ELECTRONIC SUPPLEMENTARY INFORMATION

Constructing Cr^{III}-centered heterometallic complexes: $[Ni^{II}_6Cr^{III}]$ and $[Co^{II}_6Cr^{III}]$ wheels †

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Materials and physical measurements

All manipulations were performed under aerobic conditions, using materials as received. Elemental analyses (C, H, N) were performed by the University of Ioannina microanalysis service. Variable-temperature, solid-state direct current (dc) magnetic susceptibility data down to 2.0 K were collected on a Quantum Design MPMS-XL SQUID magnetometer equipped with a 5 T DC magnet at the University of Glasgow. Diamagnetic corrections were applied to the observed paramagnetic susceptibilities using Pascal's constants.

Elemental analysis for 1 and 2

Elemental Anal. calcd (found) for **1**· 3MeOH·H_2O: C 54.07 (54.16), H 4.51 (4.32), N 14.28 (14.22) %. **2**· 2MeOH: C 54.51 (54.59), H 4.40 (4.23), N 14.48 (14.40) %.

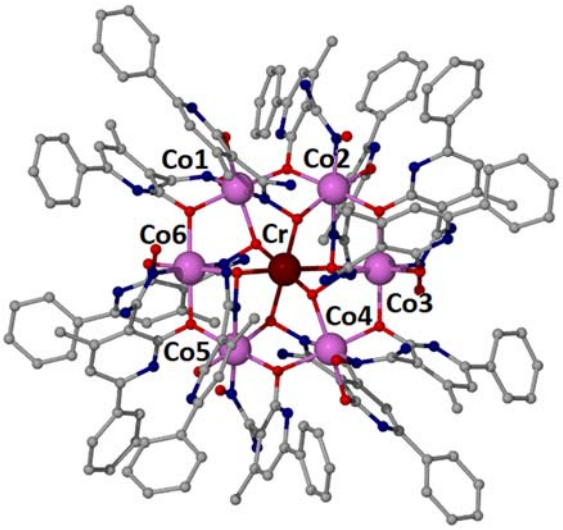

Figure S1. The molecular structure of **2**. Colour code: Cr(III) = brown; Co(II) = pink; O = red; N = blue; C = grey.

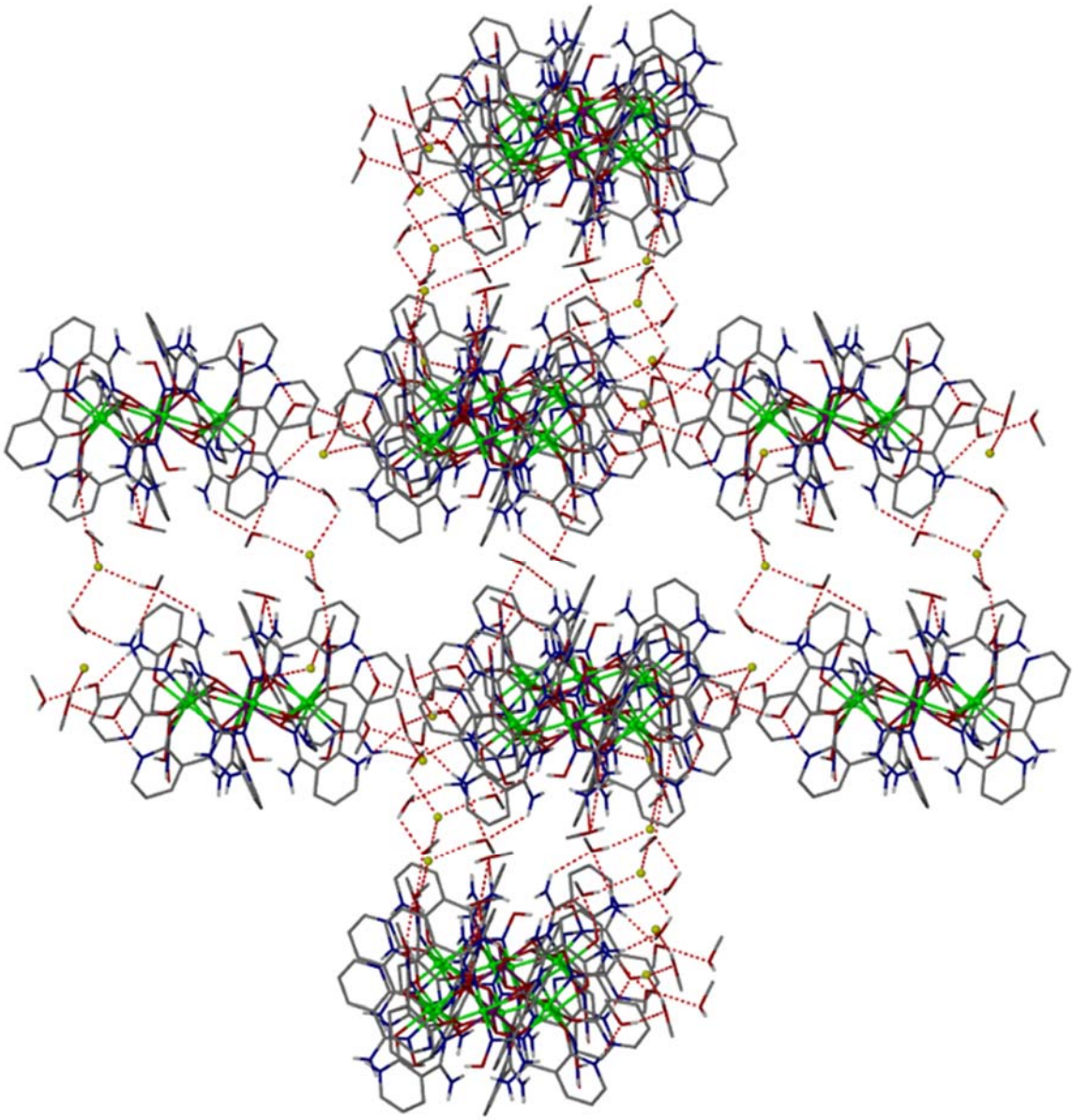

Figure S2. The packing of the molecules of **1** down the *a* axis showing the hydrogen-bonding interactions (dashed red lines). Several C and H atoms have been omitted for clarity. Disordered solvates were not considered. Color Code: C gray, N blue, O red, Ni green, Cr brown, H white.

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