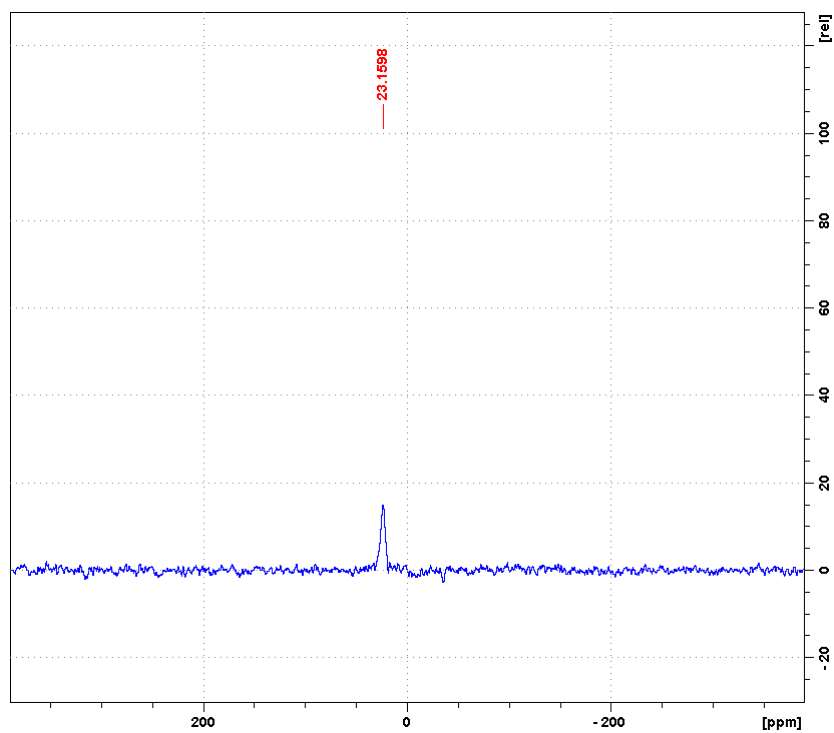
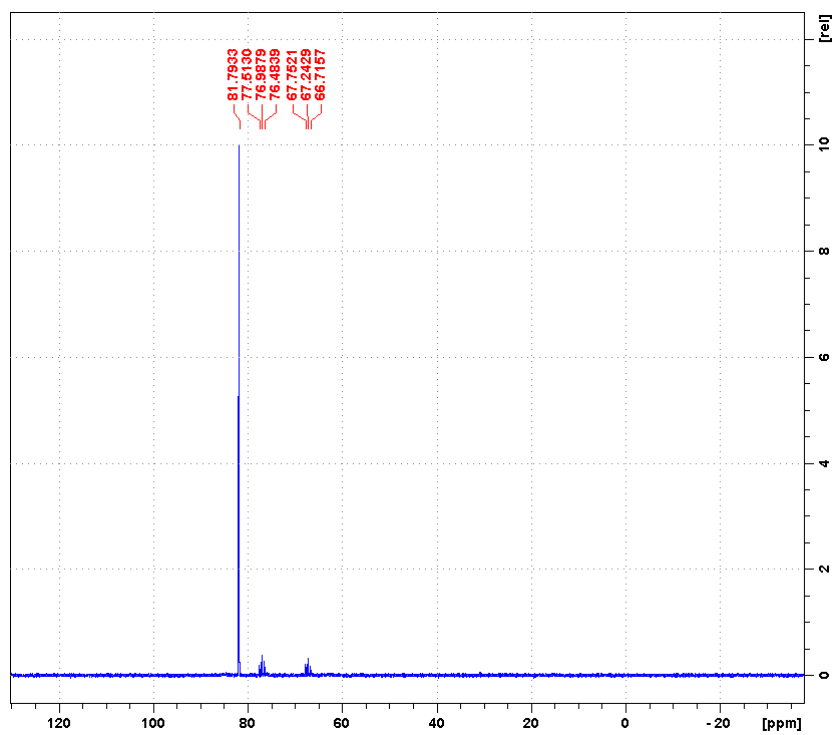


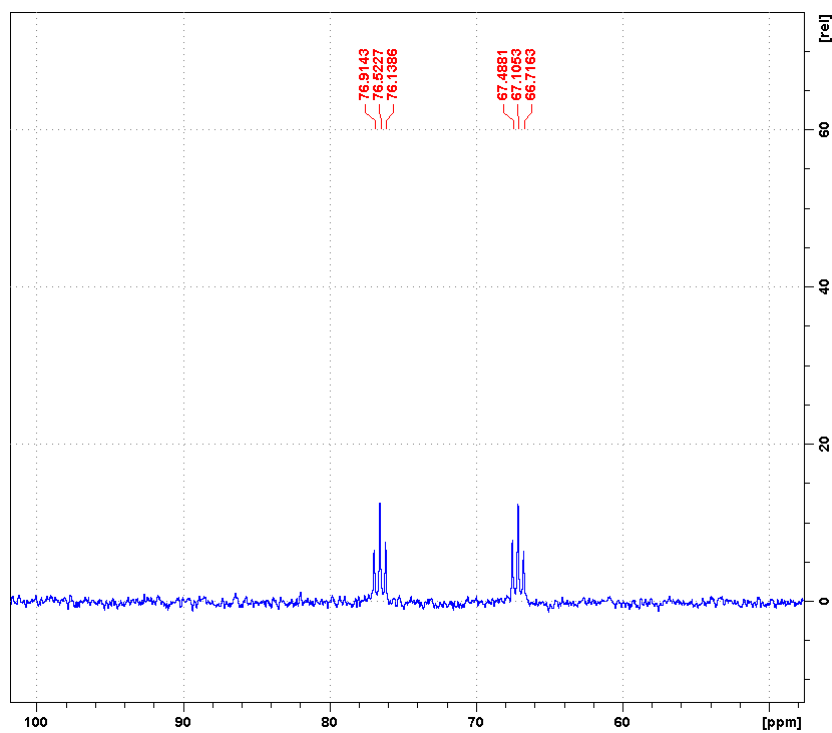
Figure S6. Hydride region in the  $^1\text{H}$  NMR spectrum of compound **1** in  $\text{C}_6\text{D}_6$ .



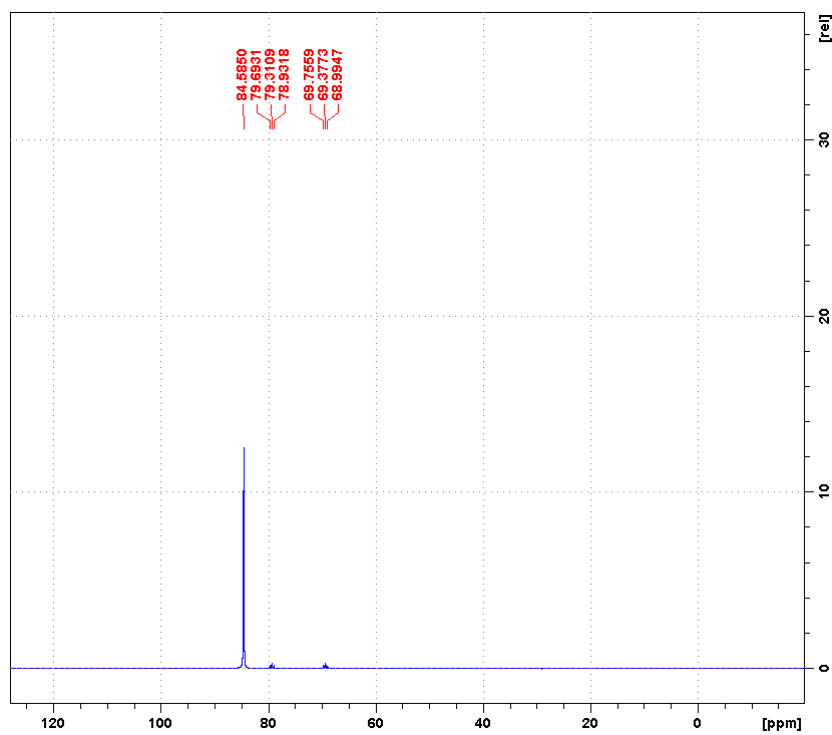
**Figure S7.**  $^{11}\text{B}$  NMR spectrum of compound **1** in  $\text{C}_6\text{D}_6$ .



**Figure S8.**  $^{31}\text{P}\{^1\text{H}\}$  NMR spectrum of the reaction mixture in MeCN/ EtOH 1:1 before addition of  $\text{NaBH}_4$  (unlocked).



**Figure S9.**  $^{31}\text{P}\{^1\text{H}\}$  NMR spectrum compound **2** in  $\text{CD}_3\text{OD}$ .



**Figure S10.**  $^{31}\text{P}\{^1\text{H}\}$  NMR spectrum compound **3** in  $\text{CD}_3\text{CN}$ .

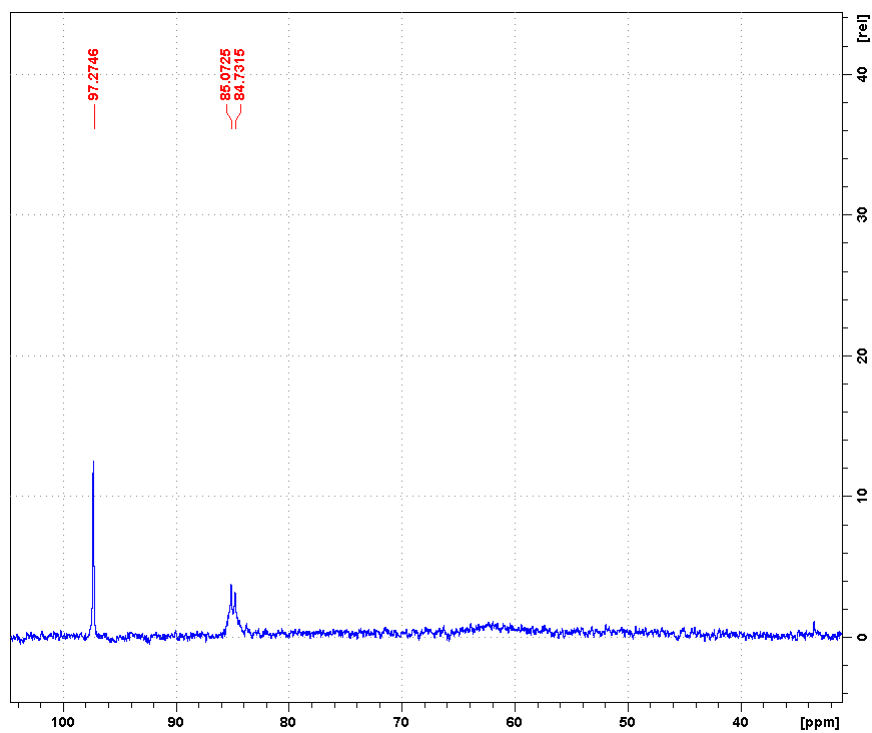


Figure S11.  $^{31}\text{P}\{^1\text{H}\}$  NMR spectrum reaction mixture in  $\text{CD}_3\text{CN}$  after addition of  $\text{NaBH}_4$ .

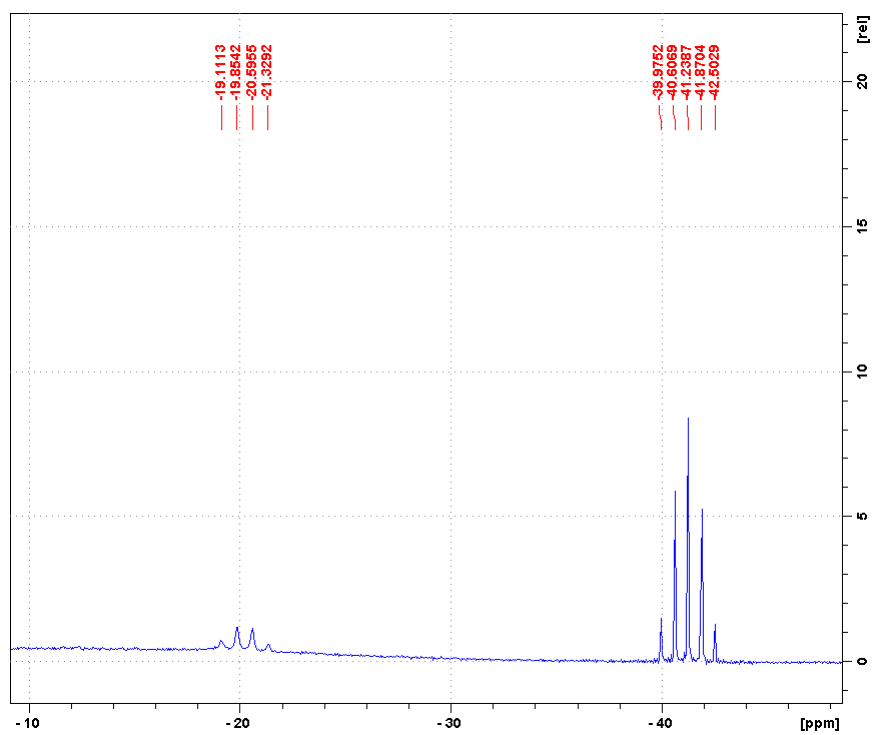


Figure S12.  $^{11}\text{B}$  NMR spectrum reaction mixture in  $\text{CD}_3\text{CN}$  after addition of  $\text{NaBH}_4$ .