

Supporting Information for

(Decacarbonyl)(1-isopropyl-2-phenyl-1,2,5,6-tetrahydroacenaphtho[5,6-cd][1,2]diphosphole)ditungsten(0)

Zachary H. Davis, Laurence J. Taylor, Cameron L. Carpenter-Warren, Alexandra M. Z. Slawin,
Petr Kilian, Brian A. Chalmers*

04032017-3-pk-zhd-A.10.fid

^1H Observe

ZD_W

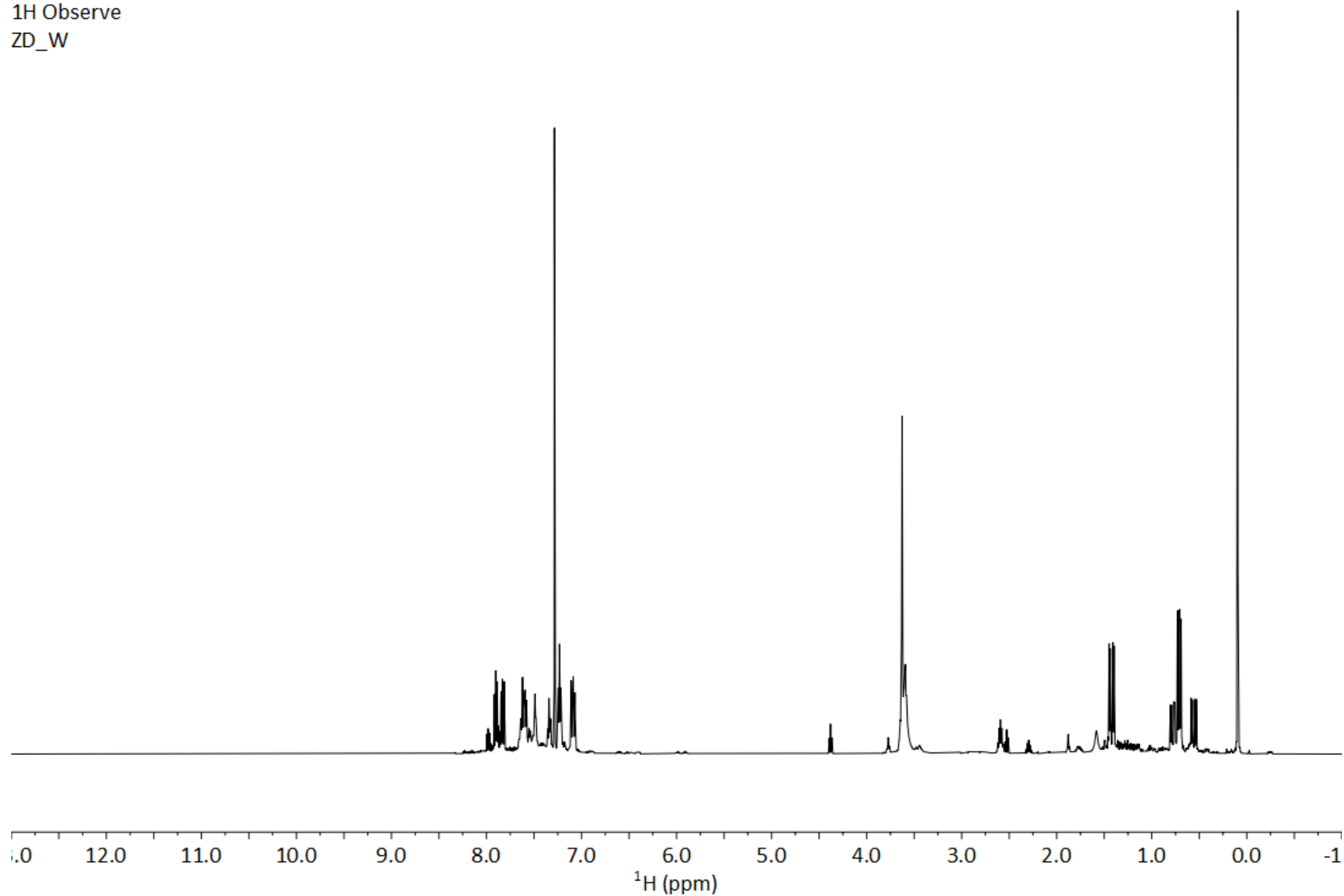


Figure S1: ^1H NMR spectrum of **1**, acquired in CDCl_3 at 500 MHz at ambient conditions.

04032017-3-pk-zhd-A.11.fid
13C Observe with 1H decoupling - UDEFT
ZD_W

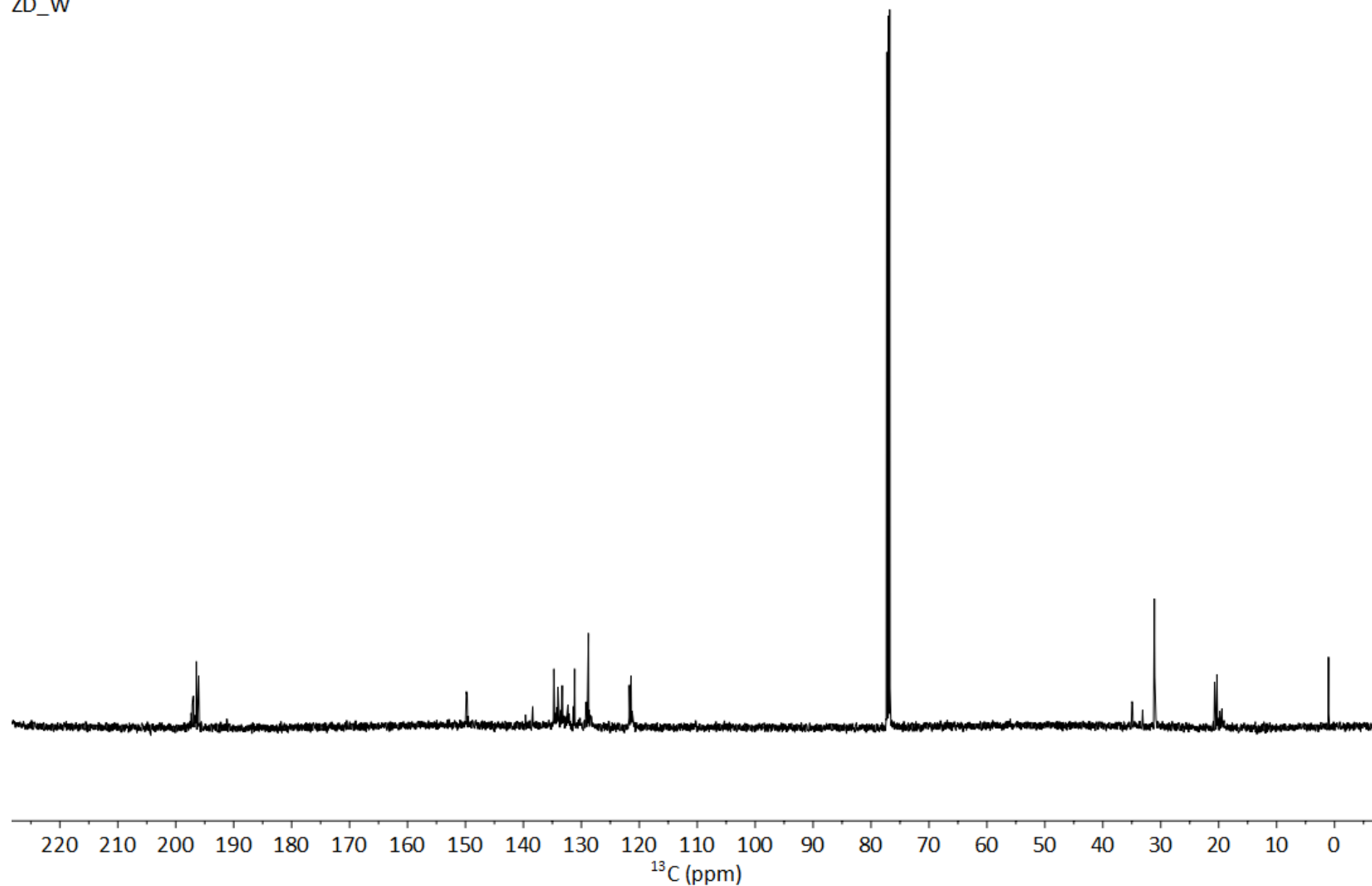


Figure S2: $^{13}\text{C}\{^1\text{H}\}$ NMR spectrum of **1**, acquired in CDCl_3 at 126 MHz at ambient conditions.

02132017-4-pk-zhd-A.11.fid
31P Observe with 1H decoupling
31P_ZD006a_CDCl3

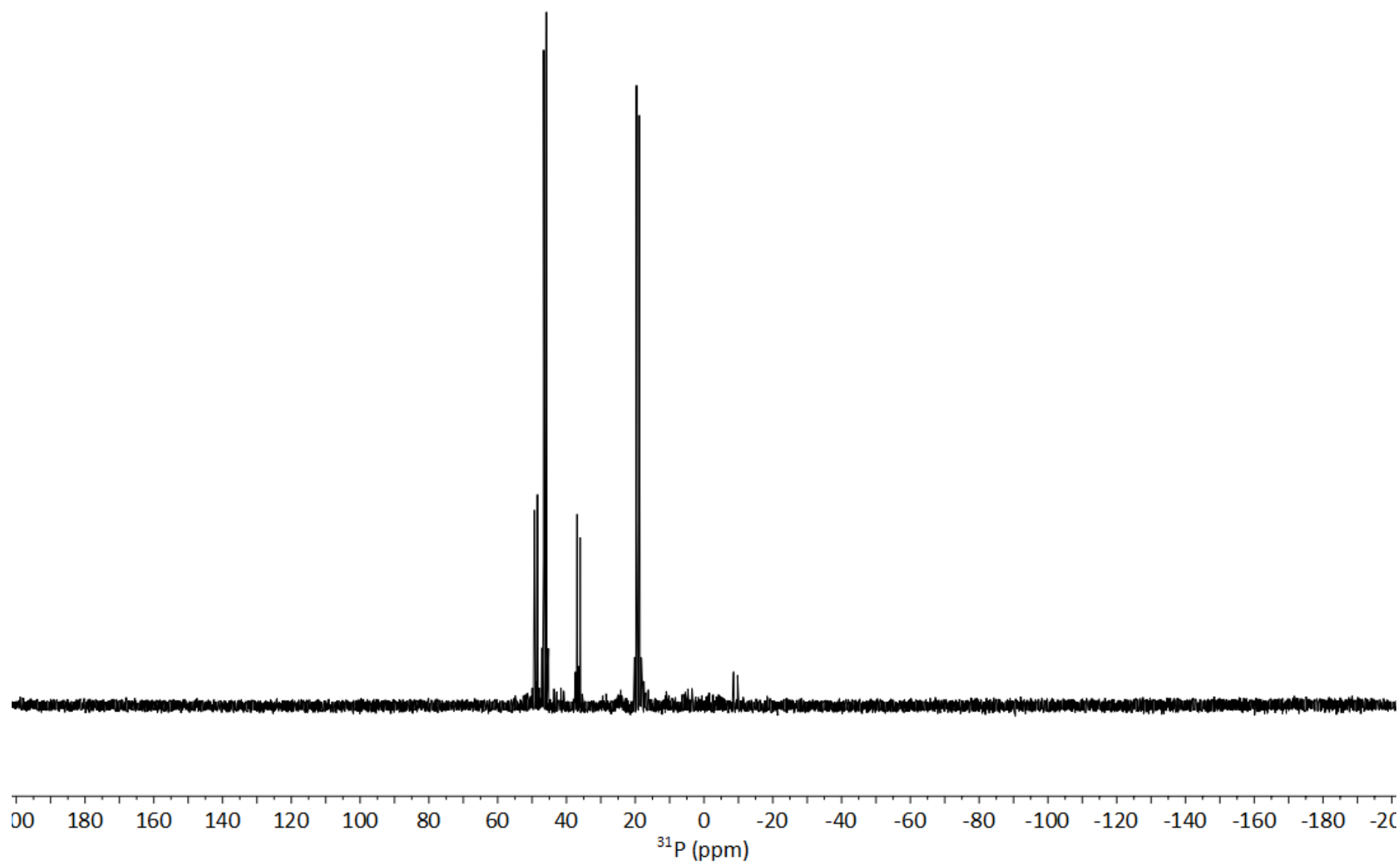


Figure S3: $^{31}\text{P}\{^1\text{H}\}$ NMR spectrum of **1**, acquired in CDCl_3 at 202 MHz at ambient conditions.

02132017-4-pk-zhd-A.11.fid
31P Observe with 1H decoupling
31P_ZD006a_CDCI3

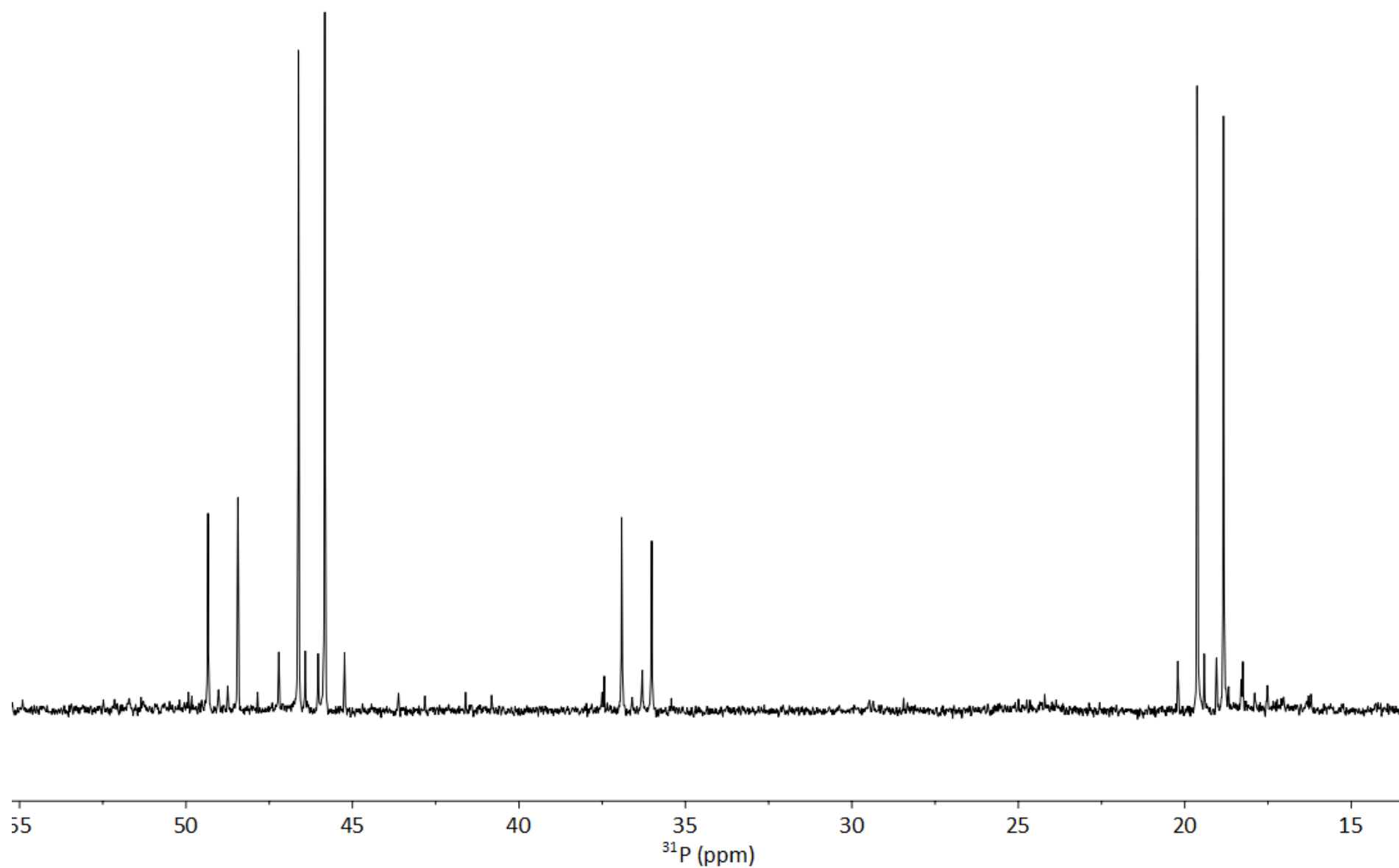


Figure S4: Expansion of the $^{31}\text{P}\{^1\text{H}\}$ NMR spectrum of **1**, acquired in CDCl_3 at 202 MHz at ambient conditions.

Table S1. Selected crystallographic data.

	1
Formula	C ₃₁ H ₂₀ O ₁₀ P ₂ W ₂
F _w	982.14
Crystal description	Colourless prism
Crystal size [mm ³]	0.210×0.210×0.160
Space group	<i>P</i> -1 (#2)
<i>a</i> [Å]	9.913(2)
<i>b</i> [Å]	9.930(2)
<i>c</i> [Å]	15.934(4)
α [°]	92.990(6)
β [°]	96.8585(10)
γ [°]	90.360(8)
vol [Å] ³	1555.0(6)
<i>Z</i>	2
ρ (calc) [g/cm ³]	2.097
μ [cm ⁻¹]	75.601
F(000)	982
2 θ _{max} [°]	50.7
2 θ range [°]	4.606 – 50.772
Index range	–11 ≤ <i>h</i> ≤ 11 –11 ≤ <i>k</i> ≤ 11 –18 ≤ <i>l</i> ≤ 19
Reflections collected	19843
Independent reflections)	5544
GoF on <i>F</i> ²	1.099
<i>R</i> ₁ [<i>I</i> > 2 σ (<i>I</i>)]	0.0705
<i>wR</i> ₂ (all data)	0.2200
Largest diff. peak/hole [e/Å ³]	9.04, –5.71