

SUPPLEMENTARY INFORMATION

Solid Phase Nitrosylation of Enantiomeric Cobalt(II) Complexes

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Accompanying film (SI film.mp4) shows the sorption of NO into $\text{Co}(\text{L}^{R,R})$ to give $\text{Co}(\text{NO})(\text{L}^{R,R})$.

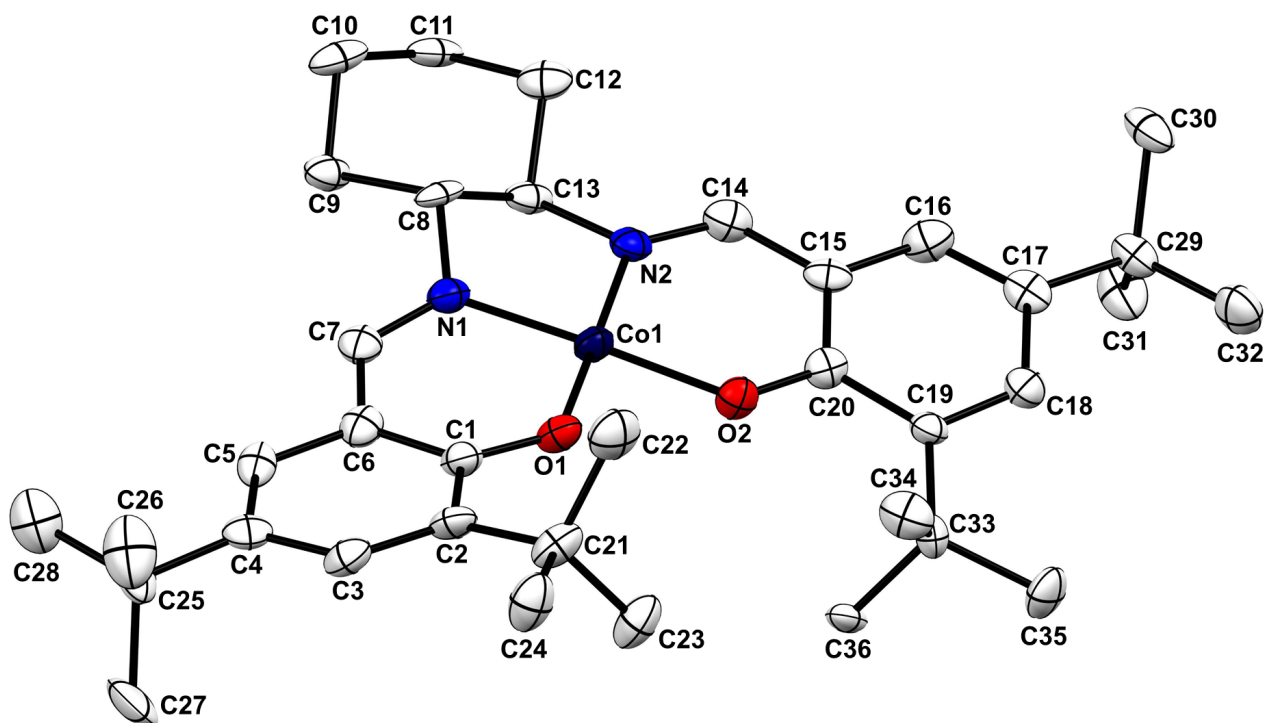


Figure S1. Single crystal X-ray structure of one of $\text{Co}(\text{L}^{\text{R,R}})$. Atomic displacement ellipsoids are drawn at 50 % probability and hydrogen atoms are omitted for clarity.

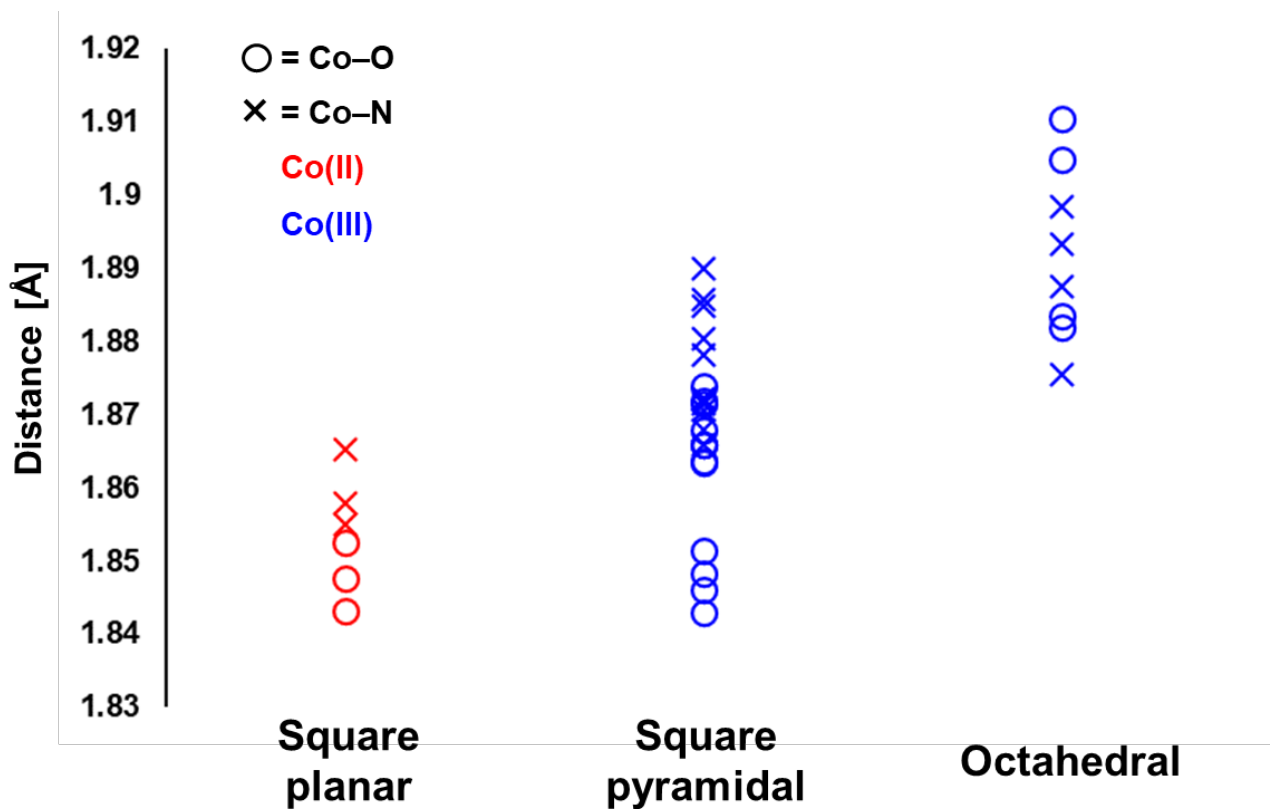


Figure S2. Diagram showing the relationship between Co–O and Co–N bond distances, coordination geometry and oxidation state for all the Co(L), Co(X)(L) and Co(X)₂(L) complexes currently available in the CCDC [1–14].

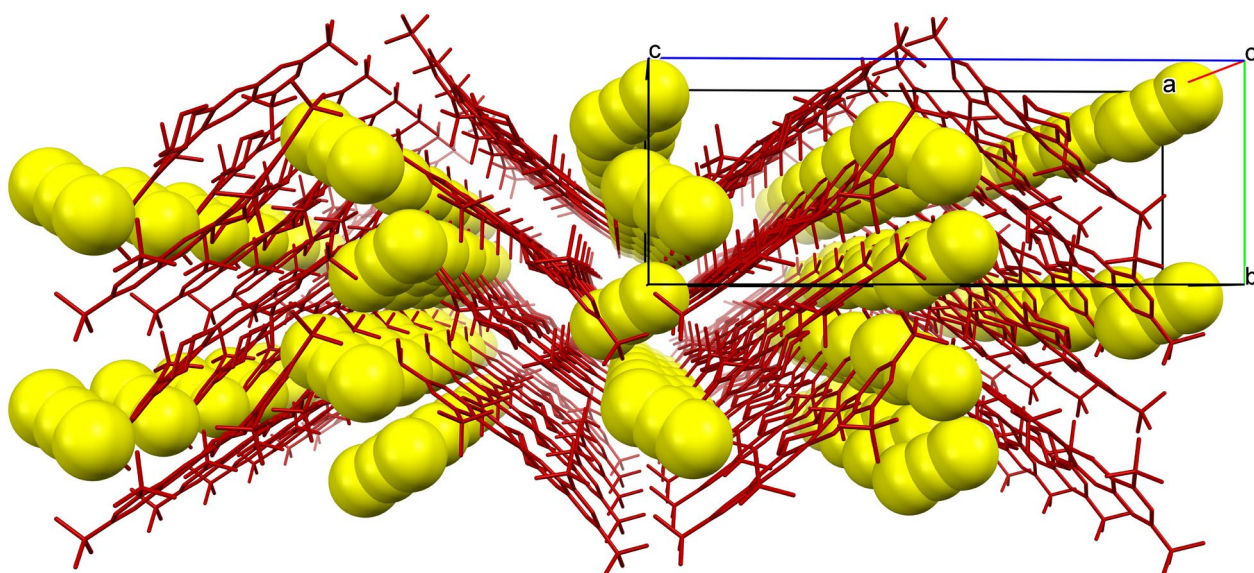


Figure S3. Packing diagram for Co(L^{R,R})•CS₂, with CS₂ in yellow. Hydrogen atoms are omitted for clarity.

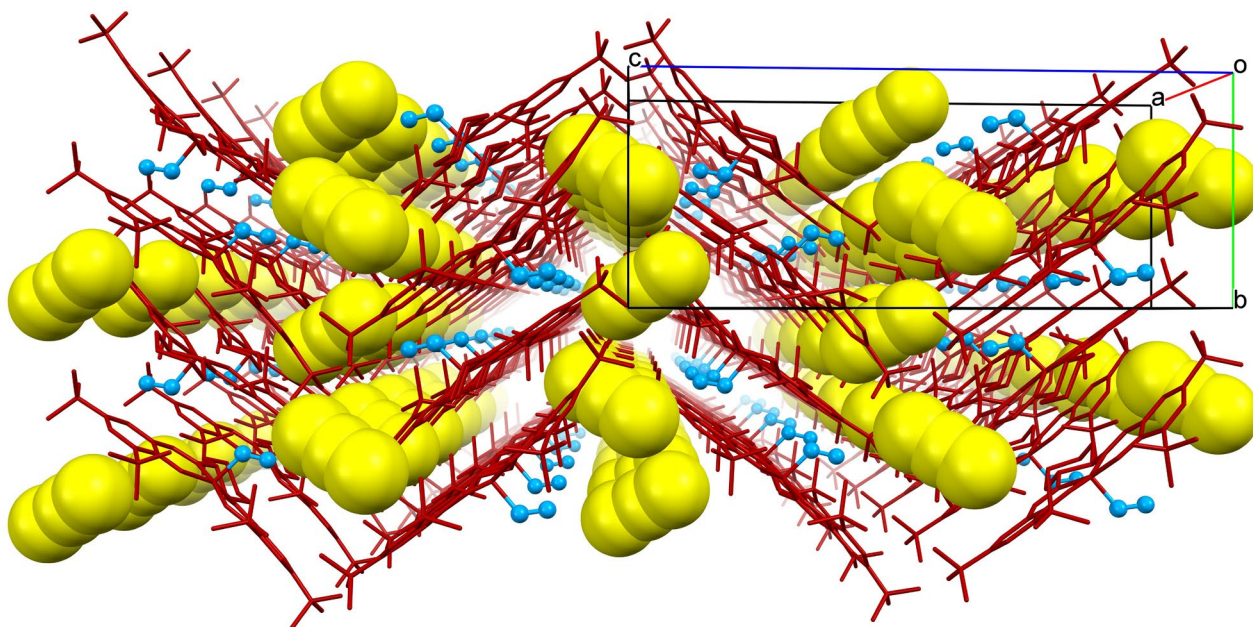


Figure S4. Packing diagram for $\text{Co}(\text{NO})(\text{L}^{R,R})\cdot\text{CS}_2$, with CS_2 in yellow and NO in light blue. Hydrogen atoms are omitted for clarity.

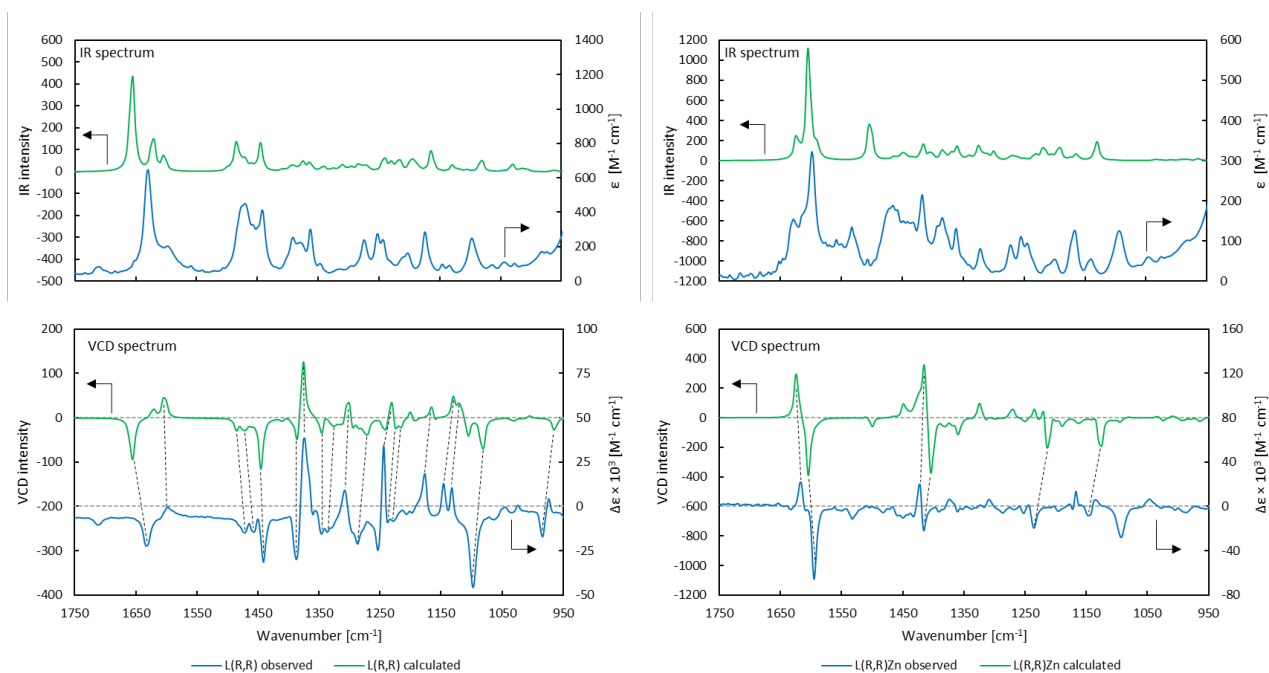


Figure S5. Comparison of observed (blue) and calculated (green) IR and VCD spectra of $\text{L}^{R,R}$ and $\text{Zn}(\text{L}^{R,R})$. The calculated spectra are shifted -45 cm^{-1} and -70 cm^{-1} respectively from the originally calculated wavenumbers.

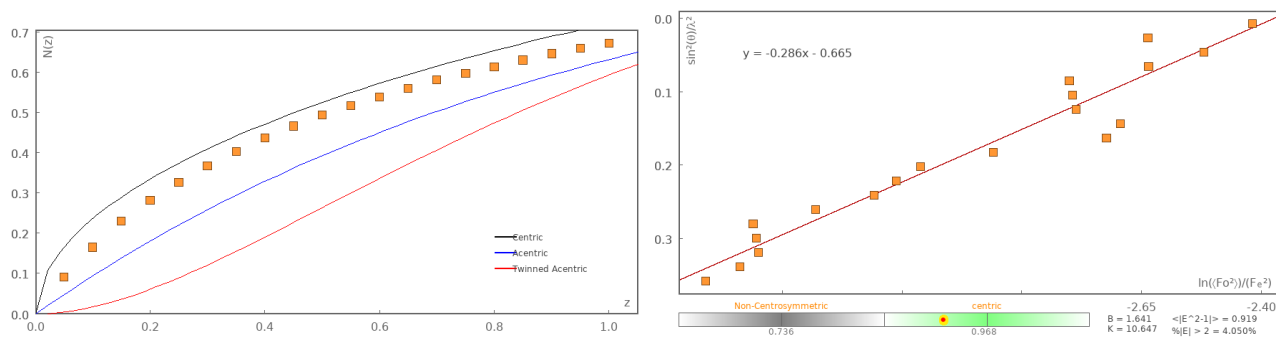


Figure S6. Cumulative intensity distribution plot and Wilson plot for $\text{Co}(\text{L}^{R,R})\cdot\text{CS}_2$

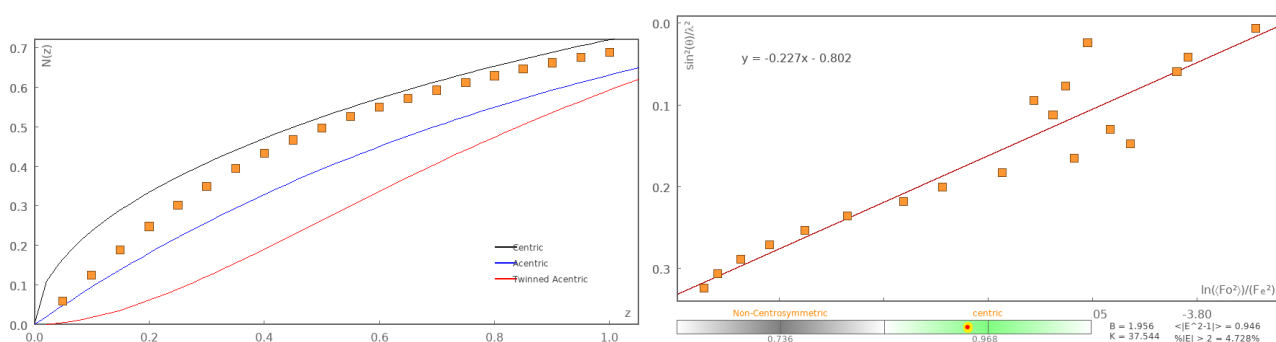


Figure S7. Cumulative intensity distribution plot and Wilson plot for $\text{Co}(\text{L}^{R,R})$

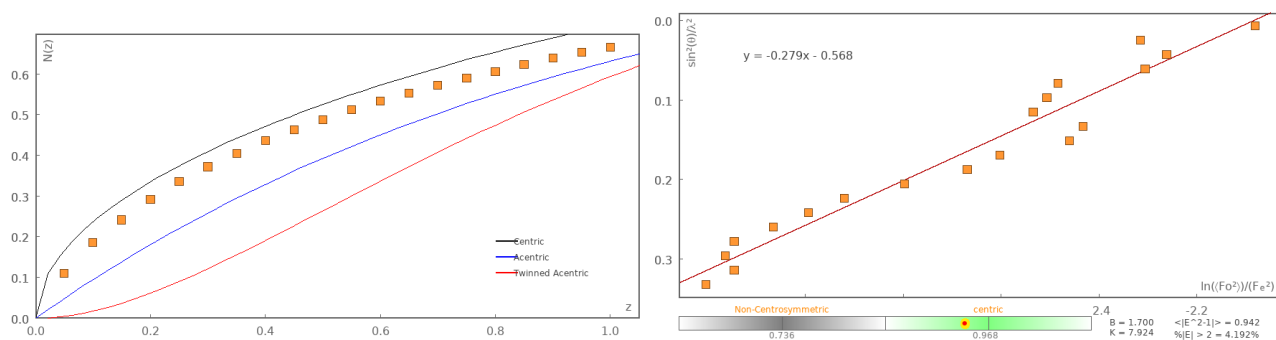


Figure S8. Cumulative intensity distribution plot and Wilson plot for $\text{Co}(\text{NO})(\text{L}^{R,R})\cdot\text{CS}_2$

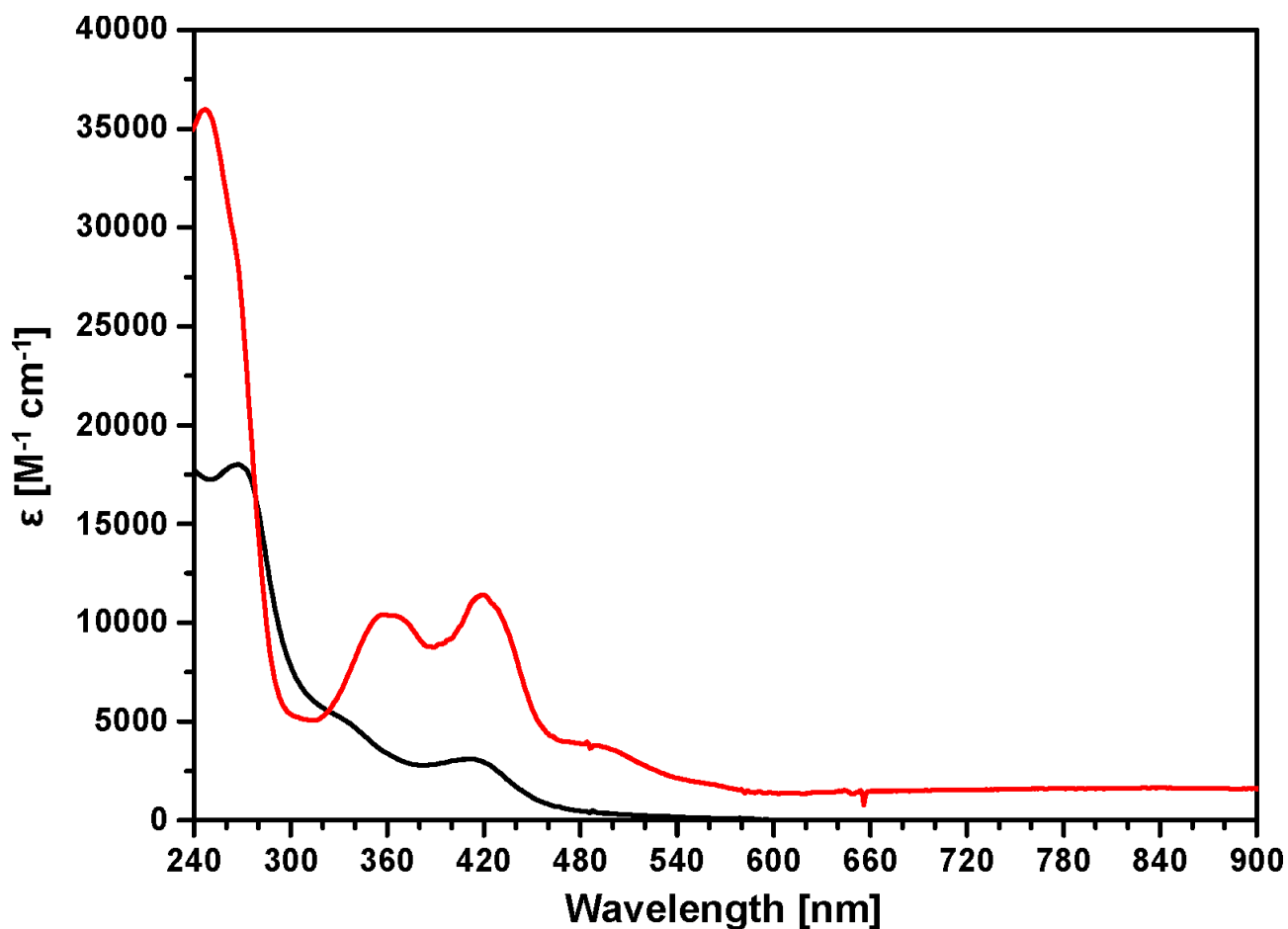


Figure S9. UV-vis spectra of $\text{Co}(\text{L}^{R,R})$ (red) and $\text{Co}(\text{NO})(\text{L}^{R,R})$ (black) in dichloromethane.

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