

Supporting Material.

Table S-1. Pseudo-First-Order Rate Constants for the Reaction of $[\text{Co}^{\text{II}}((\text{nox})_3(\text{BC}_6\text{H}_5)_2)]$ with $[\text{Cu}^{\text{II}}(\text{bite})]^{2+}$ in acetonitrile with 0.01 M Et_4NBF_4 at 25 °C.^a

$[[\text{Cu}^{\text{II}}(\text{bite})](\text{BF}_4)_2]_0$, mM	k_{obs} , s ⁻¹
0.100	3.94
0.200	7.10
0.300	11.0

^a $[\text{Co}^{\text{II}}((\text{nox})_3(\text{BC}_6\text{H}_5)_2)]_0 = 1.00 \times 10^{-2}$ mM.Table S-2. Pseudo-First-Order Rate Constants for the Reaction of $[\text{Co}^{\text{II}}((\text{dmg})_3(\text{BC}_4\text{H}_9)_2)]$ with $[\text{Cu}^{\text{II}}(\text{bite})]^{2+}$ in acetonitrile with 0.01 M Et_4NBF_4 at 25 °C.^a

$[[\text{Cu}^{\text{II}}(\text{bite})](\text{BF}_4)_2]_0$, mM	k_{obs} , s ⁻¹
0.100	8.0
0.200	14.0
0.300	22.0

^a $[\text{Co}^{\text{II}}((\text{dmg})_3(\text{BC}_4\text{H}_9)_2)]_0 = 1.00 \times 10^{-2}$ mM.Table S-3. Pseudo-First-Order Rate Constants for the Reaction of $[\text{Co}^{\text{II}}((\text{nox})_3(\text{BC}_4\text{H}_9)_2)]$ with $[\text{Cu}^{\text{II}}(\text{bite})]^{2+}$ in acetonitrile with 0.01 M Et_4NBF_4 at 25 °C.^a

$[[\text{Cu}^{\text{II}}(\text{bite})](\text{BF}_4)_2]_0$, mM	k_{obs} , s ⁻¹
0.100	8.0
0.200	15.0
0.300	21.4
0.400	31.0

^a $[\text{Co}^{\text{II}}((\text{nox})_3(\text{BC}_4\text{H}_9)_2)]_0 = 1.00 \times 10^{-2}$ mM.

Table S-4. Pseudo-First-Order Rate Constants for the Reaction of $[\text{Co}^{\text{II}}((\text{nox})_3(\text{BC}_4\text{H}_9)_2)]$ with $[\text{Cu}^{\text{II}}(\text{bite})]^{2+}$ in acetonitrile with 0.1 M Et_4NBF_4 at 25 °C.^a

$[[\text{Cu}^{\text{II}}(\text{bite})](\text{BF}_4)_2]_0$, mM	k_{obs} , s ⁻¹
0.250	10.1
0.375	15.2
0.500	19.0
0.625	25.0

^a $[\text{Co}^{\text{II}}((\text{nox})_3(\text{BC}_4\text{H}_9)_2)]_0 = 2.50 \times 10^{-2}$ mM

Table S-5. Pseudo-First-Order Rate Constants for the Reversible Reaction of $[\text{Ru}^{\text{II}}(\text{hfac})_3]^-$ with $[\text{Cu}^{\text{II}}(\text{bite})]^{2+}$ in acetonitrile with 0.01 M Et_4NBF_4 at 25 °C.^a

$[[\text{Cu}^{\text{II}}(\text{bite})](\text{BF}_4)_2]_0$ mM	k_{obs} , s ⁻¹
0.025	0.030
0.050	0.047
0.075	0.068
0.100	0.095
0.125	0.114
0.150	0.132
0.175	0.152

^a $[\text{K}[\text{Ru}^{\text{II}}(\text{hfac})_3]]_0 = 2.50 \times 10^{-3}$ mM, $[[\text{Cu}^{\text{I}}(\text{bite})](\text{BF}_4)]_0 = 2.50 \times 10^{-2}$ mM.

Table S-6. Pseudo-First-Order Rate Constants for the Reaction of $[\text{Fe}^{\text{III}}(\text{bpy})_3]^{3+}$ with $[\text{Cu}^{\text{I}}(\text{bite})]^+$ in acetonitrile with 0.1 M Et_4NBF_4 at 25 °C.^a

$[[\text{Fe}^{\text{III}}(\text{bpy})_3](\text{BF}_4)_3]_0$, mM	k_{obs} , s ⁻¹
0.250	6.54
0.375	9.04
0.500	13.5
0.625	15.0
0.750	18.2

^a $[[\text{Cu}^{\text{I}}(\text{bite})](\text{BF}_4)]_0 = 2.50 \times 10^{-2}$ mM.

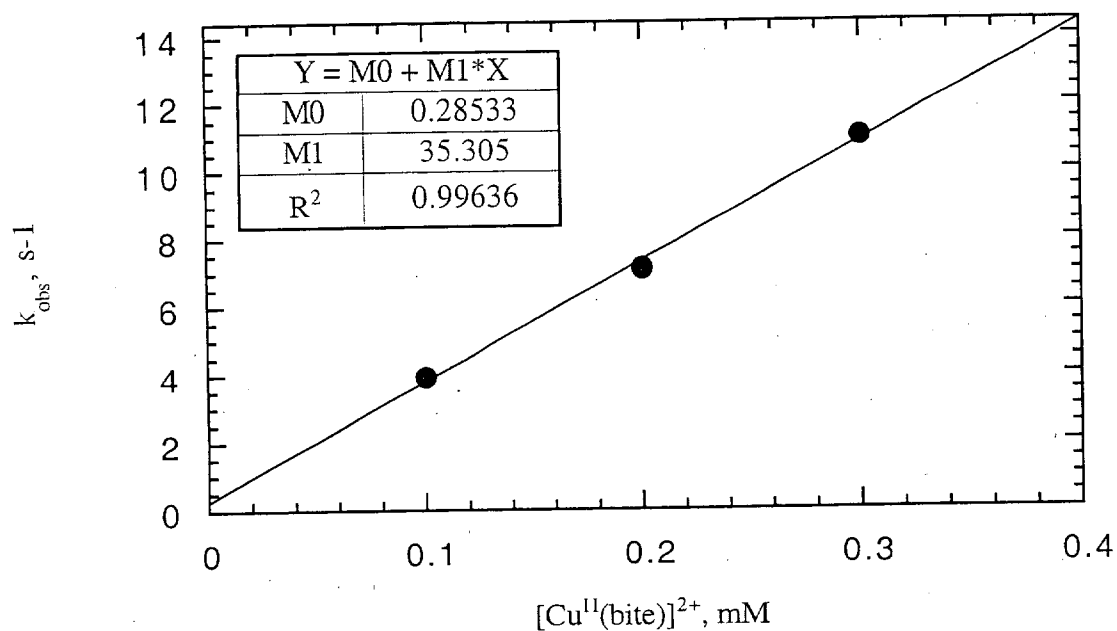


Figure S-1. Pseudo-first-order rate constants for the reaction of $[\text{Co}^{\text{II}}((\text{nox})_3(\text{BC}_6\text{H}_5)_2)]$ with excess $[\text{Cu}^{\text{II}}(\text{bite})]^{2+}$ in acetonitrile with 0.01 M Et_4NBF_4 at 25 °C. $[\text{Co}^{\text{II}}]_0 = 0.010 \text{ mM}$.

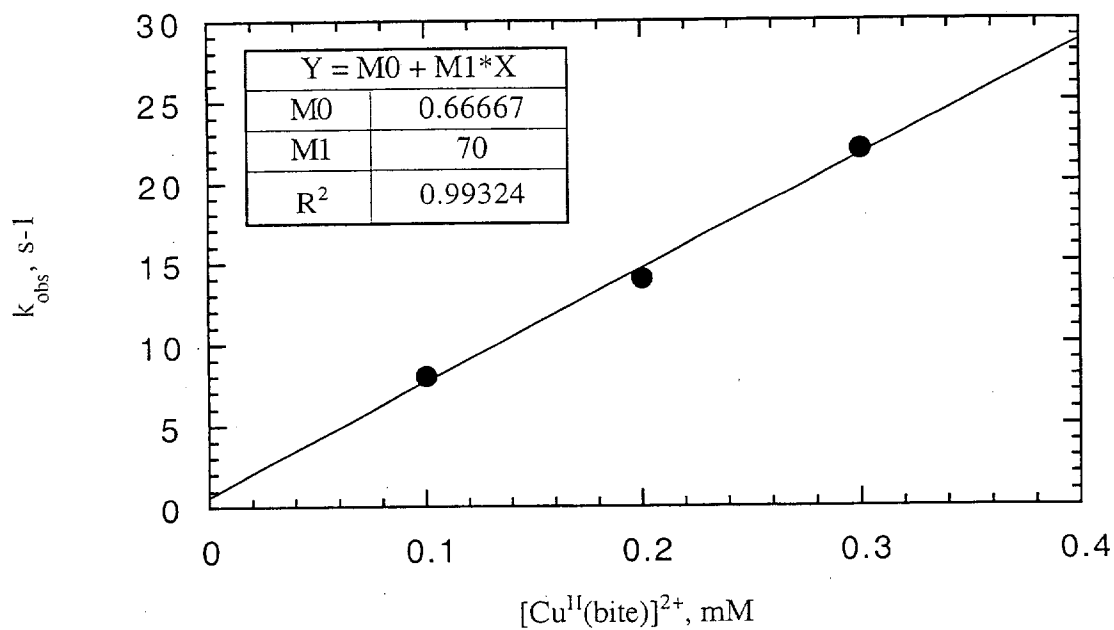


Figure S-2. Pseudo-first-order rate constants for the reaction of $[\text{Co}^{\text{II}}((\text{dmg})_3(\text{BC}_4\text{H}_9)_2)]$ with excess $[\text{Cu}^{\text{II}}(\text{bite})]^{2+}$ in acetonitrile with 0.01 M Et_4NBF_4 at 25 °C. $[\text{Co}^{\text{II}}]_0 = 0.010 \text{ mM}$.

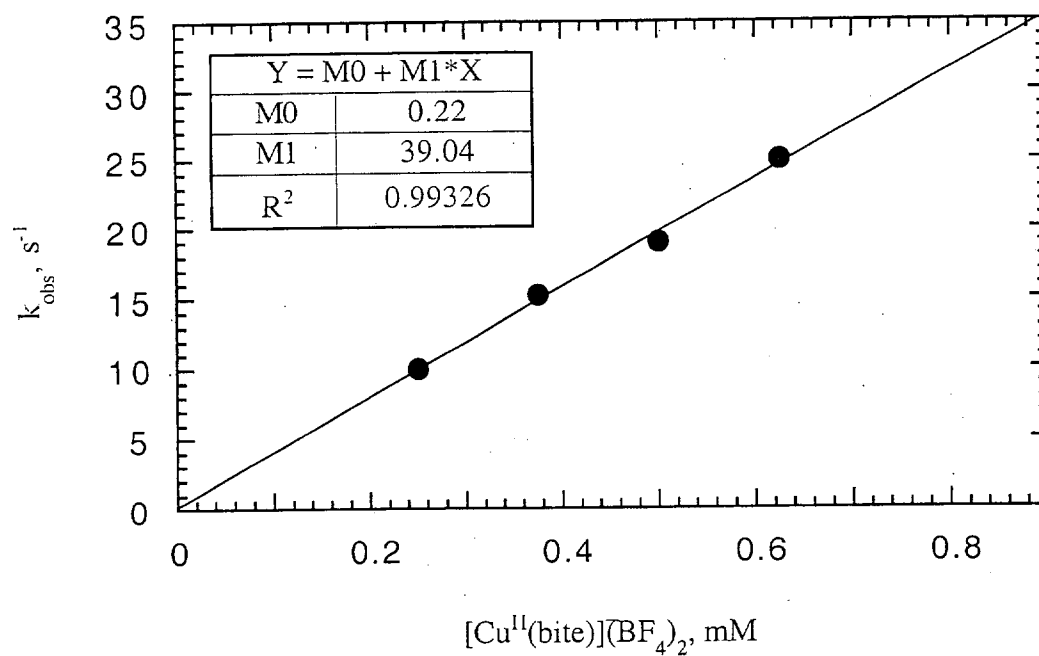


Figure S-3. Pseudo-first-order rate constants for the reaction of $[\text{Co}^{\text{II}}((\text{nox})_3(\text{BC}_4\text{H}_9)_2)]$ with excess $[\text{Cu}^{\text{II}}(\text{bite})]^{2+}$ in acetonitrile with 0.1 M Et_4NBF_4 at 25 °C. $[\text{Co}^{\text{II}}]_0 = 0.025 \text{ mM}$.

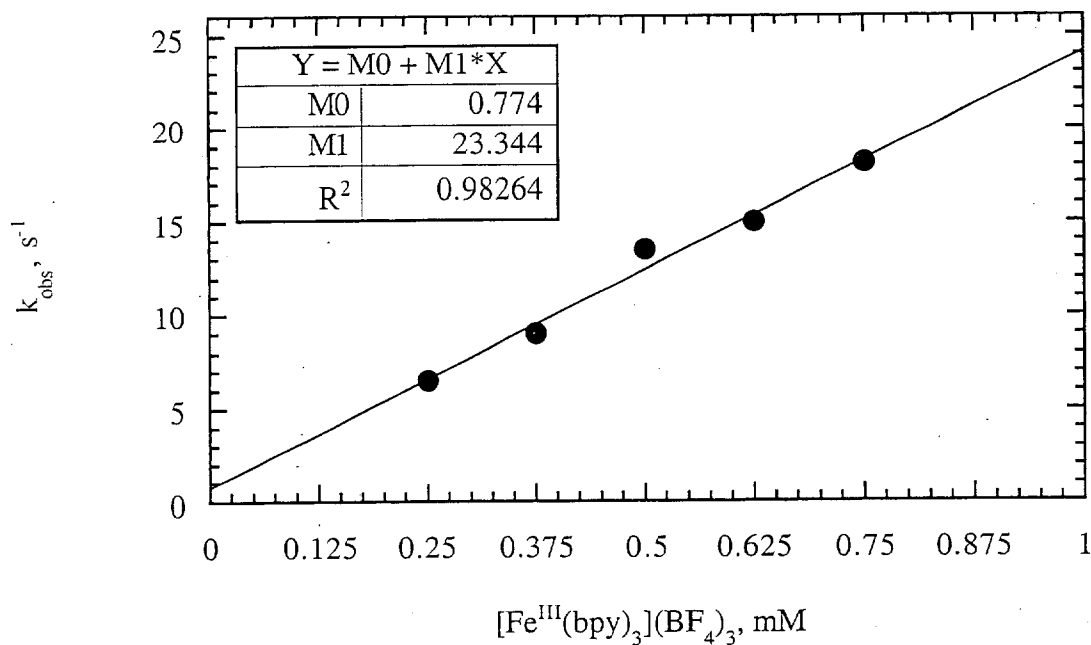


Figure S-4. Pseudo-first-order rate constants for the reaction of excess $[\text{Fe}^{\text{III}}(\text{bpy})_3]^{3+}$ with $[\text{Cu}^{\text{I}}(\text{bite})]^+$ in acetonitrile with 0.1 M Et_4NBF_4 at 25 °C. $[\text{Cu}^{\text{I}}(\text{bite})^+]_0 = 2.50 \times 10^{-2}$ mM.