Supporting Materials

A polythreading coordination array formed from 3D microporous porous network and 1D ladders†

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Fig. S1 The coordination of the Cd(II) atom in 1. Symmetry transformations used to generate equivalent atoms: A 1.5-x, 0.5-y, 0.5-z; B 1.5-x, y, 0.5-z; C x, 0.5-y, z; D -0.5+x, 0.5-y, 0.5-z; E 1-x, y, z; F 1-x, -y, -z; G x, -y, -z; H 1-x, 0.5-y, z; I -0.5+x, -0.5+y, -0.5+z; J 1.5-x, -y, -0.5+z.
Fig. S2  One chain connects adjacent chains in 1 viewing along the a direction.

Fig. S3  The coordination environment of the Cd1 atom in 2. Symmetry transformations used to generate equivalent atoms: A –x+1, -y+1, -z+1; B –x+3/2, -y+1, z+1/2; C x-1/2, y, -z+1/2; G x, 0.5-y, z; H 1.5-x, 1-y, -0.5-z; I 0.5+x, 0.5-y, 0.5-z.
**Fig. S4** The [Cd(btre)Cl]$_n^{0+}$ three-dimensional microporous cation network in 2.

**Fig. S5** Solid state emissions of 1 and 2.