Two-dimensional assembly of tetrahedral chalcogenide clusters

with tetrakis(imidazolyl)borate ligands

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Figure captions:

**Figure S1.** A view of the C1 cluster in compound 1.

**Figure S2.** A view of the packing of layers along the [010] direction.

**Figure S3.** IR spectrum of compound 1.

**Figure S4.** TGA curve of compound 1 in N$_2$ with a heating rate of 10 °C.

**Figure S5.** Experimental and simulated XRD patterns of compound 1.
Figure S1
Figure S2
FTIR data (cm\(^{-1}\)) : 3050 (m, \(\nu(=CH)\)), 1580 (s, \(\delta(C=C)\)), 1480 (vs, \(\delta(C=C)\)), 1440 (m, \(\delta(C=C)\)), 1210 (m, \(\nu(C-C)\)), 1090 (s, \(\nu(C-S)\)), 1020 (m, \(\nu(C-S)\)), 818 (m, \(\delta(=CH)\)), 739 (vs, \(\delta(=CH)\)), 690 (vs, \(\delta(=CH)\)).
Figure S5