

Supplementary Information

***N*-(diisopropylphosphanyl)benzamide**

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Table S1. Crystal data and structure refinement for compound **1**

Empirical formula	$\text{C}_{13}\text{H}_{20}\text{NOP}$	
Formula weight	237.27	
Temperature	193(2) K	
Wavelength	0.71073 Å	
Crystal system	Monoclinic	
Space group	$P2_1/c$	
Unit cell dimensions	$a = 15.482(3)$ Å	$\alpha = 90^\circ$.
	$b = 8.741(2)$ Å	$\beta = 98.382(10)^\circ$.
	$c = 10.260(2)$ Å	$\gamma = 90^\circ$.
Volume	$1373.7(5)$ Å ³	
Z	4	
Density (calculated)	1.147 Mg/m ³	
Absorption coefficient	0.182 mm ⁻¹	
F(000)	512	
Crystal size	0.100 x 0.080 x 0.050 mm ³	
Theta range for data collection	2.660 to 25.245°.	
Index ranges	$-18 \leq h \leq 18$, $-9 \leq k \leq 10$, $-12 \leq l \leq 11$	
Reflections collected	2489	
Independent reflections	2489 [R(int) = 0.0843]	
Completeness to theta = 25.242°	99.9 %	
Absorption correction	Semi-empirical from equivalents	
Max. and min. transmission	0.7460 and 0.6523	
Refinement method	Full-matrix least-squares on F ²	
Data / restraints / parameters	2489 / 291 / 183	
Goodness-of-fit on F ²	1.113	
Final R indices [I > 2sigma(I)]	R1 = 0.0864, wR2 = 0.1842	
R indices (all data)	R1 = 0.1289, wR2 = 0.2003	
Extinction coefficient	n/a	
Largest diff. peak and hole	0.380 and -0.322 e.Å ⁻³	

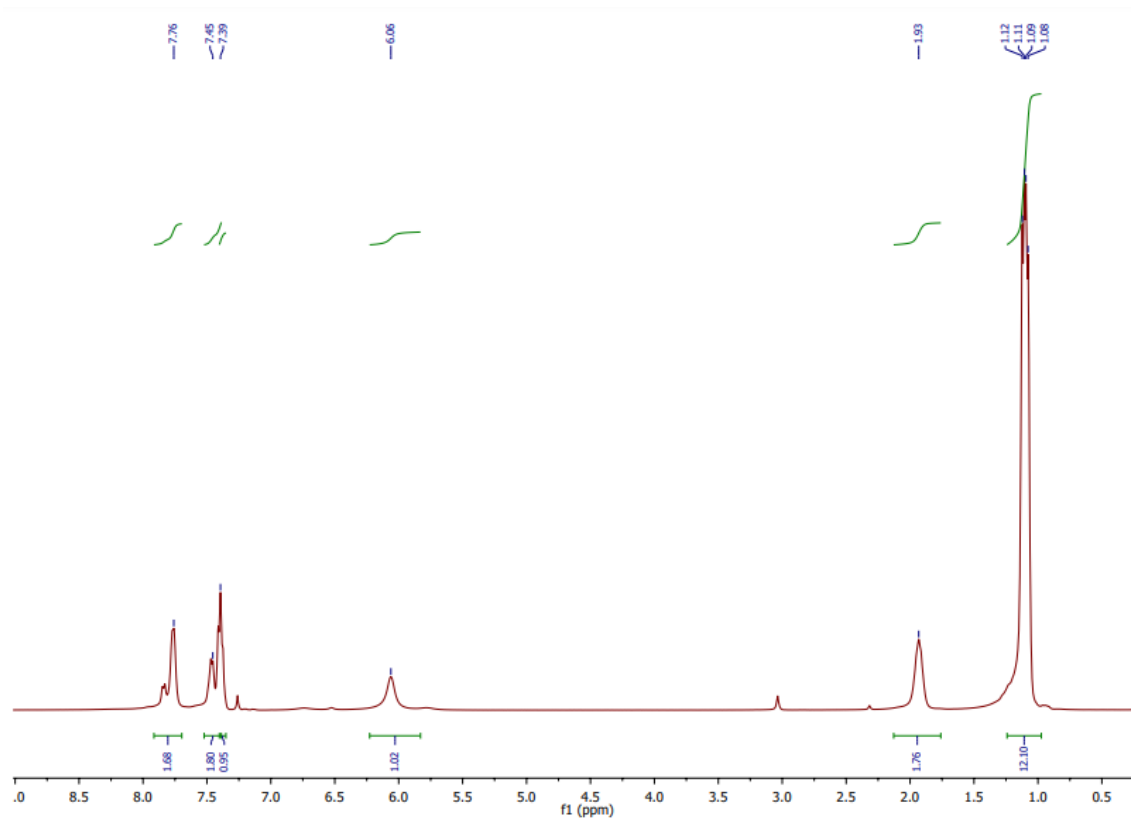


Figure S1. ¹H NMR spectrum of **1** (400 MHz, CDCl₃).

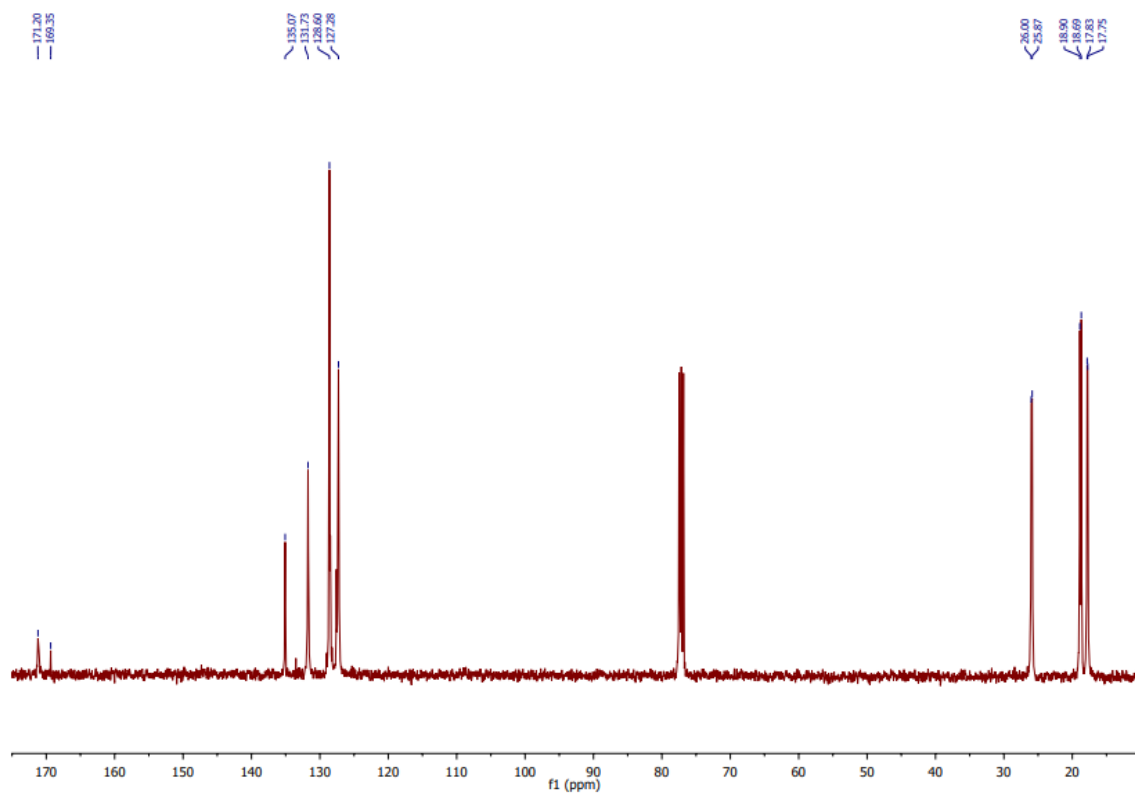


Figure S2. ¹³C{¹H} NMR spectrum of **1** (100 MHz, CDCl₃).

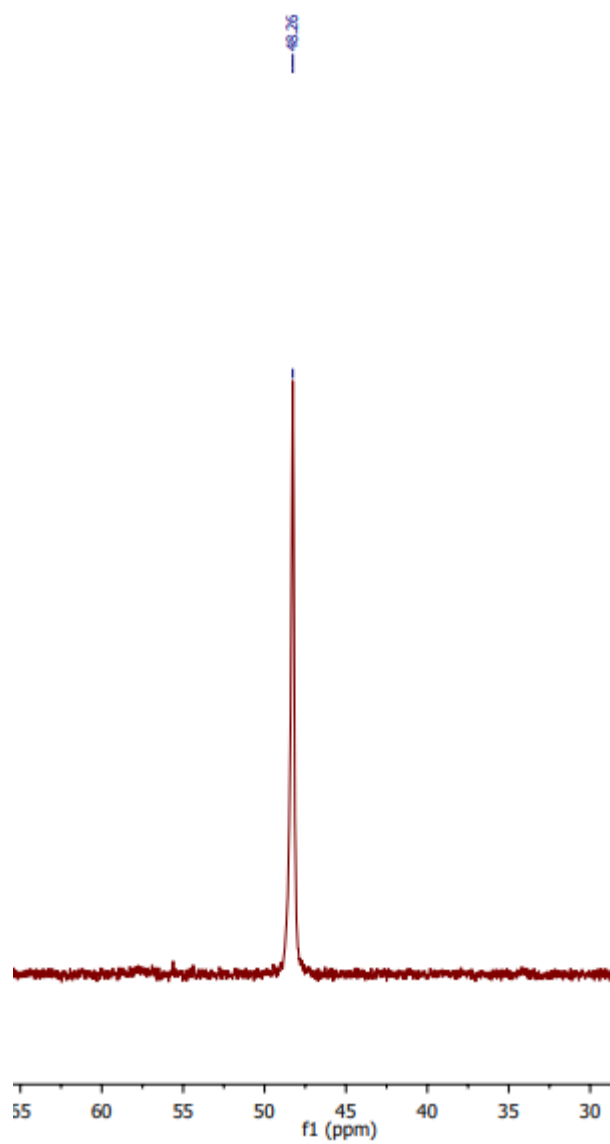


Figure S3. $^{31}\text{P}\{^1\text{H}\}$ NMR spectrum of **1** (162 MHz, CDCl_3).

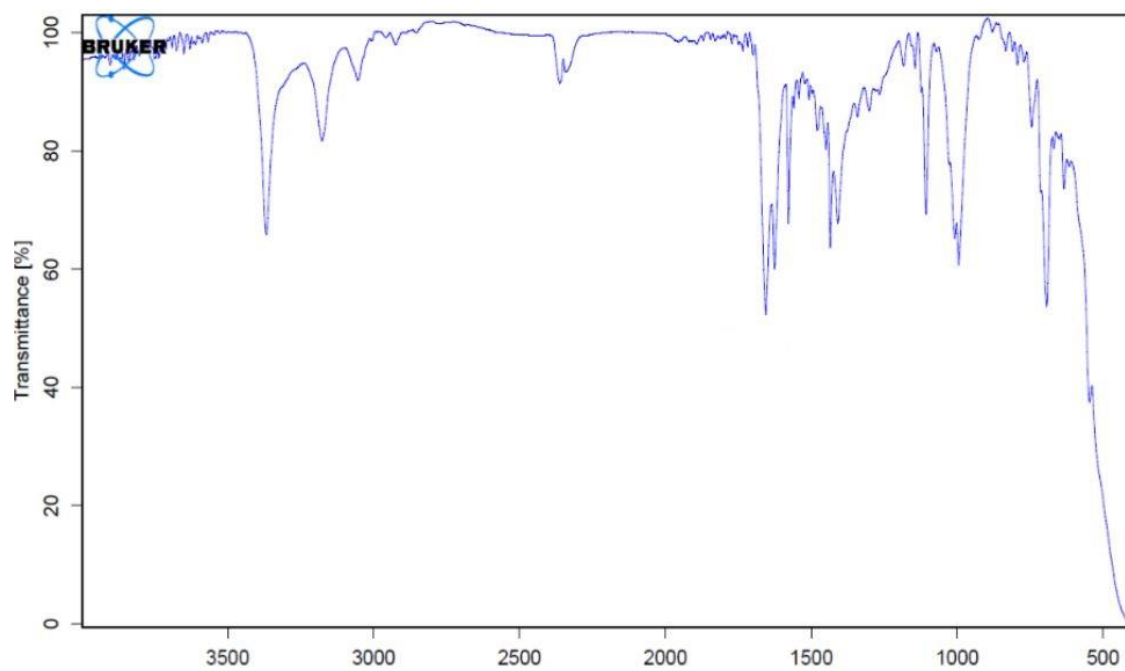


Figure S4. FT-IR spectrum of **1** (neat).