

Supporting Information

**Controlled release of carbon monoxide from a pseudo electron-deficient organometallic complex.**

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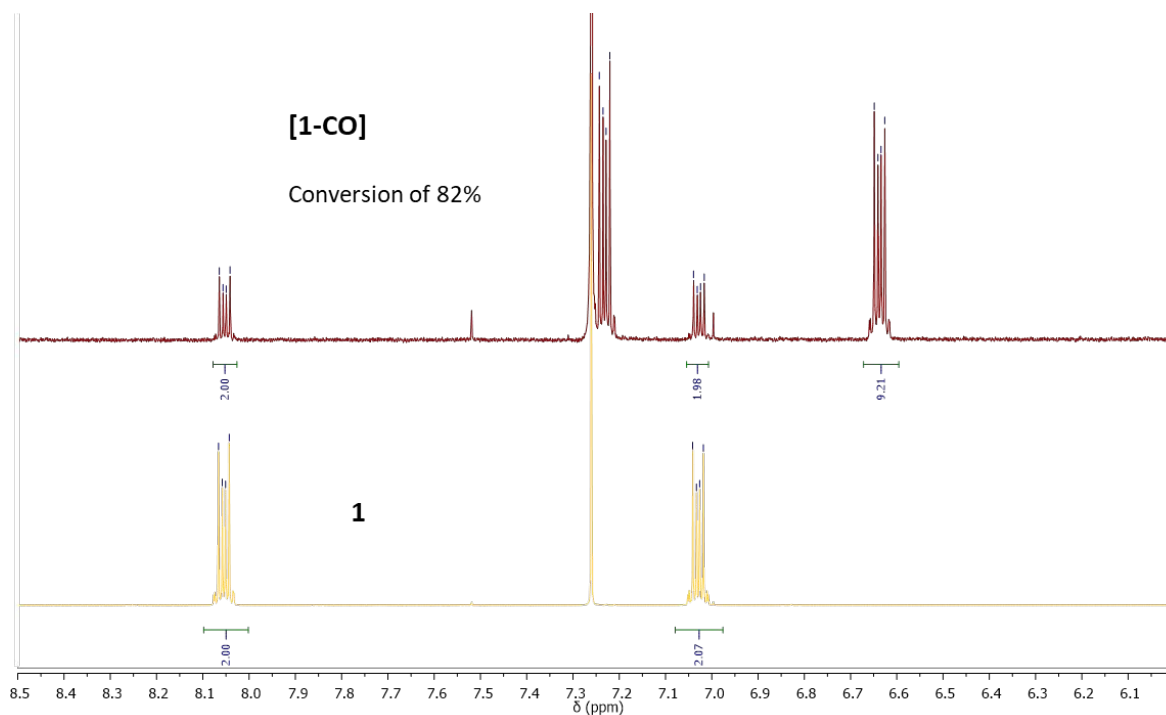


Figure S1.  $^1\text{H}$  NMR spectra (1 mM,  $\text{CDCl}_3$ , 298K) of **1** and **[1-CO]**. **[1-CO]** was prepared by bubbling  $\text{CO}_{(\text{g})}$  into the solution of **1**.

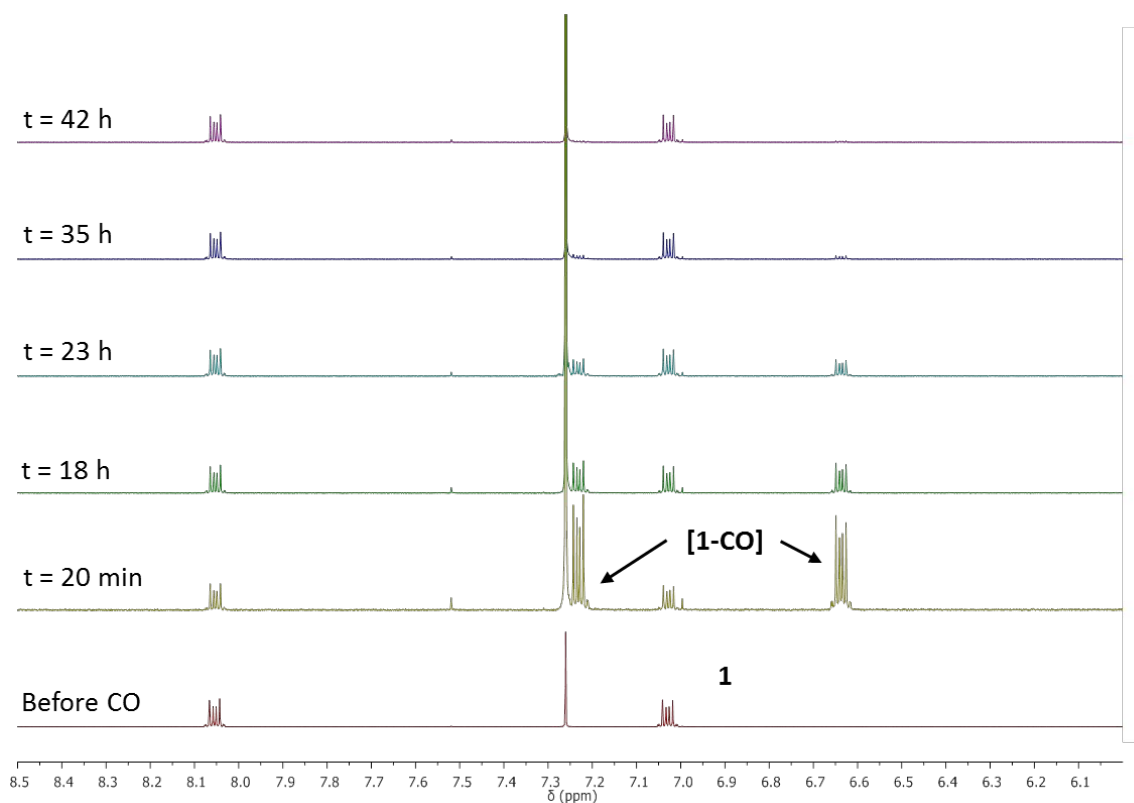


Figure S2. Time-dependent  $^1\text{H}$  NMR spectra (1 mM,  $\text{CDCl}_3$ , 298K) of **[1-CO]** showing the  $\text{CO}$  decooordination and the return to the parent complex **1**. A hole in the NMR cap was pierced to allow for a better air exchange.

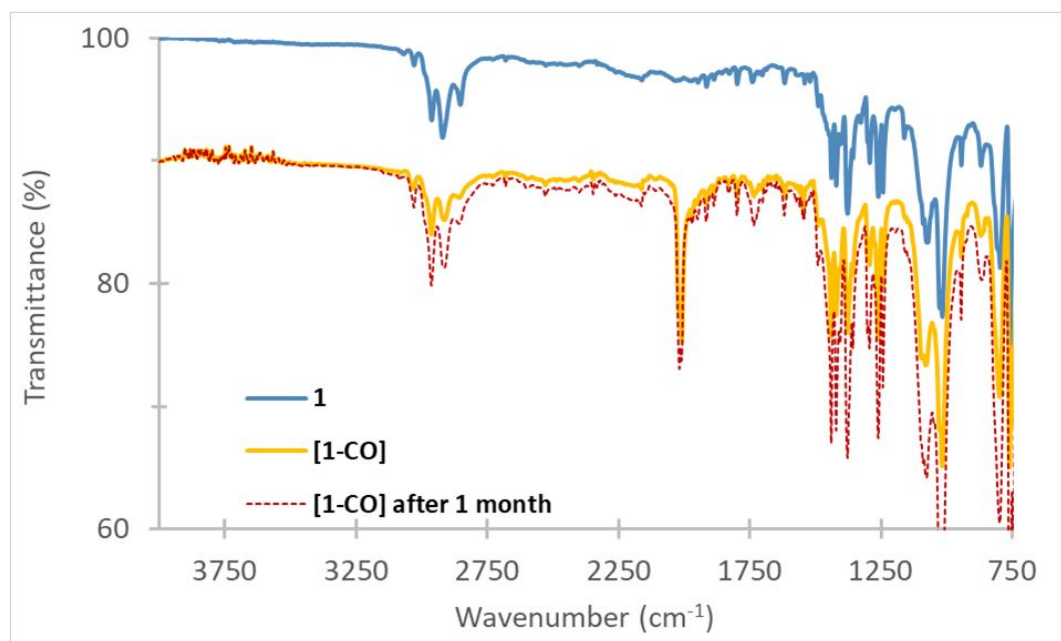


Figure S3. Infrared spectra (as powders) of complexes **1**, **[1-CO]** stored as a powder for 1 hour and stored as a powder for four weeks, showing the stability of the CO-adduct in the solid-state.

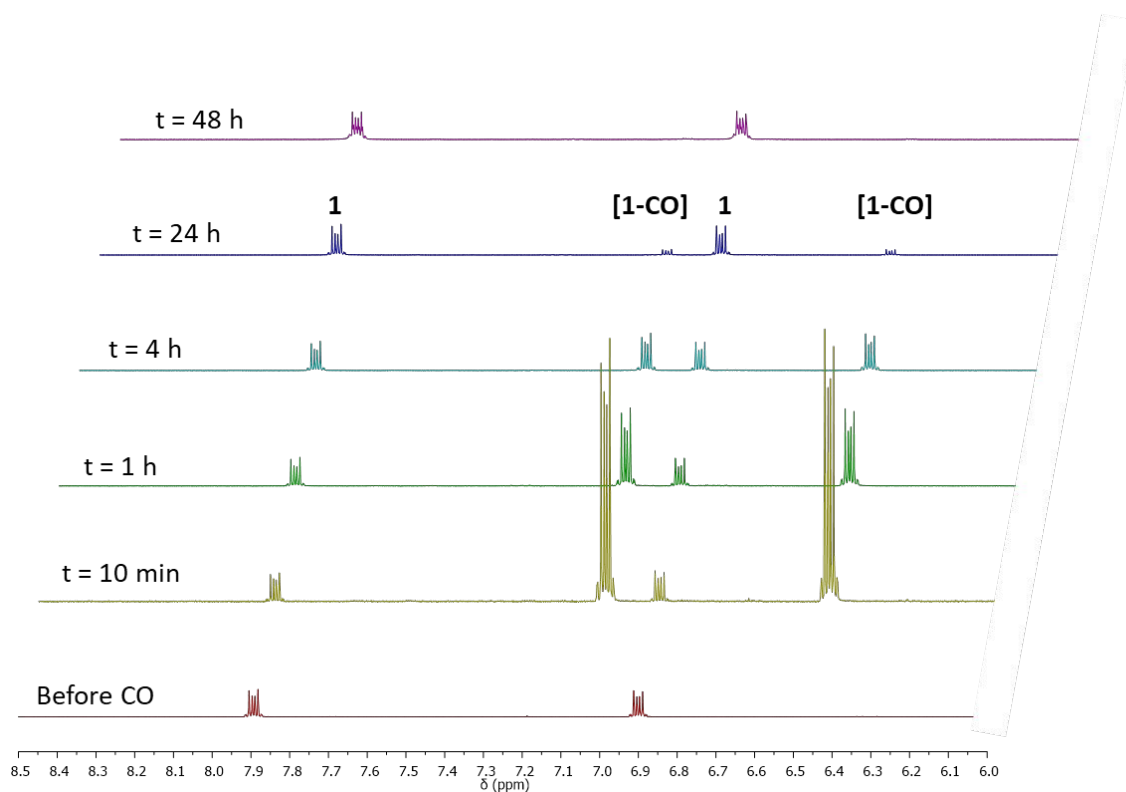


Figure S4. Time-dependent <sup>1</sup>H NMR spectra (1 mM, deuterated THF, 298K) of **[1-CO]** showing the CO decooordination and the return to the parent complex **1**.

Table S1: molar % of [1-CO] in solution when following the release of CO from [1-CO] in CDCl<sub>3</sub>.

Time	Integral for signal		Ratio 1:[1-CO]	Mol% of [1-CO] in solution
	$\delta = 7.04$ ppm <b>1</b>	$\delta = 6.65$ ppm [1-CO]		
Before CO	2.00	0	1:0	0
20 min	2.00	9.21	1:4.6	82.2
18 h	2.00	2.17	1:1.1	52.0
23 h	2.00	1.33	1:0.7	39.9
35 h	2.00	0.24	1:0.1	10.7
42 h	2.00	0.10	1:0.05	0.05

Table S2: molar % of [1-CO] in solution when following the release of CO from [1-CO] in deuterated THF.

Time	Integral for signal		Ratio 1:[1-CO]	Mol% of [1-CO] in solution
	$\delta = 7.04$ ppm <b>1</b>	$\delta = 6.65$ ppm [1-CO]		
Before CO	2.00	0	1:0	0
10 min	2.00	16.78	1:8.4	89.4
1 h	2.00	5.55	1:2.8	73.5
4 h	2.00	2.55	1:1.3	56.0
24 h	2.00	0.43	1:0.2	17.7
48 h	2.00	0.08	1:0.04	0.04