Electronic Supplementary Information for Dalton Transactions

Structural and Magnetic Variability of Cobalt(II) Complexes with Bridging Pyrazolate Ligands Bearing Appended Imine Groups

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Table S1. X-Ray Data of HL^3

	HL^3
Empirical formula	$C_{47}H_{50}N_4$
Formula weight	670.51
crystal size [mm]	0.78 x 0.75 x 0.11
crystal system	Monoclinic
space group	$P2_1/c$ (No. 14)
a [Å]	25.819(5)
b [Å]	8.1503(16)
c [Å]	24.549(5)
α [°]	90
β [°]	116.88(3)
γ [°]	90
V [Å^3]	4607.8(16)
Z	4
$\rho_{calcd.}$ [g cm^{-3}]	0.967
F(000)	1440
μ [mm^{-1}]	0.056
hkl range	31±, -8 to 10+, ±30
θ range [°]	1.66 to 25.92
measured refl.	38404
unique refl. [R_{int}]	8898[0.2351]
observed refl. (I>2σ(I))	3093
ref. param. / restraints	213/0
goodness-of-fit	1.353
*R*1, *wR*2 (I>2σ(I))	0.2291, 0.4933
*R*1, *wR*2 (all data)	0.3524, 0.5584
resid. el. dens. [e Å^{-3}]	2.682/-0.635

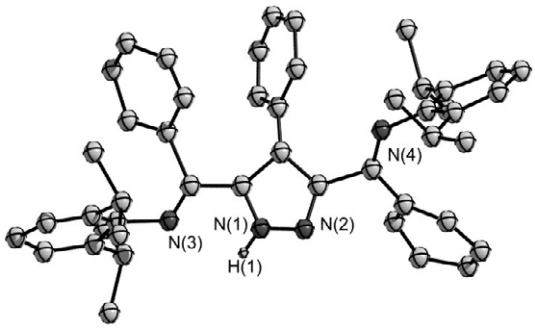

Fig. S1. Molecular structure of HL^3. In the interest of clarity most hydrogen atoms have been omitted.

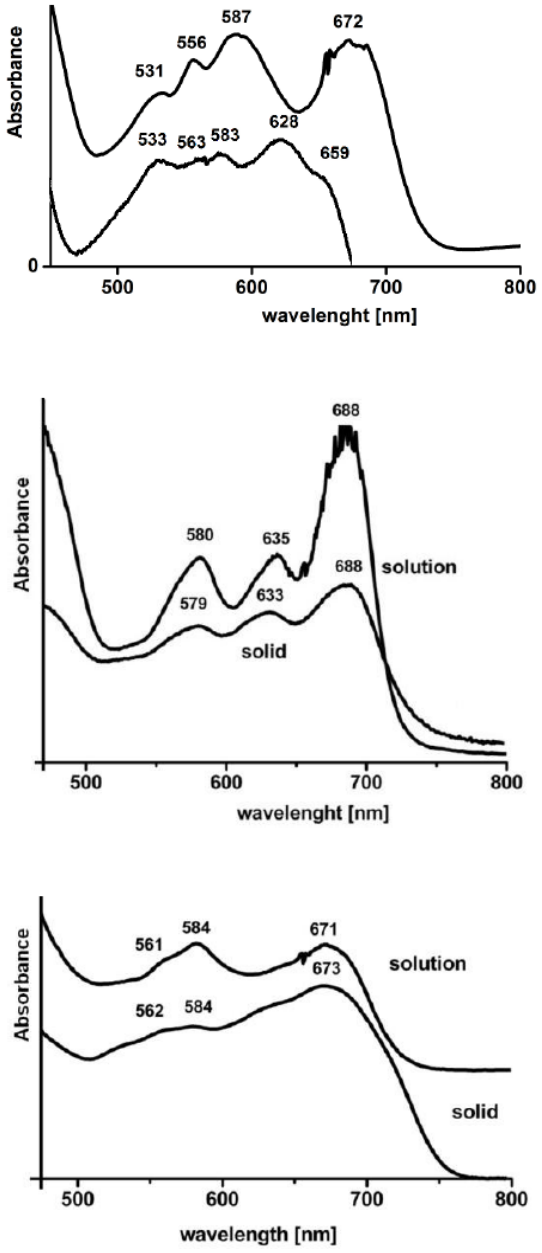

Fig. S2. Part of the UV-Vis spectra of **1** (top), **2** (middle) and **3** (bottom) in the solid state (diffuse reflectance) and in CH_2Cl_2 solutions.

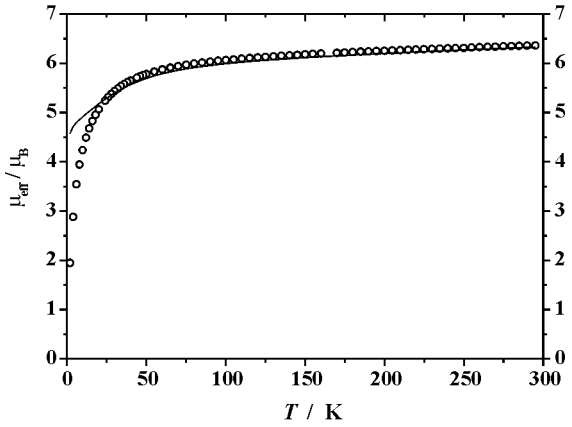

Fig. S3. μ_{eff} vs. T plot for **1.** The solid line represents the calculated curve fit when coupling constant J is excluded. Best fit parameters for **1** are g = 2.20, $|D|$ = 40 cm^{-1}, PI = 2.5 % (fixed) and TIP = 19.0×10^{-4} cm^{3}mol^{-1} (fixed).

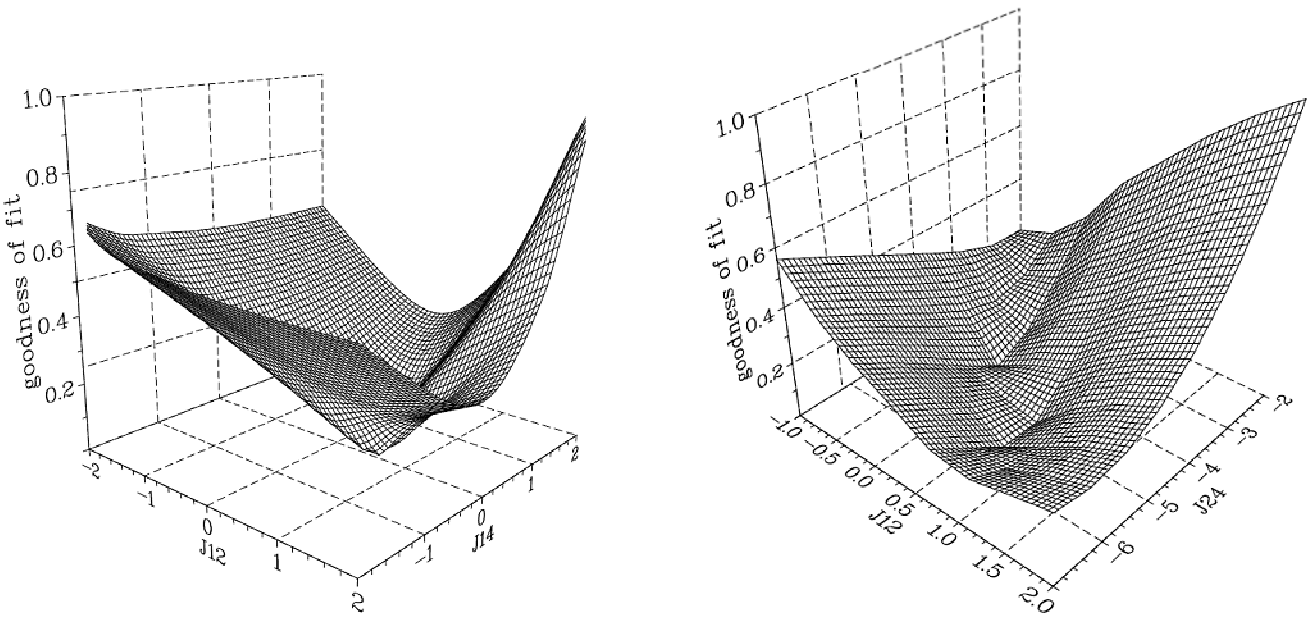

Fig. S4. The 3D error surfaces for the pairs J_2–J_3 (left) and J_1–J_2 (right).