Electronic Supplementary Material (ESI) for Dalton Transactions.

Remote-controlled Delivery of CO *via* Photoactive CO-Releasing Materials on a Fiber Optical Device

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1. Synthesis Data
2. Supplementary Figures
3. Supplementary Tables

1. Synthesis data

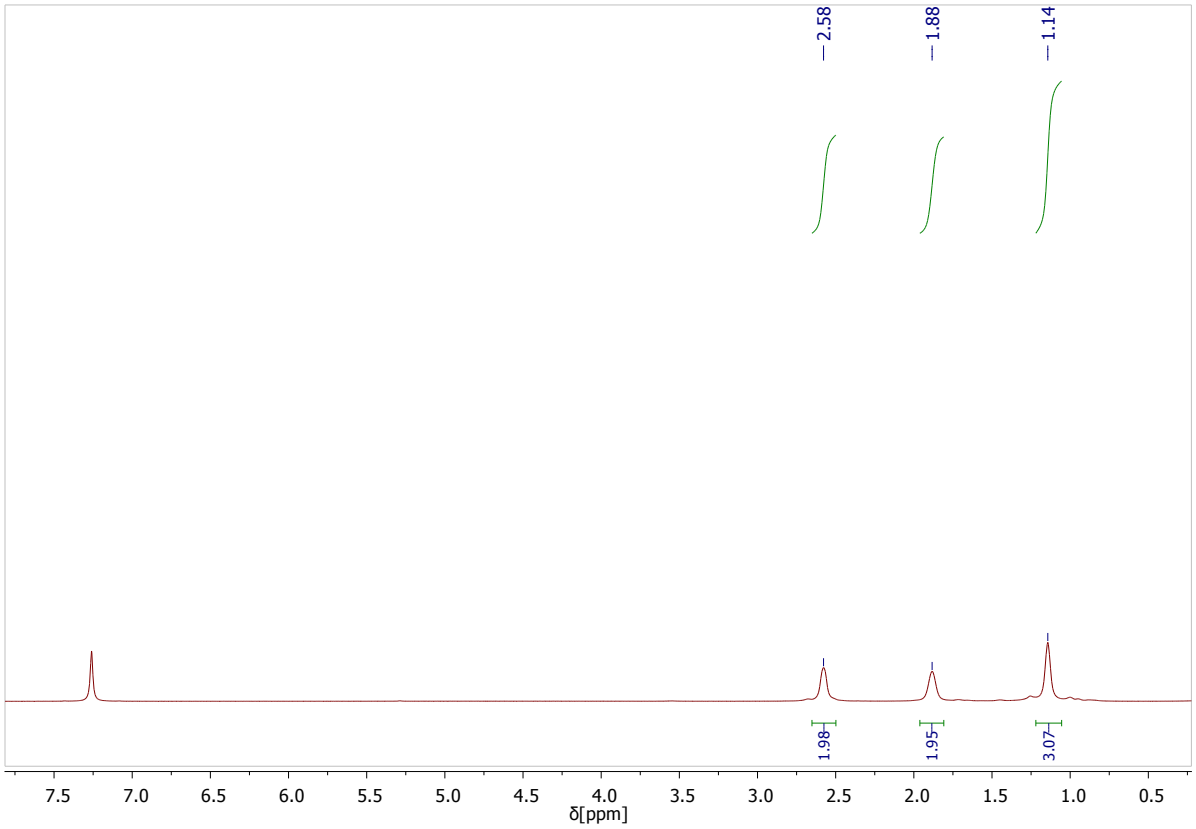

Figure S1: ^{1}H-NMR spectrum of $[Mn(CO)_3(\mu_3\text{-S-}n\text{Pr})]_4$ (**1**) in $CDCl_3$.

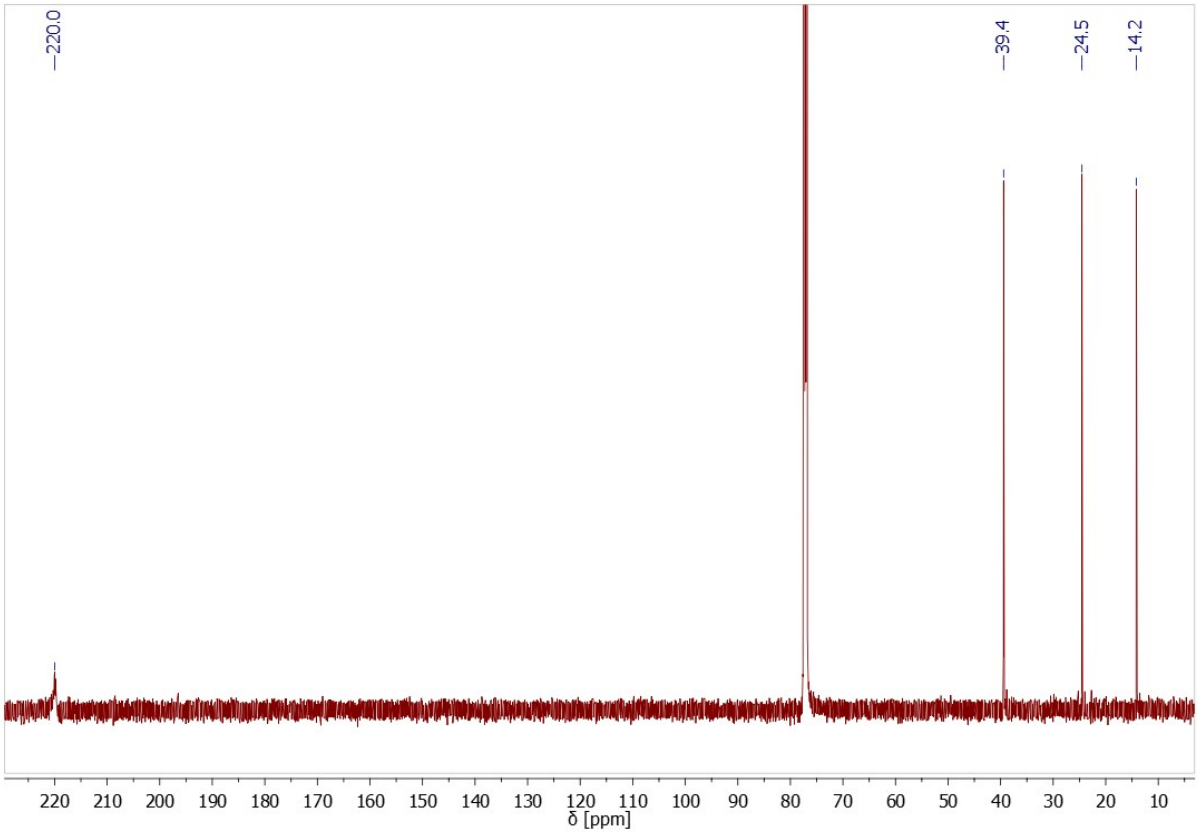

Figure S2: $^{13}C\{^{1}H\}$-NMR spectrum of $[Mn(CO)_3(\mu_3\text{-S-}n\text{Pr})]_4$ (**1**) in $CDCl_3$.

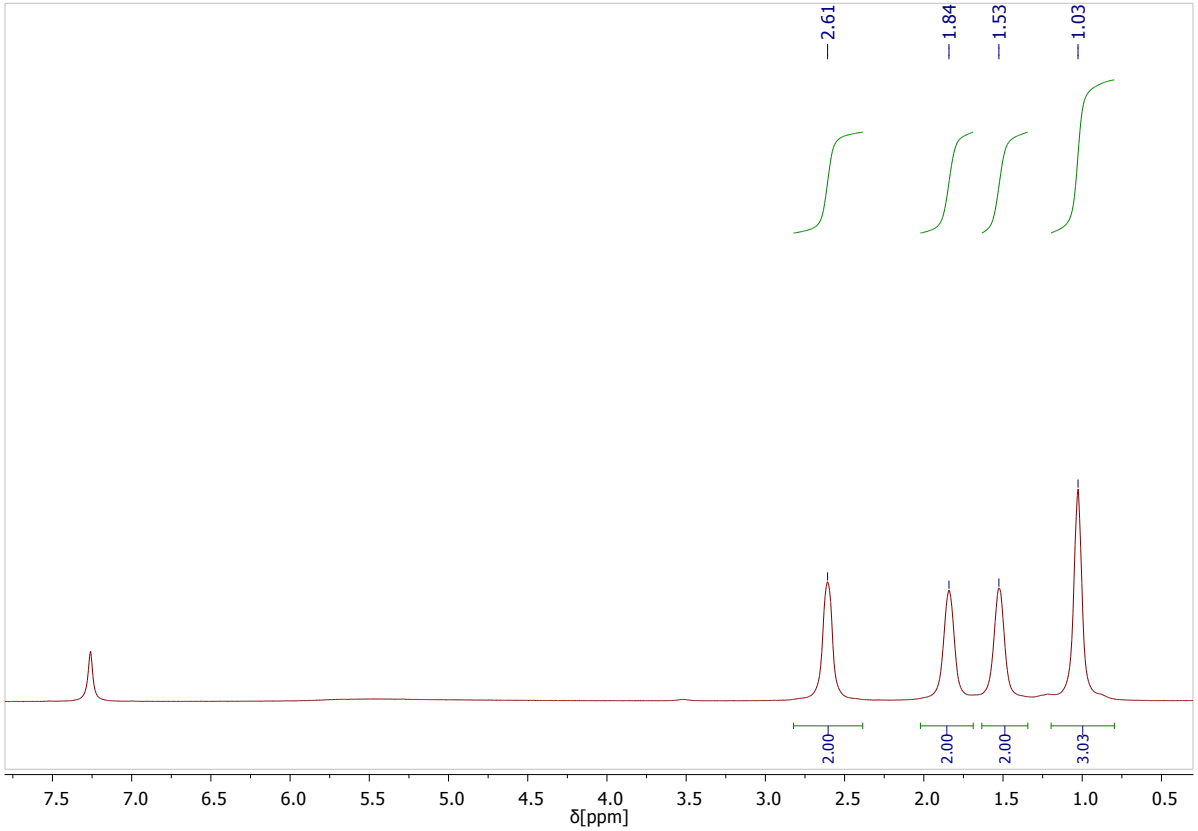

Figure S3: ^{1}H-NMR spectrum of $[Mn(CO)_3(\mu_3\text{-S-}n\text{Bu})]_4$ (**2**) in $CDCl_3$.

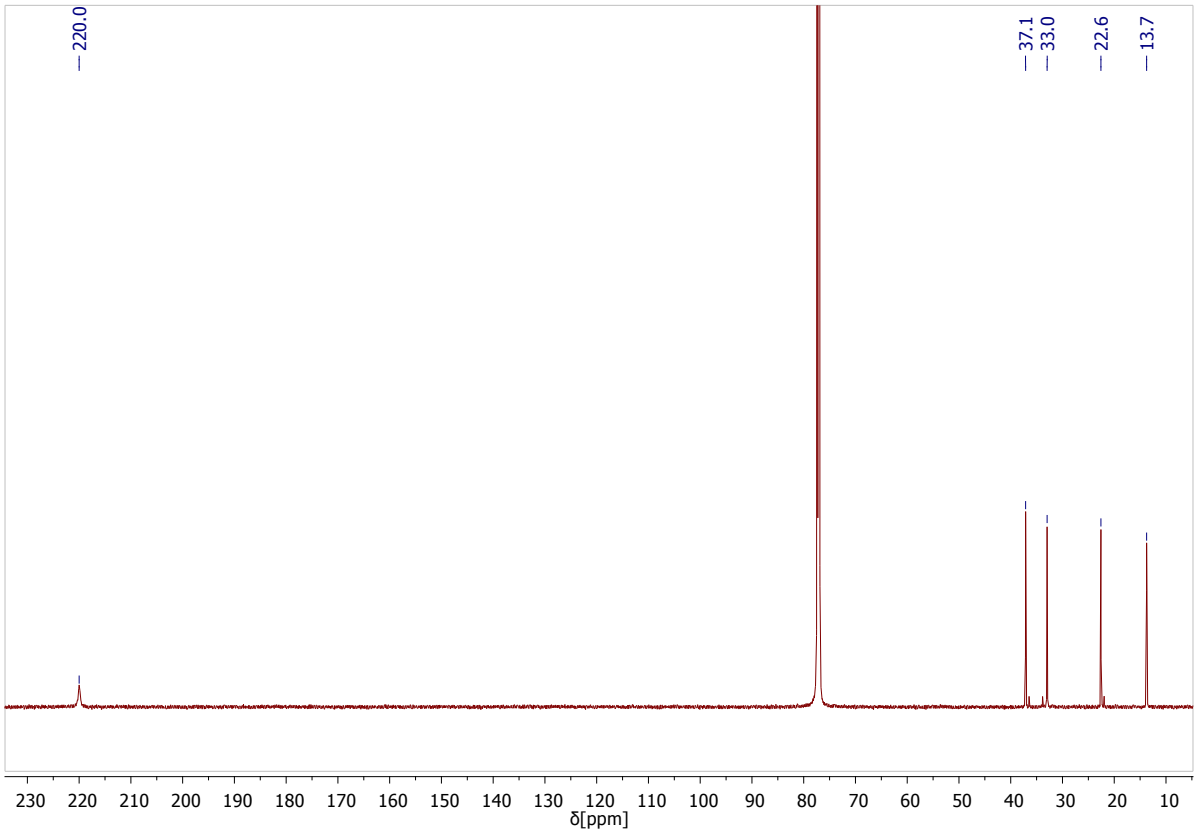

Figure S4: $^{13}C\{^{1}H\}$-NMR spectrum of $[Mn(CO)_3(\mu_3\text{-S-}n\text{Bu})]_4$ (**2**) in $CDCl_3$.

2. Supplementary Figures

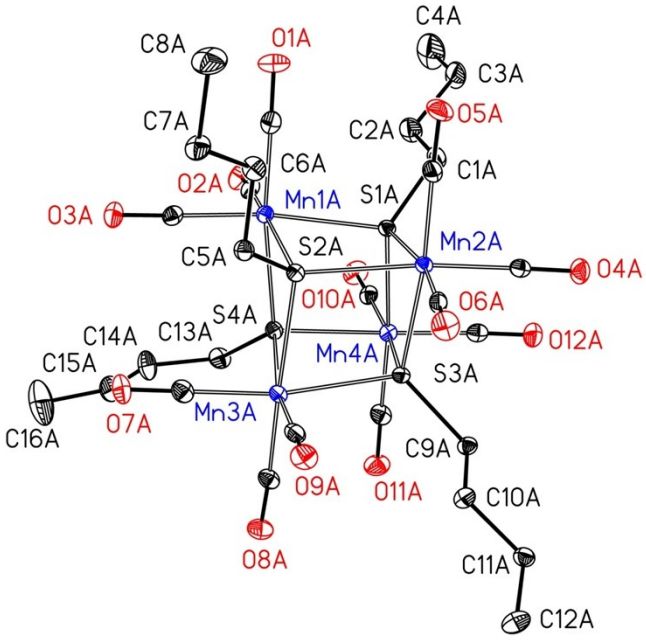

Figure S5: Molecular structure and numbering scheme of $[(OC)_3Mn(\mu_3\text{-}S\text{-}n\text{Bu})]_4$ (**2**). The ellipsoids represent a probability of 30 %, H atoms are neglected for the sake of clarity. The asymmetric unit contains several very similar molecules, only molecule A is depicted. Selected bond lengths (pm): Mn1A-S1A 238.1(1), Mn1A-S2A 237.5(1), Mn1A-S4A 237.0(1), Mn2A-S1A 237.4(1), Mn2A-S2A 236.0(1), Mn2A-S3A 237.8(1), Mn3A-S2A 236.5(1), Mn3A-S3A 238.9(1), Mn3A-S4A 237.4(1), Mn4A-S1A 236.1(1), Mn4A-S3A 236.4(1), Mn4A-S4A 236.1(1), Mn1A-C17A 182.3(5), Mn1A-C18A 181.3(5), Mn1A-C19A 180.3(5), Mn2A-C20A 181.9(5), Mn2A-C21A 180.7(5), Mn2A-C22A 179.9(5), Mn3A-C23A 180.6(5), Mn3A-C24A 182.4(5), Mn3A-C25A 181.0(5), Mn4A-C26A 180.9(5), Mn4A-C27A 180.5(5), Mn4A-C28A 181.5(5).

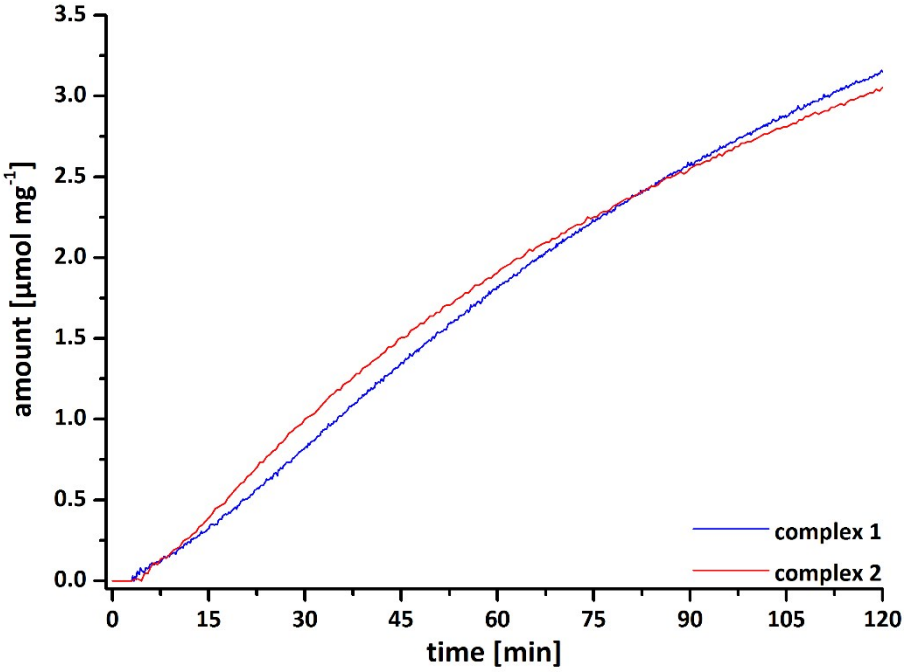

Figure S6: Comparison of the released CO concentrations over time at the observed wavelengths (LED 405 nm, 14 mW cm^{-2}) for **1** and **2**.

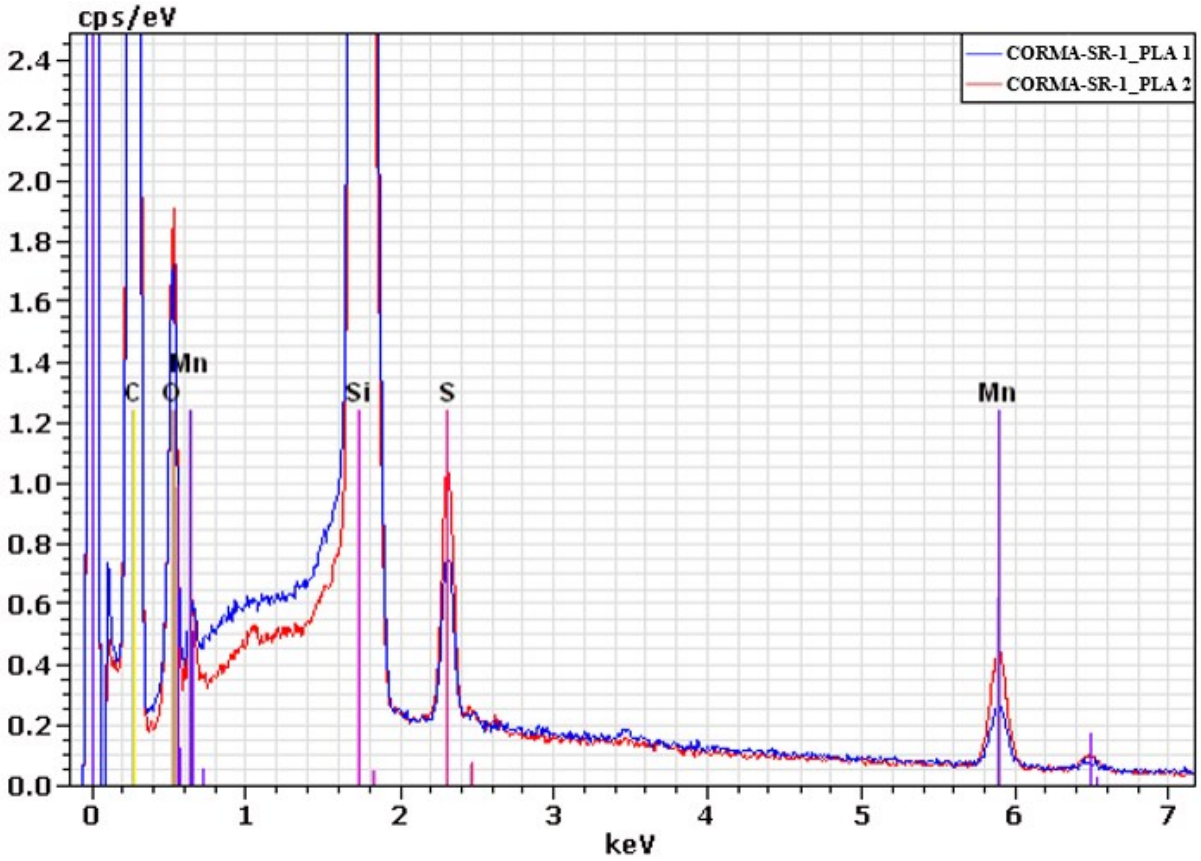

Figure S7: EDX spectra of two samples of **CORMA-SR-1_PLA**.

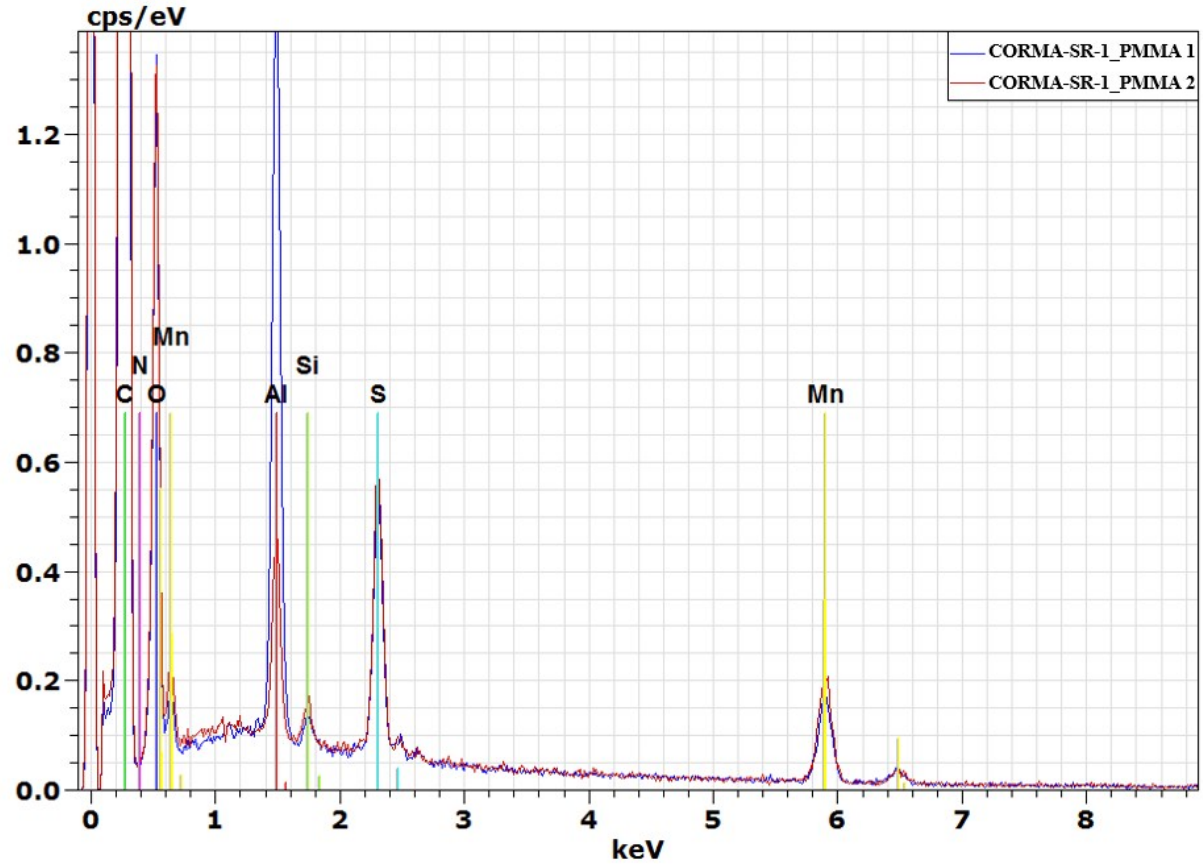

Figure S8: EDX spectra of two samples of **CORMA-SR-1_PMMA**.

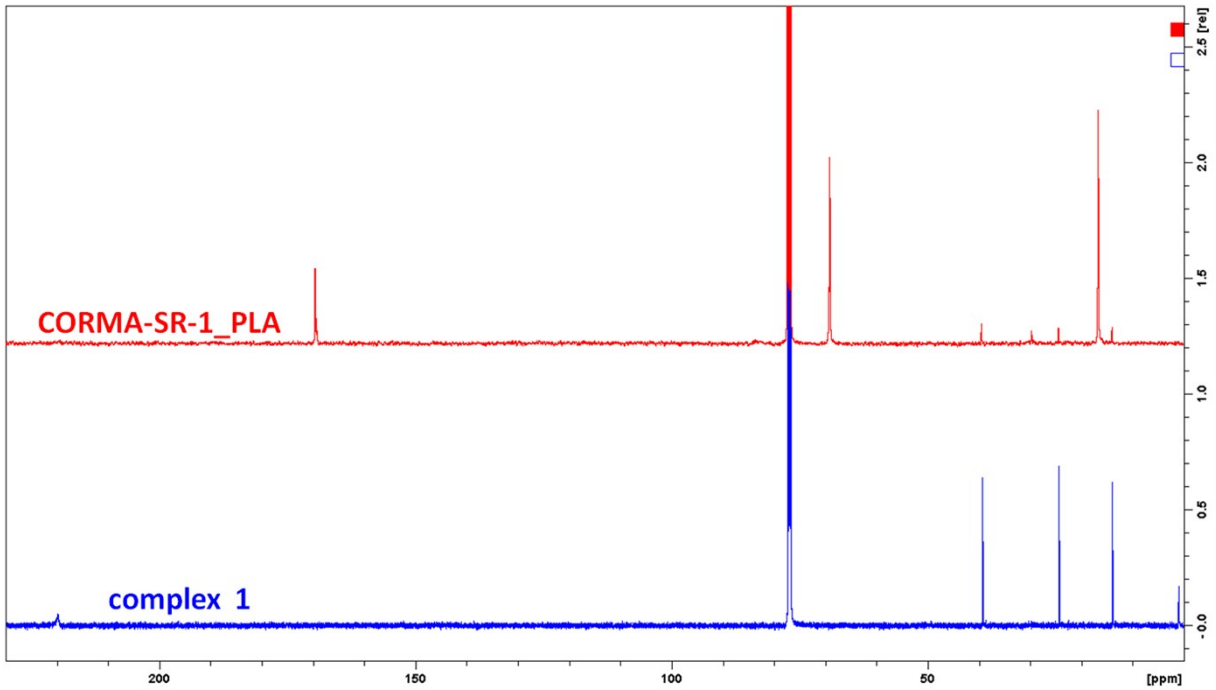

Figure S9: ^{13}C-NMR spectra of **CORMA-SR-1_PLA** and **1** which confirms the integrity of the incorporated CORM.

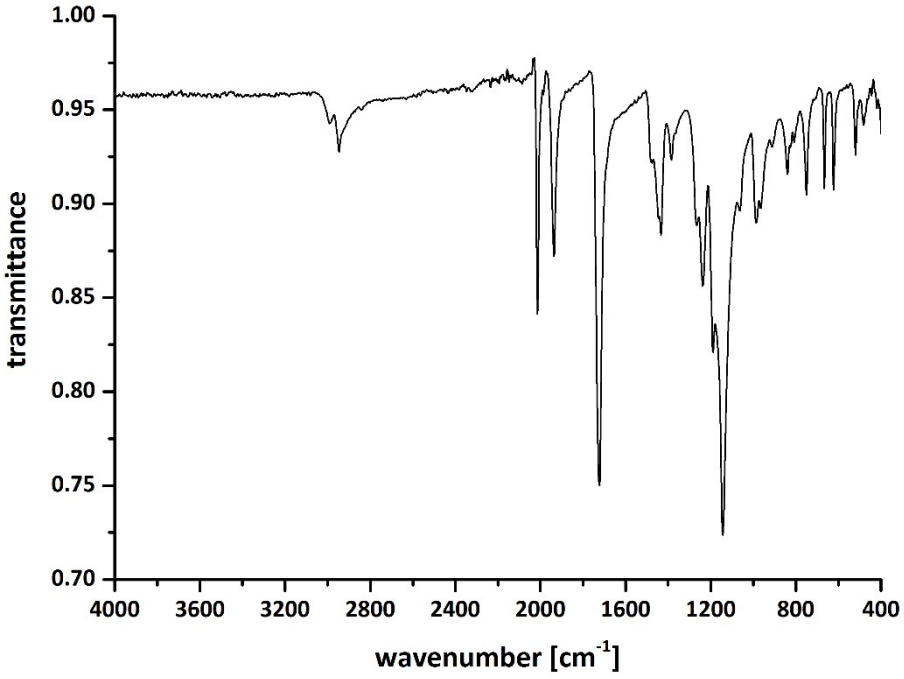

Figure S10: ATR-IR spectrum of **CORMA-SR-1_PMMA** before irradiation.

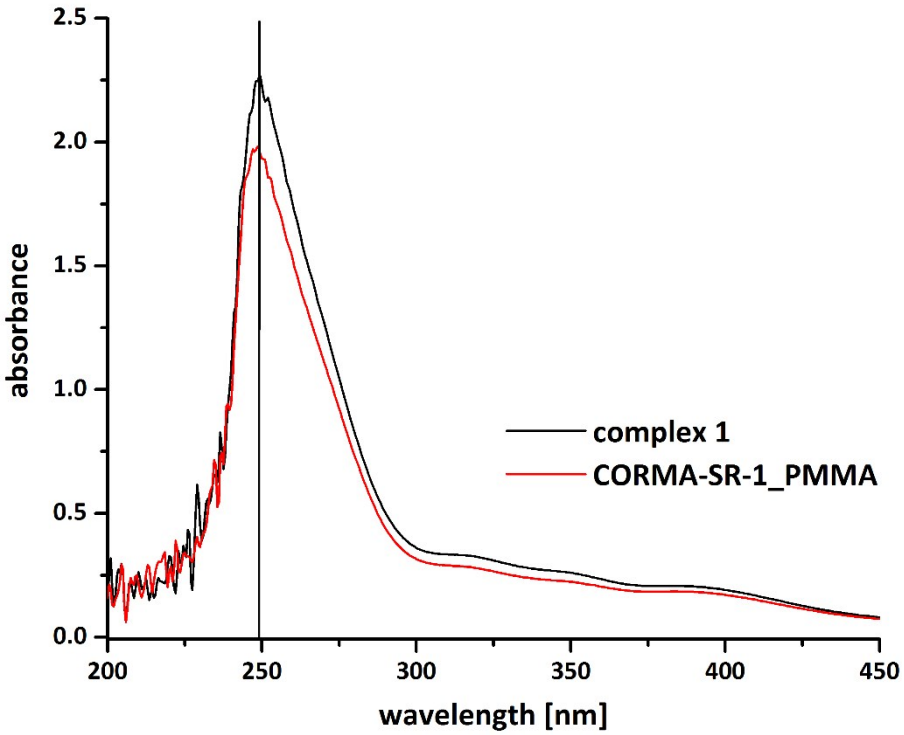

Figure S11: UV-VIS spectra of **1** (black line) and the **CORMA-SR-1_PMMA** (red line) in deaerated chloroform. Both samples contained equal incipient amount of CORM.

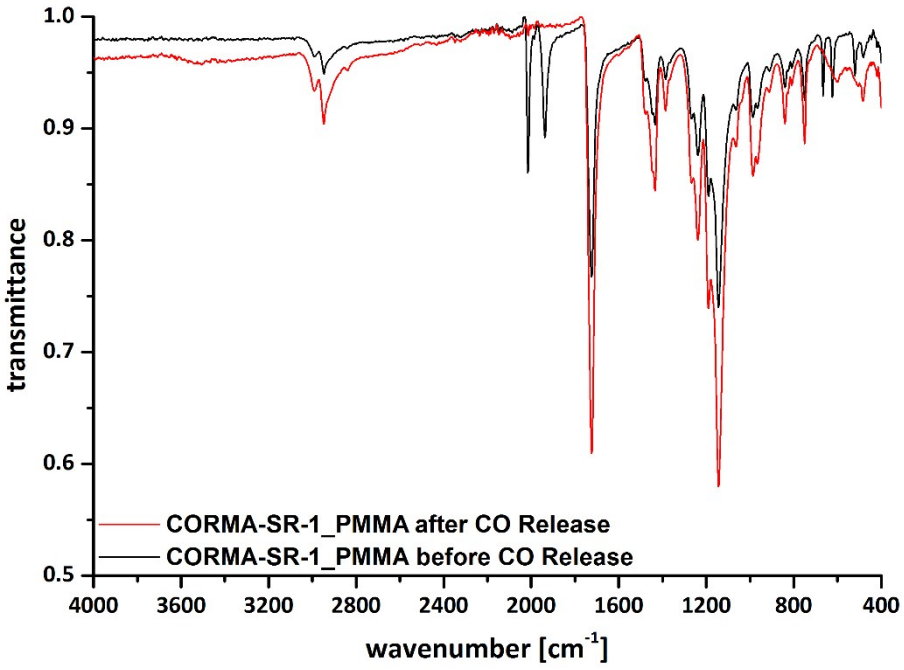

Figure S12: ATR-IR spectra of **CORMA-SR-1_PMMA** before (black line) and after irradiation (red line). The spectra show the loss of CO vibration bands (between 1900-2100 cm^{-1}) after irradiation at 405 nm.

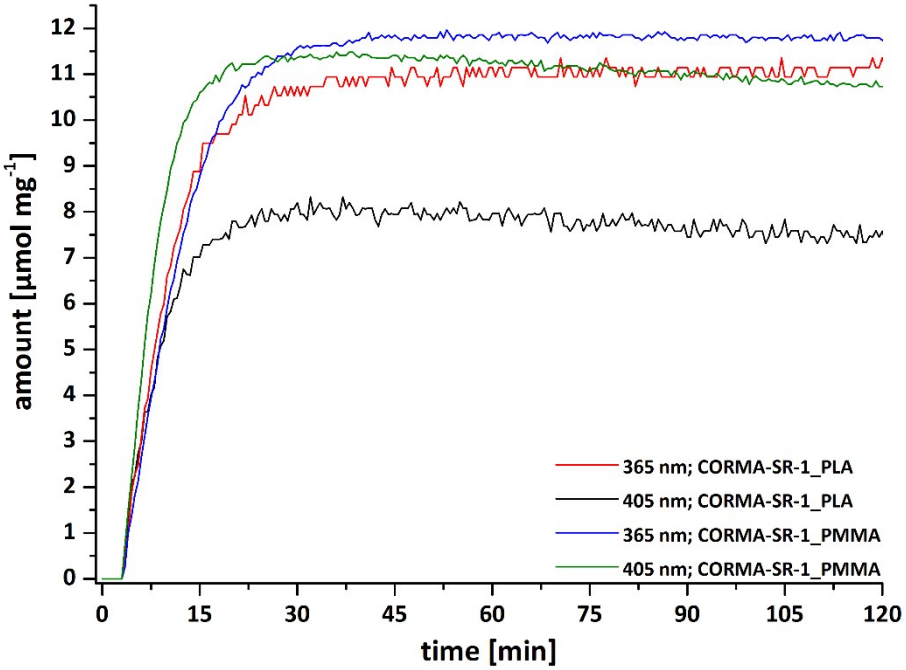

Figure S13: Comparison of the released CO concentrations from **CORMA-SR-1_PLA/PMMA** over time at the observed wavelengths (LED 365 nm and 405 nm, 14 mW cm^{-2}). Results obtained from duplicate measurements.

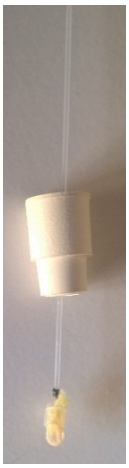

Figure S14: Setup for myoglobin assay with fiber optics coupled with the laser source.

3. Supplementary Tables

Table S1: ICP measurements for **CORMA-SR-1_PLA** (1A-C) and **CORMA-SR-1_PMMA** (2A-C).

exp.	sample weight [mg]	weight of Mn [µg]	measured Mn conc. [µg/L]	stand. dev. [µg/L]	recovery rate [%]	recovery rate - mean [%]
1A	1.5	38.5	37.5	0.01	97.43	
1B	1.5	38.5	35.7	0.01	92.82	99.50
1C	0.9	23.1	25.0	0.01	108.26	
2A	0.9	23.1	19.7	0.009	85.31	
2B	1.2	30.8	33.3	0.01	107.99	95.08
2C	1.6	41.1	37.8	0.01	91.95	