Electronic Supplementary Material (ESI) for CrystEngComm.

Novel isomorphism of two hexagonal non-centrosymmetric hybrid crystals of $M(en)_3Ag_2I_4$ (M = transition metal Mn^{2+} or main-group metal Mg^{2+}; en = ethylenediamine)

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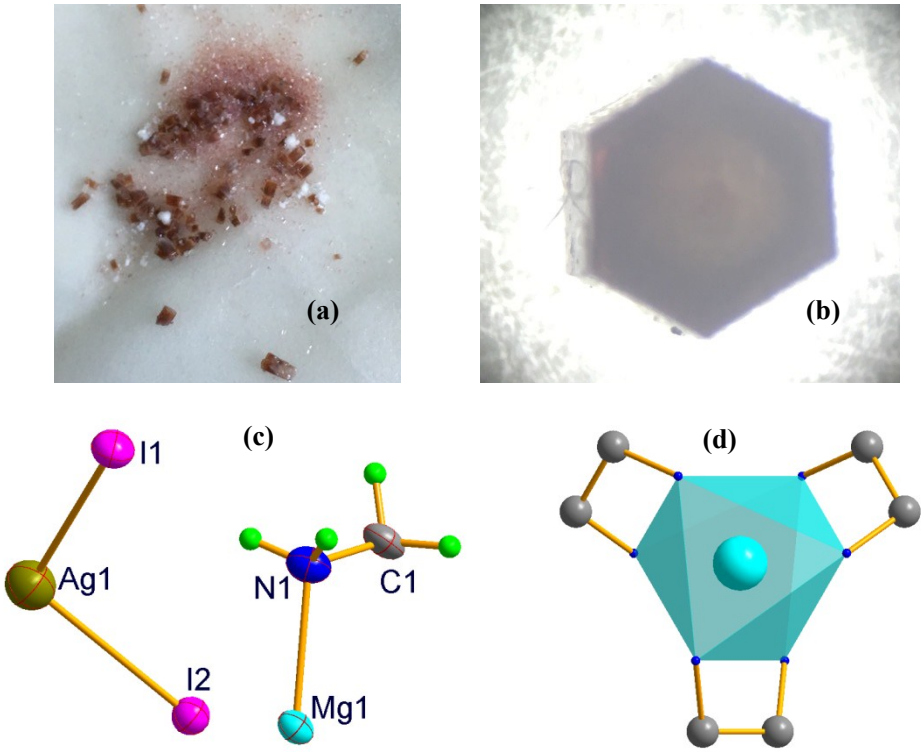

Fig. S1 (a, b) Photos of crystals of **2** (c) An asymmetric unit in **2** with non-hydrogen atom labeling, where the ellipsoids are drawn at the 50% probability level (d) $Mg(en)_3^{2+}$ coordination polyhedron with the symmetry of D_3 point group.

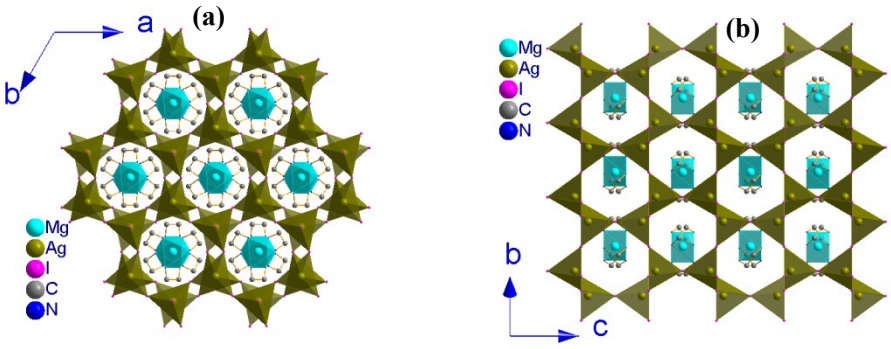

Fig. S2 Packing diagrams, which shows hexagonal channels built from AgI_4 tetrahedra and $Mn(en)_3^{2+}$ polyhedra residual in the channels viewed along (a) c-axis (b) *a*-axis directions in **2**.

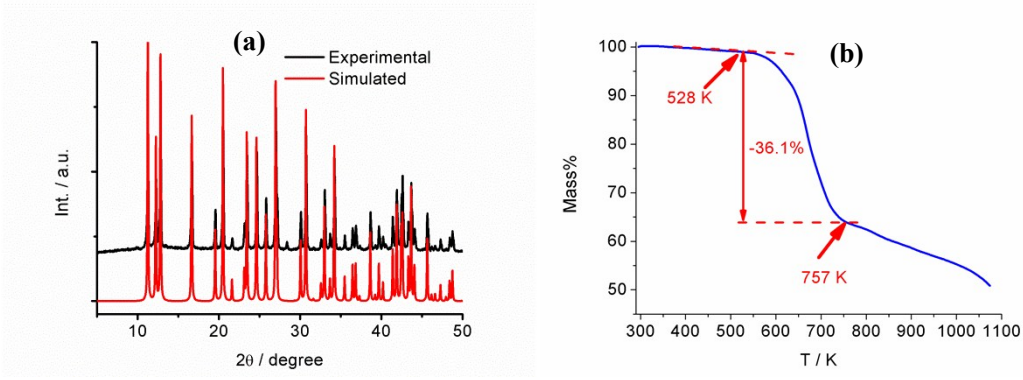

Fig. S3 (a) Experimental and simulated PXRD patterns and (b) TG plot of **2**.

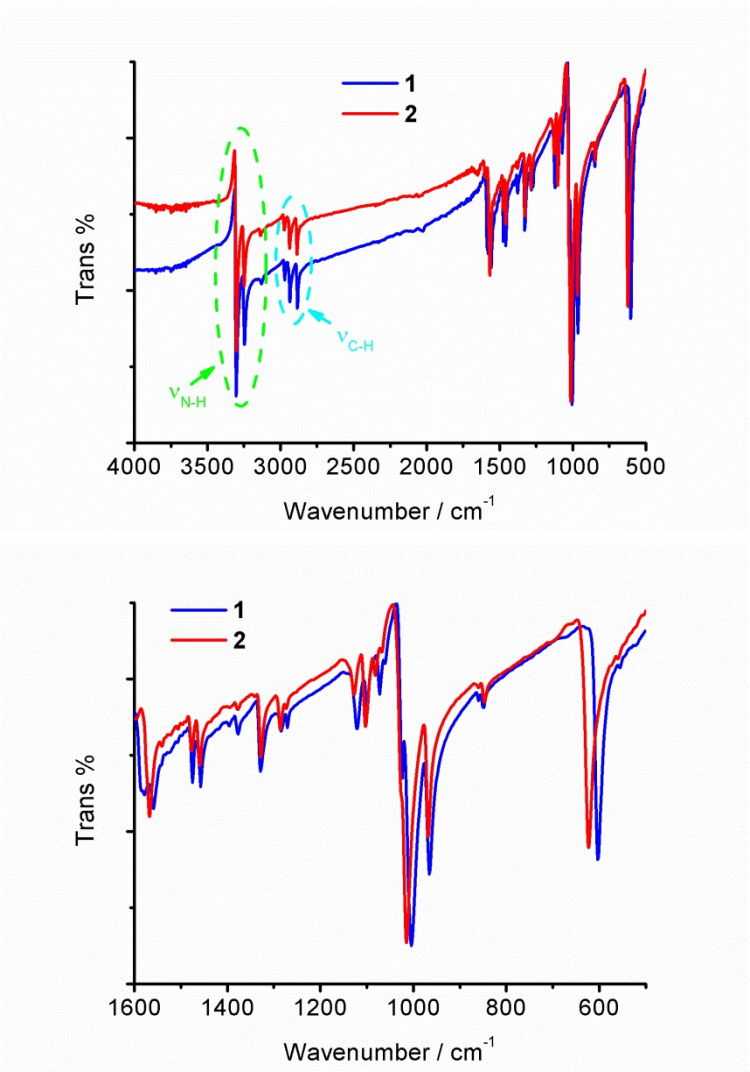

Fig. S4 IR spectra of **1** and **2**.