

**Electronic Supplementary Information:
3-(4-Pyridyl)-acetylacetonone - a full-featured substituted
pyridine and a flexible linker for complex materials**

CARINA MERKENS, KHAI-NHGI TRUONG AND ULLI ENGLERT *

RWTH Aachen University, Institute of Inorganic Chemistry, Landoltweg 1, 52074

Aachen. E-mail: ullrich.englert@ac.rwth-aachen.de

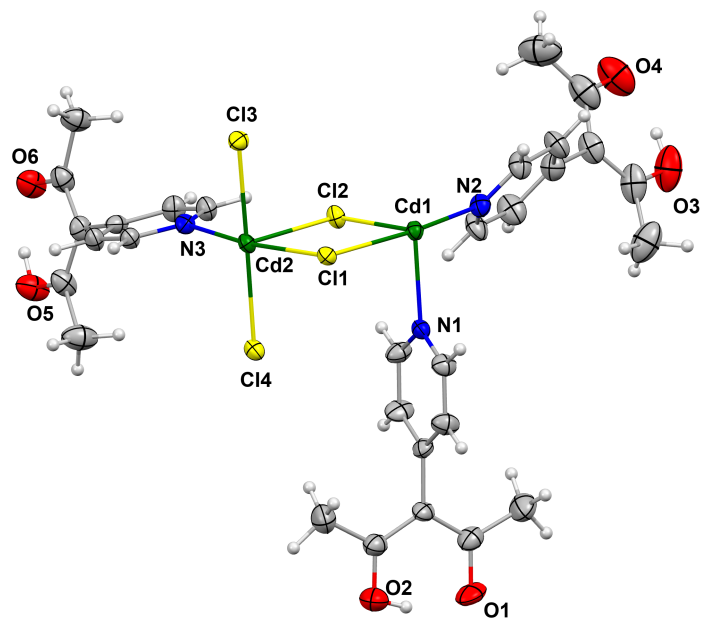


Fig. S1. Displacement ellipsoid plot the asymmetric unit of **1**. Ellipsoids are drawn at 70 % probability level.

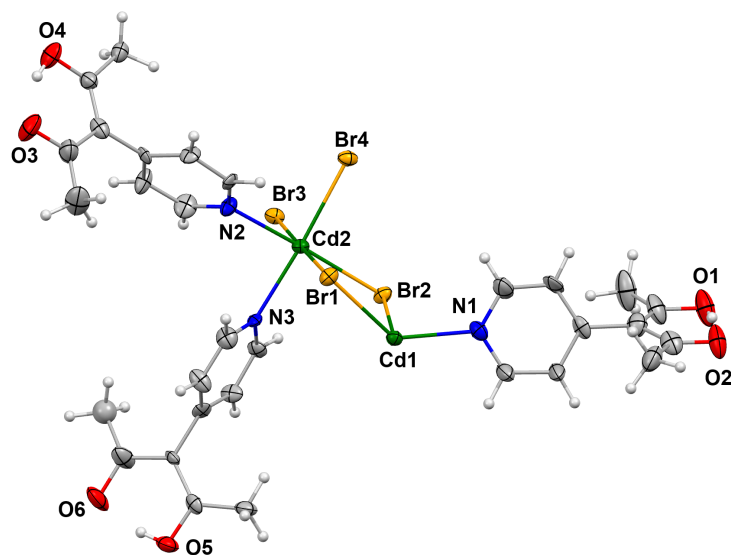


Fig. S2. Displacement ellipsoid plot of the asymmetric unit of **2**. Ellipsoids are drawn at 60 % probability level. One of the methyl groups shows positional disorder and has been refined isotropically. The minor occupation site has been omitted for clarity.

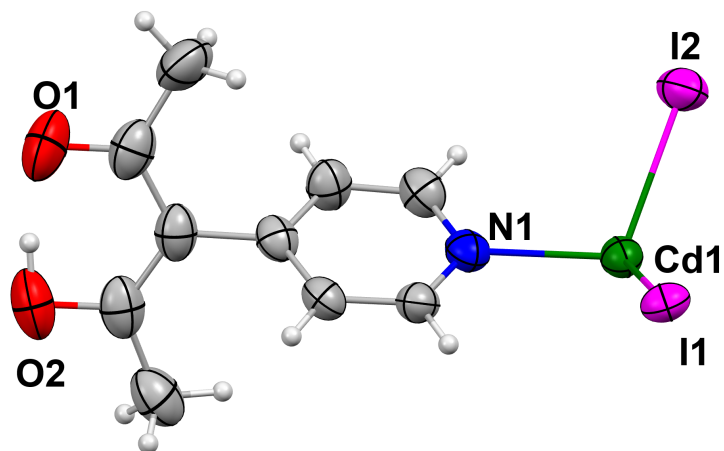


Fig. S3. Displacement ellipsoid plot of the asymmetric unit of **3a**. Ellipsoids are drawn at 90 % probability level.

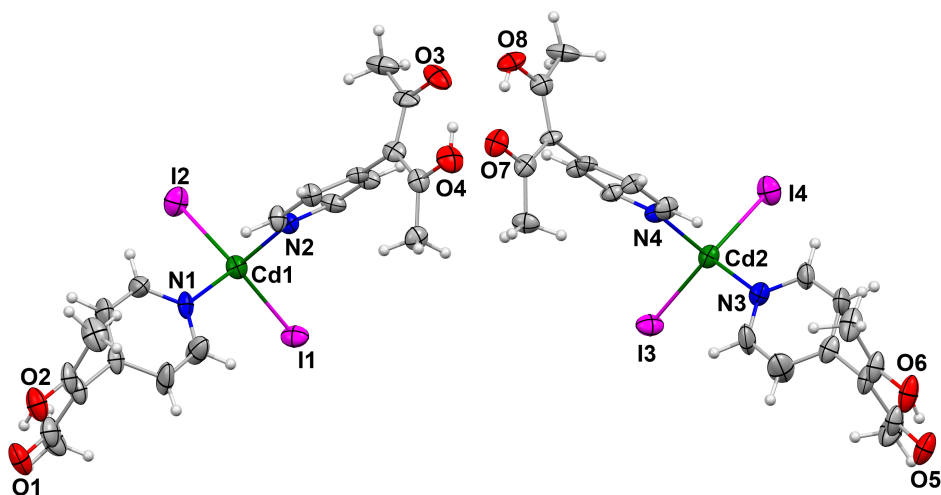


Fig. S4. Displacement ellipsoid plot of the asymmetric unit of **3b**. Ellipsoids are drawn at 60 % probability level.

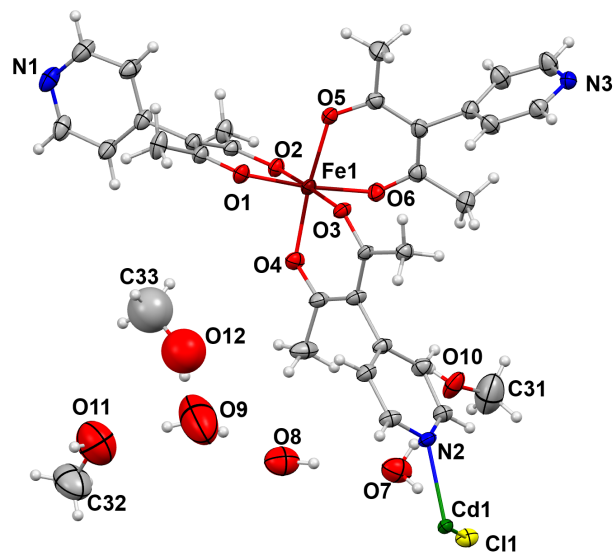


Fig. S5. Displacement ellipsoid plot of the asymmetric unit of **4**. Displacement ellipsoids are drawn at 60 % probability.

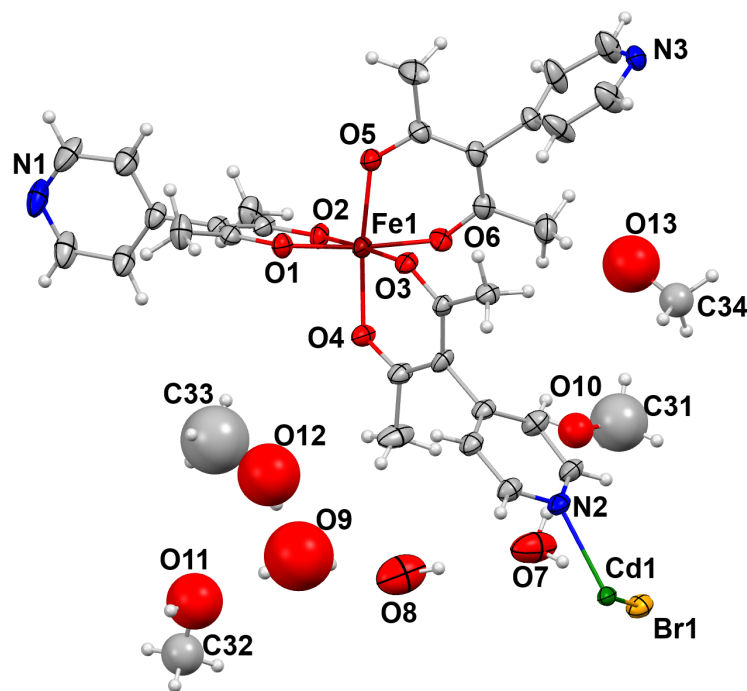


Fig. S6. Displacement ellipsoid plot of the asymmetric unit of **5**. Displacement ellipsoids are drawn at 60 % probability.

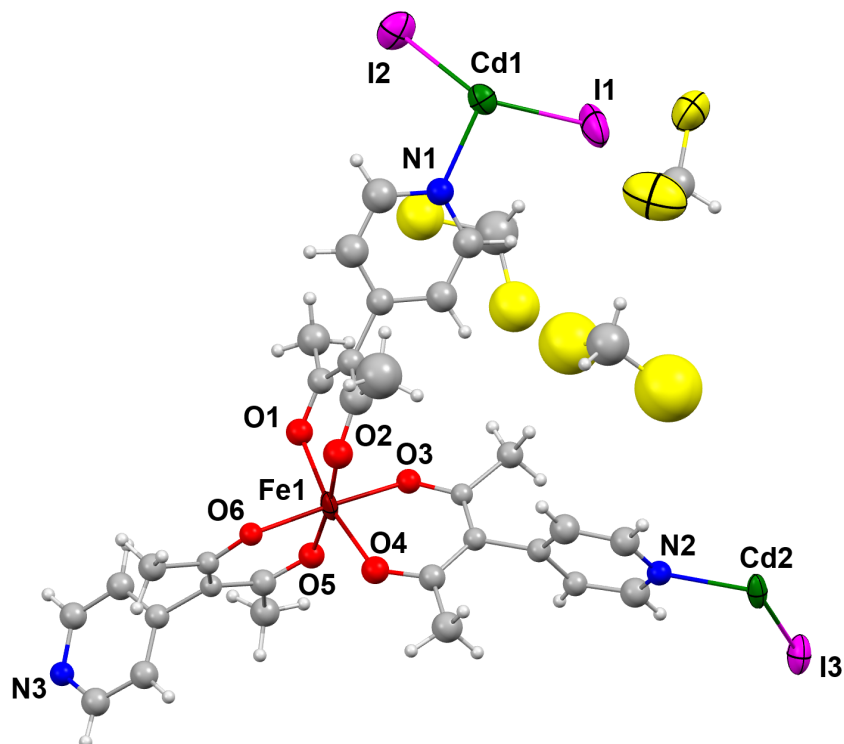


Fig. S7. Displacement ellipsoid plot of the asymmetric unit of **6**. Displacement ellipsoids are drawn at 60 % probability.

Table T1. Comparison of the refinement results for the bimetallic network **6** after and before treatment with the BYPASS procedure

Compound	BYPASS procedure	assignment of well ordered electron density
$R[F^2 > 2\sigma(F^2)]$	0.0664	0.0727
$wR_2(F^2)$	0.1626	0.2097
GOF	0.954	0.996
$\Delta\rho_{max}/\Delta\rho_{min}$ ($e \text{ \AA}^{-3}$)	2.313/-1.520	2.431/-1.561

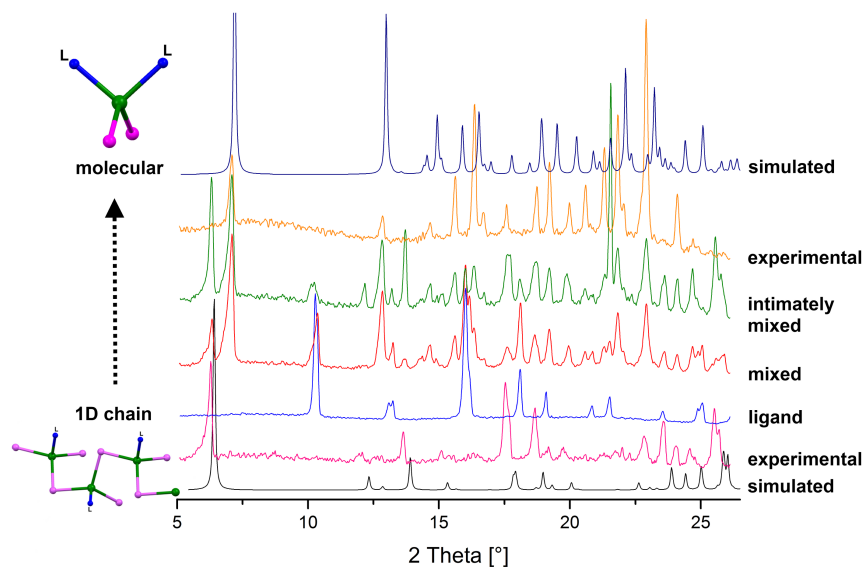


Fig. S8. Conversion of **3a** to **3b** by mechano chemical reaction of **3a** and HacacPy.

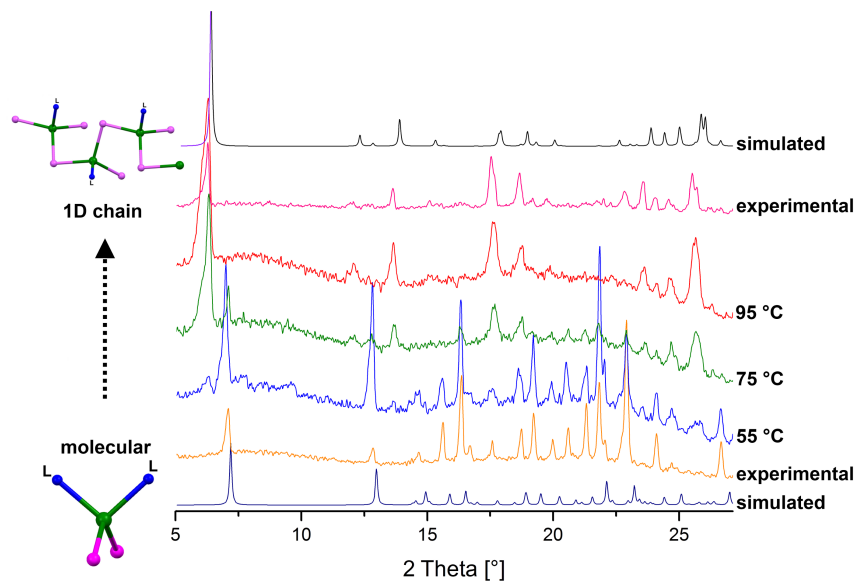


Fig. S9. Transformation of the molecular structure **3b** to the 1D chain structure **3a** by annealing in vacuo at different temperatures.