Supporting Information for

Three new metal coordination polymers of bifunctional imidazolate/tetrazolate bridges: the only example of three- dimensional framework based on rare $[Co_4(\mu_3\text{-}OH)_2(\mu_2\text{-}Cl)_2]^{4+}$ mixed oxo-chloro-clusters

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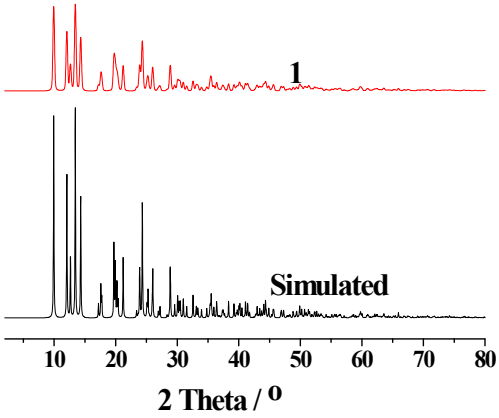

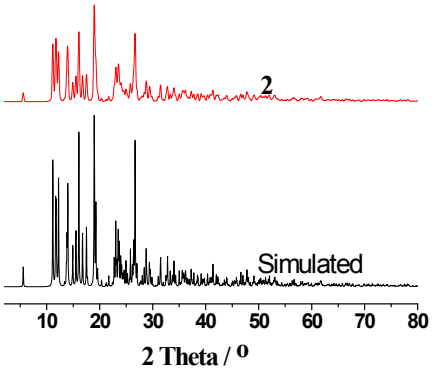

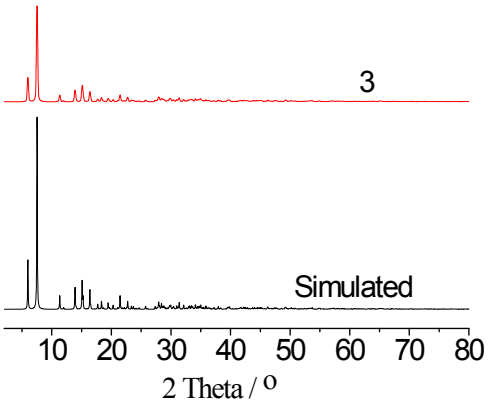

Fig. S1 Simulated and experimental powder XRD patterns of **1-3**.

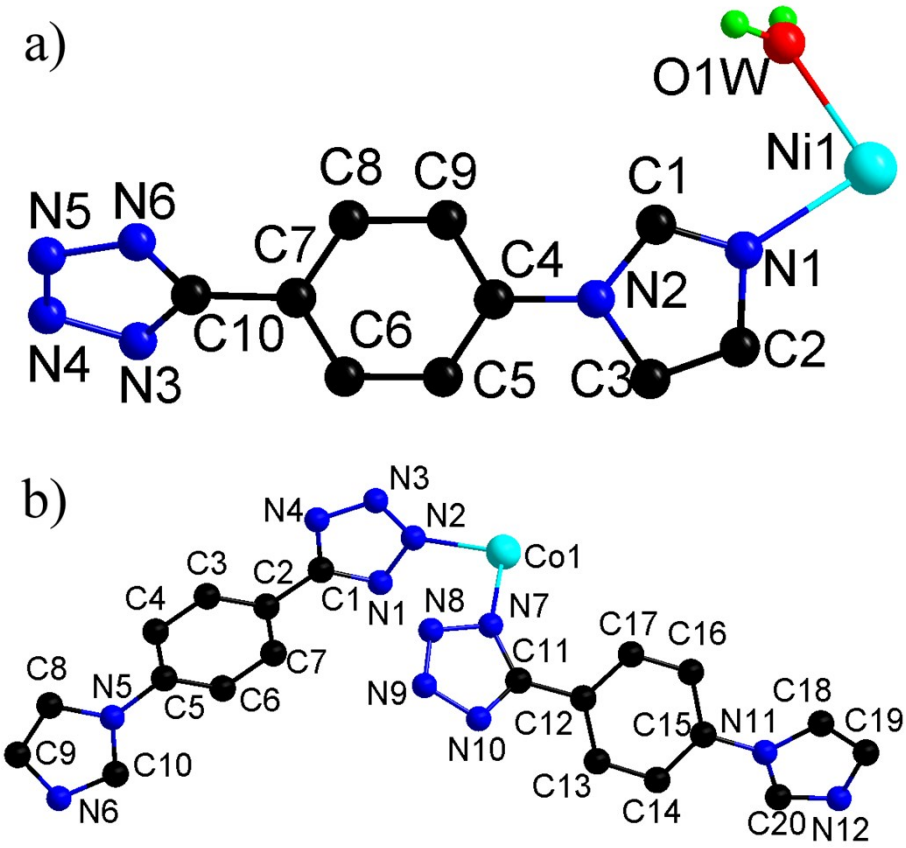

Fig. S2 The asymmetric units of **1** (a) and **2** (b) with labeling scheme. H atoms bonded to C atoms are omitted for clarity.

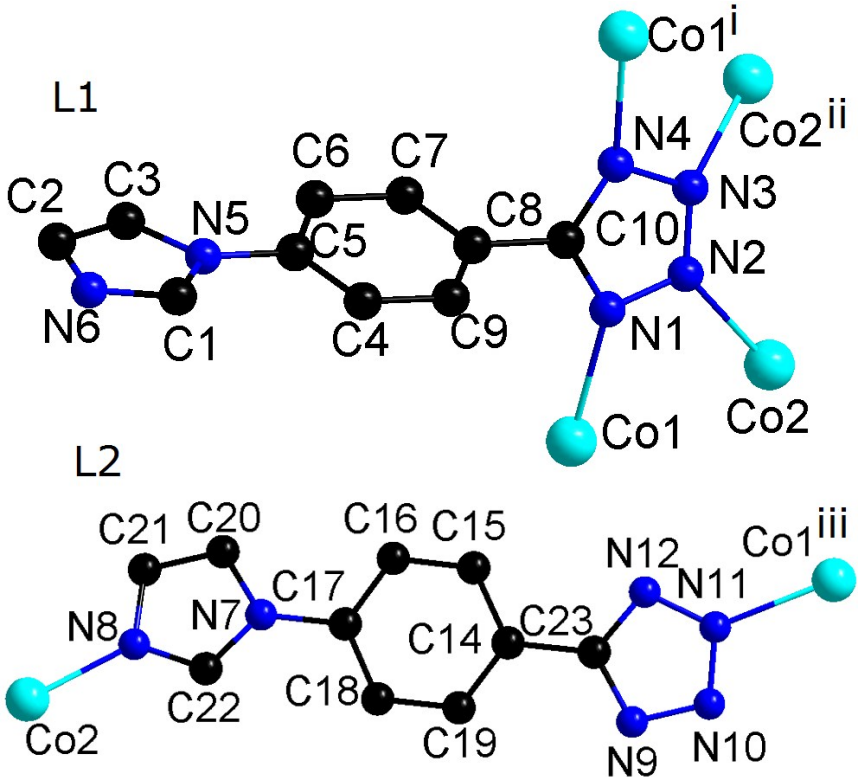

Fig. S3 The bridging modes of L^- ligand in **3**. [Symmetry operation: (i) x, 1+y, z; (ii) –x, 1-y, 1-z; (iii) -0.5+x, 0.5-y, -0.5+y]

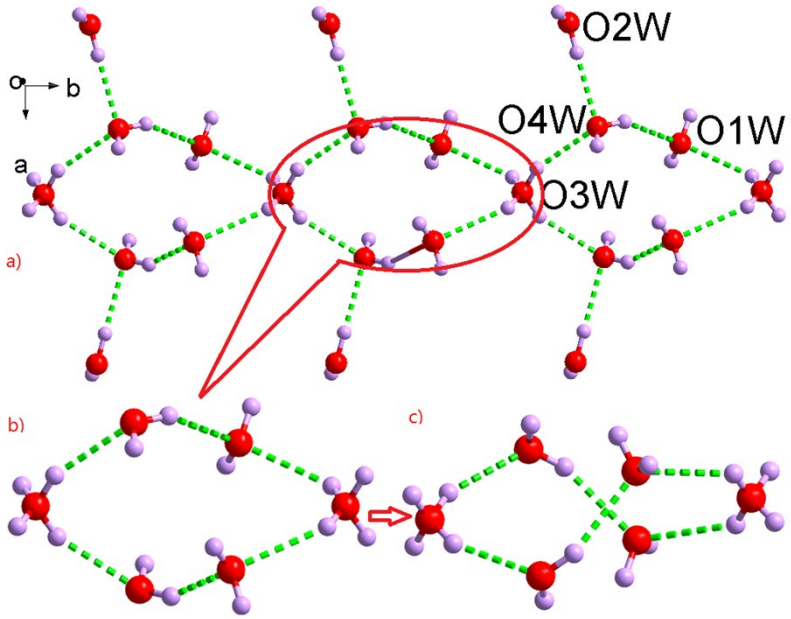

Fig. S4 a) 1-D chilopod $[(H_2O)_7]_n$ chain. The single $(H_2O)_6$ cluster unit {left, top view (b); right, side view(c)}.

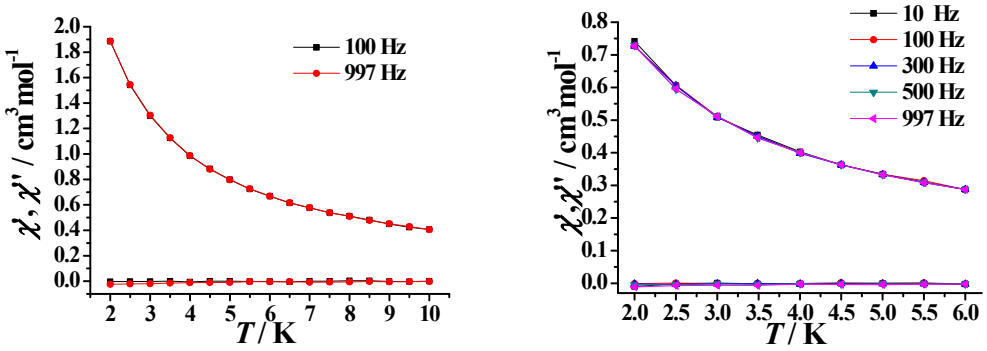

Fig. S5. Temperature dependence of in-phase and out-of-phase ac susceptibilities of **1** (left) and **2** (right) at different frequency in zero dc field and 2.5 Oe ac field.

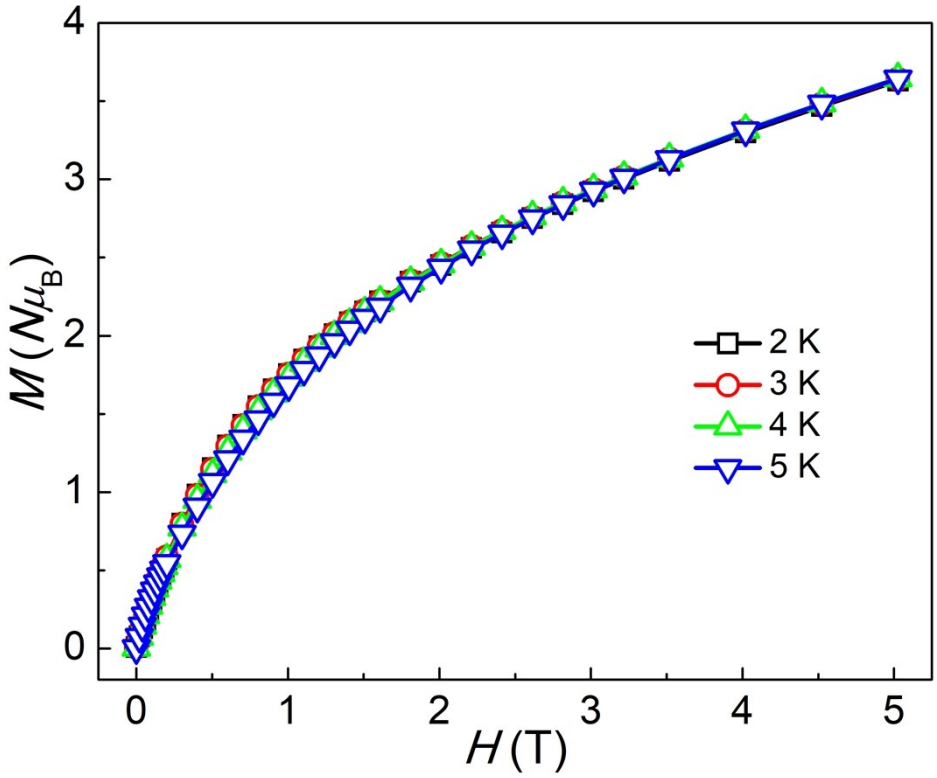

Fig. S6 The magnetization versus the dc field in the temperature range of 2–5 K for **1**.

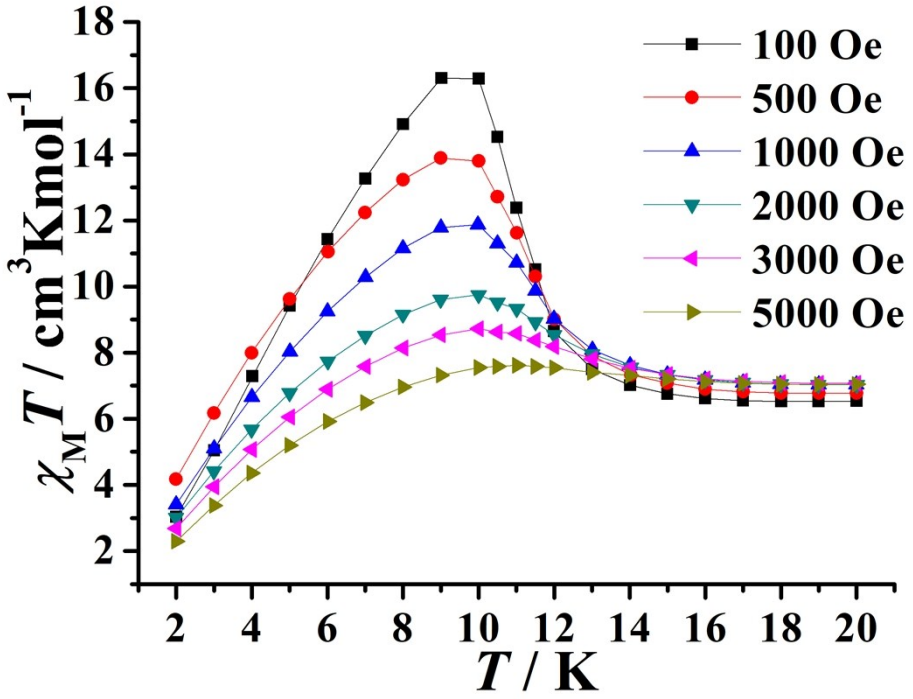

Fig. S7 Temperature dependence of the field-cooled magnetic susceptibility of **3**.