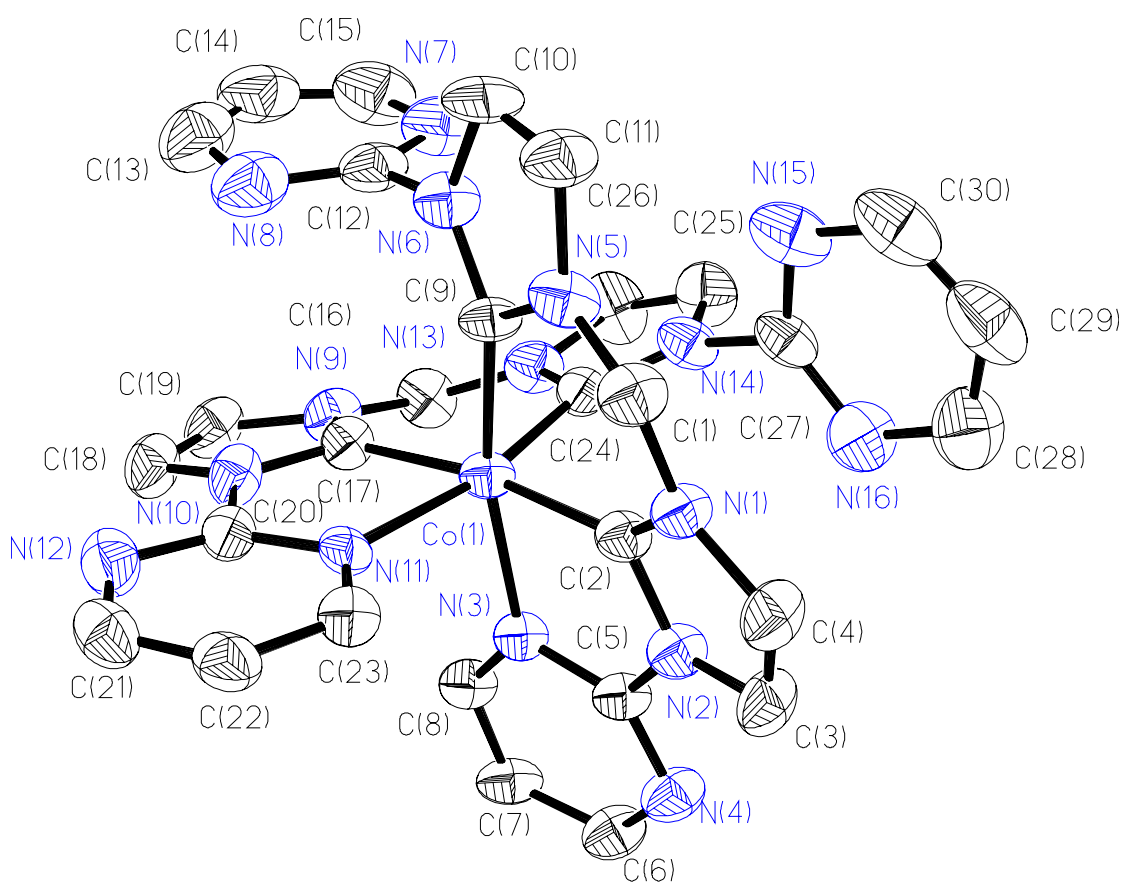


Cobalt(III) Complexes Bearing Bidentate, Tridentate, and Tetradentate N-Heterocyclic Carbenes: Synthesis, X-ray Structures, and Catalytic Activities

Zhenxing Xi, Bin Liu, Chunxin Lu, and Wanzhi Chen *

Department of Chemistry, Xixi Campus, Zhejiang University, Hangzhou 310028, P. R. China

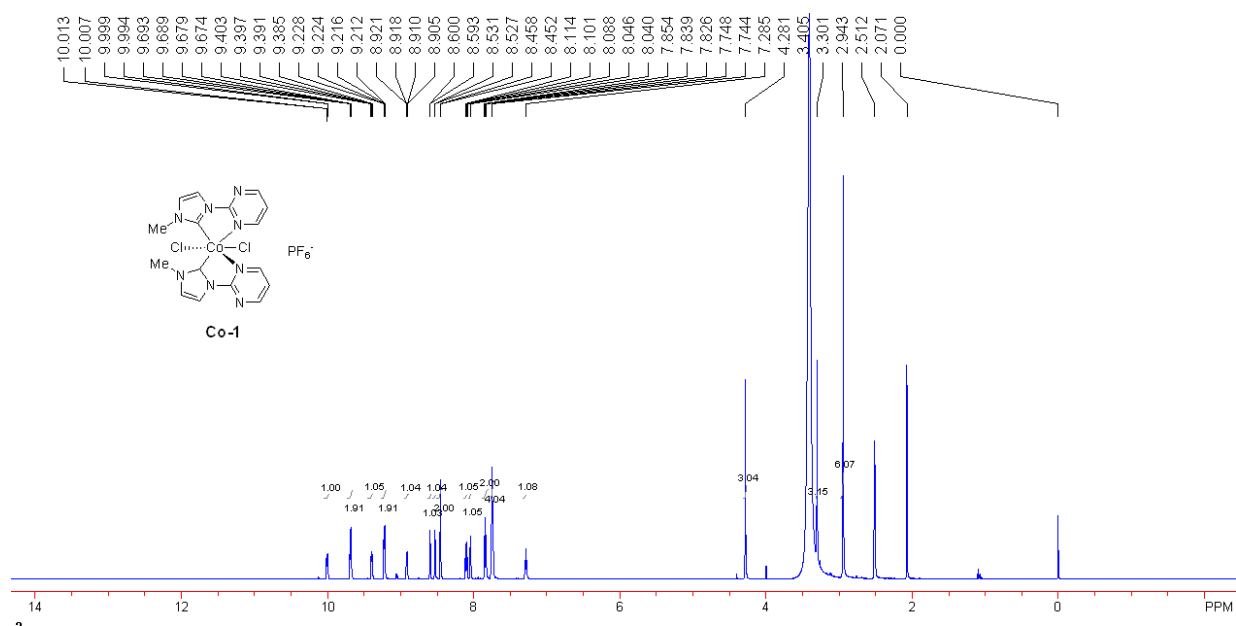
I. Figure S1, molecular structure of **Co-3**.



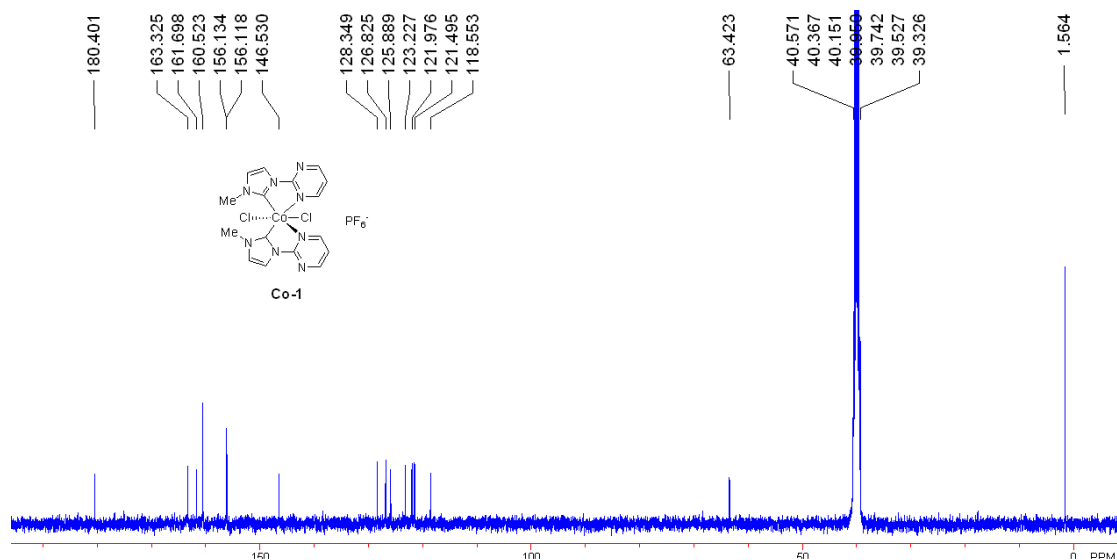
II. Summary of the crystallographic data for **Co-3**.

[Co(L9)]. (PF ₆) ₃ , Co-3	
Formula	C ₃₄ H ₃₀ CoF ₁₈ N ₁₈ P ₃
Fw	1184.60
Crystal system	monoclinic
Space group	P2(1)/c
<i>a</i> , Å	10.7754(15)
<i>b</i> , Å	23.792(3)
<i>c</i> , Å	18.221(2)
<i>α</i> , deg.	90
<i>β</i> , deg.	97.452(2)
<i>γ</i> , deg.	90
<i>V</i> , Å ³	4631.8(10)
<i>Z</i>	4
<i>D</i> _{calcd} , Mg/m ³	1.699
Reflections collected	23278
Reflections independent (<i>R</i> _{int})	8158(0.1567)
Goodness-of-fit on <i>F</i> ²	0.984
<i>R</i> (<i>I</i> > 2σ <i>I</i>)	0.1194, 0.3165

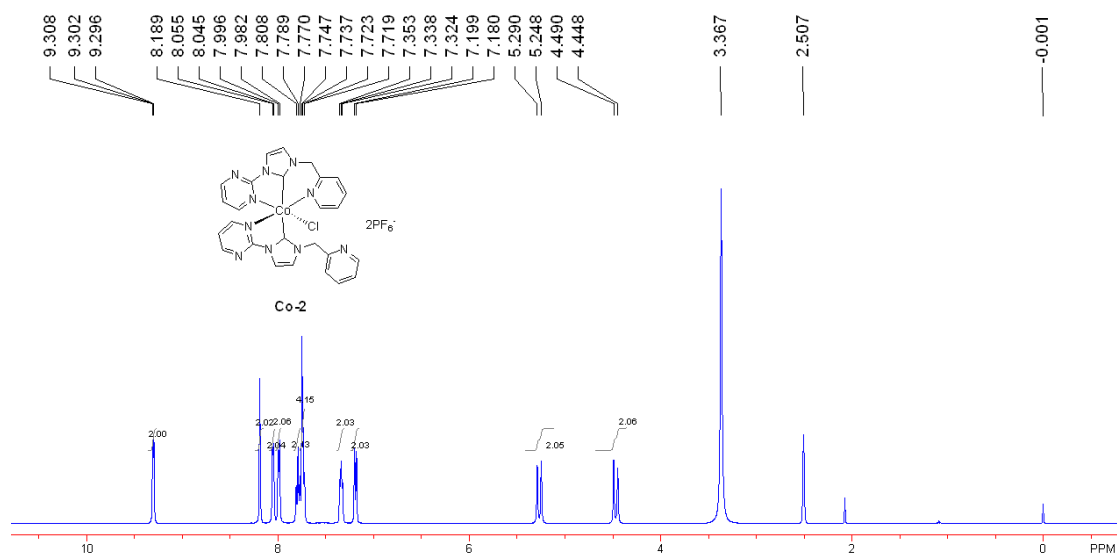
III. ^1H NMR Spectrum of **Co-1**.



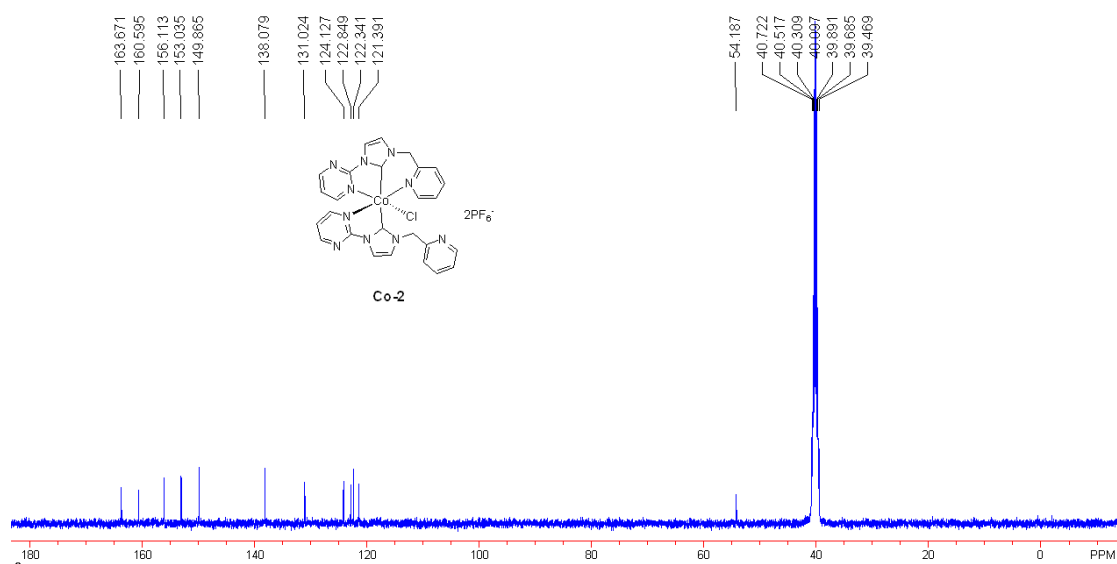
IV. ^{13}C NMR Spectrum of **Co-1**.



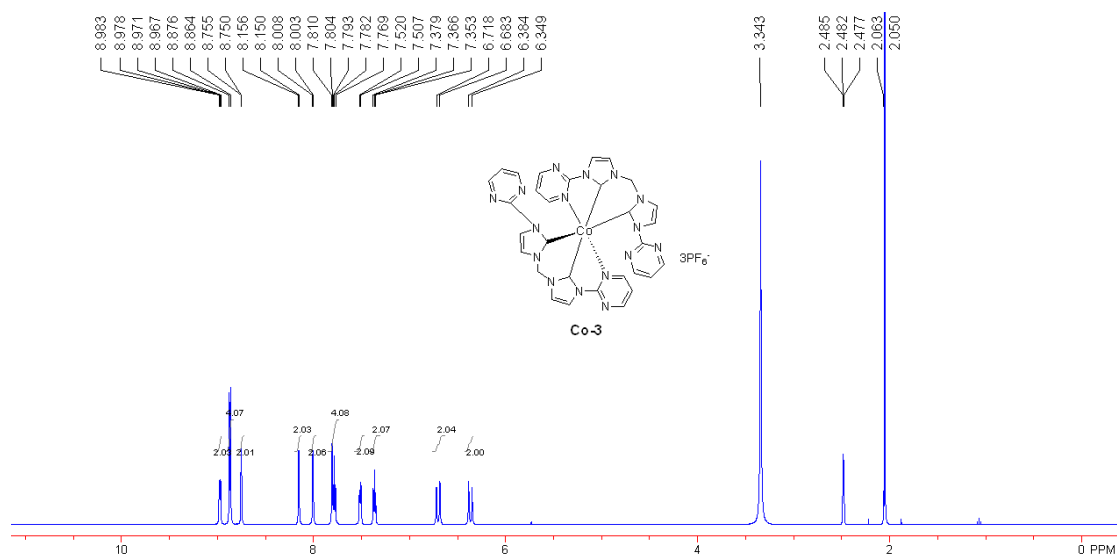
V. ^1H NMR Spectrum of **Co-2**.



VI. ^{13}C NMR Spectrum of **Co-2**.



VII. ^1H NMR Spectrum of **Co-3**.



VIII. ^{13}C NMR Spectrum of **Co-3**.

