

Supplementary Materials: Three-Dimensional Cadmium(II) Cyanide Coordination Polymers with Ethoxy-, Butoxy- and Hexyloxy-ethanol

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S1: Experiment for TGA measurement

All TGA measurements were performed by a SII EXSTAR TG/DTA 6200 (SII, Chiba, Japan). The samples were put in aluminum pan and the TGA data were measured from RT to 500 °C under nitrogen atmosphere and heating rate of 4 °C min⁻¹.

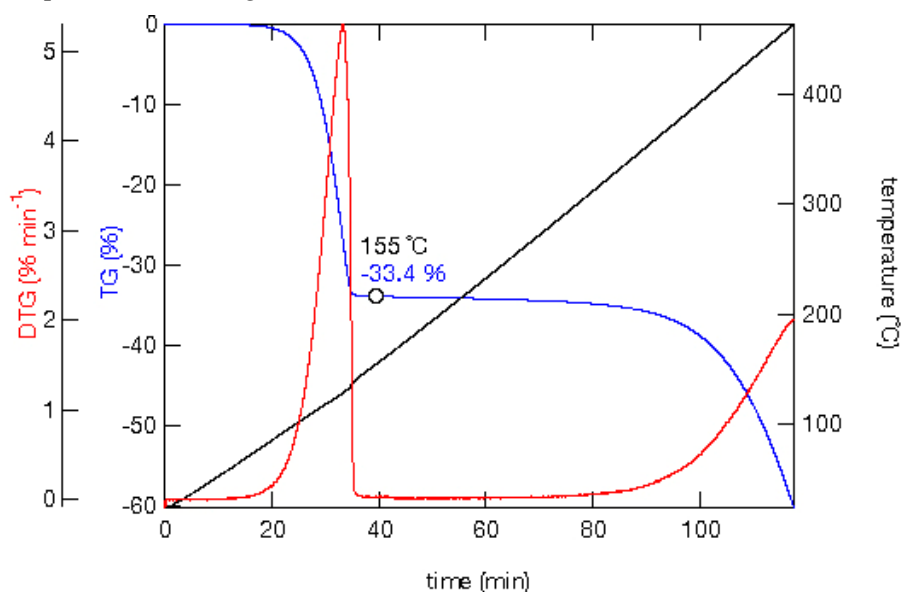


Figure S1. TG and DTG plots of **I**. Calculated for percentage by mass of Etcel ligand per **I**: 35.40%.

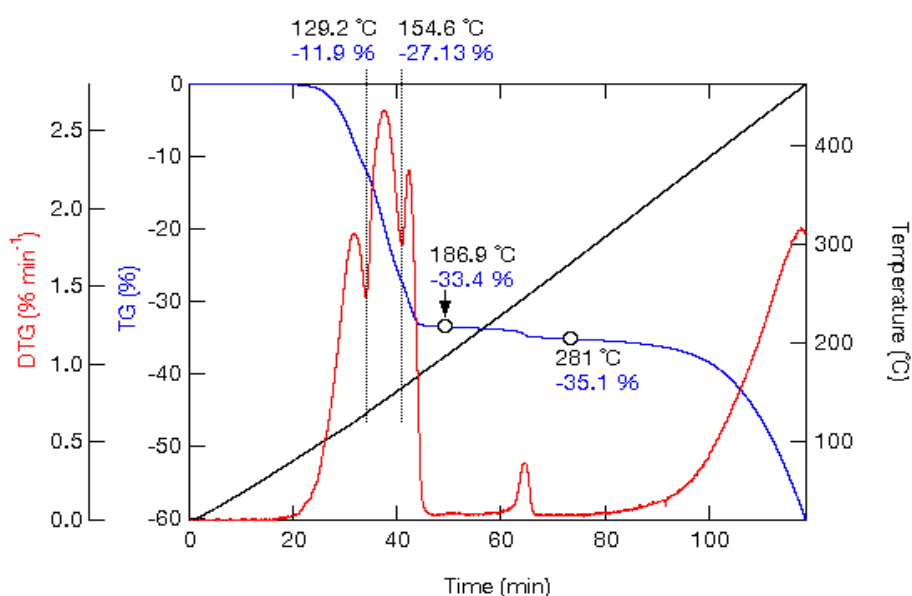


Figure S2. TG and DTG plots of **II**.

TG curve was observed seeming one-steps weight loss about range from 100 to 180 °C. However, DTG curve showed that the weight loss was three-steps. The weight loss about 200 °C seems to trigger decomposition [1] of Cd(CN)₂ framework for weight loss at more than 300 °C. Calculated for percentage by mass of Bucel ligands per **II**: 35.02%.

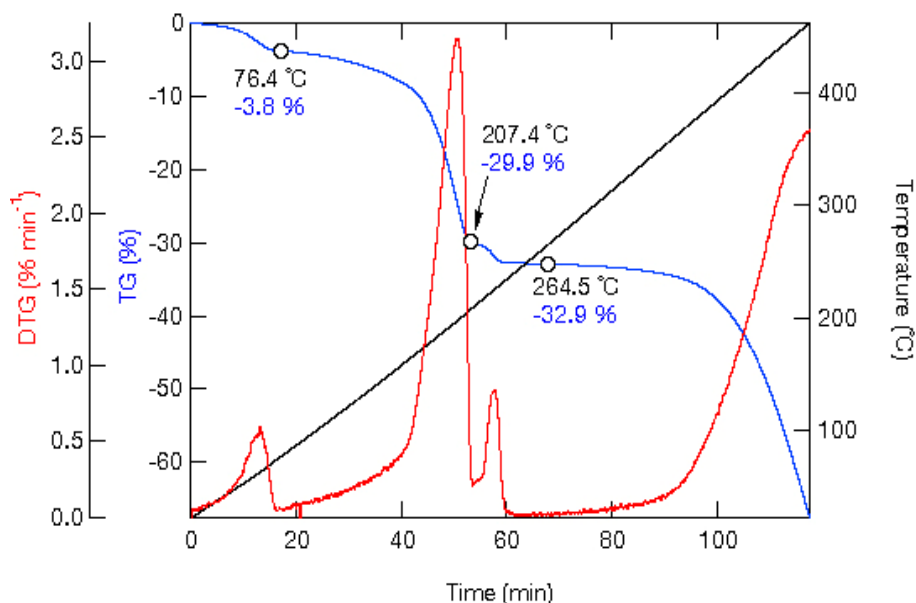


Figure S3. TG and DTG plots of **III**.

Calculated for percentage by mass of Hexcel molecules and H₂O molecules per **III**: 29.66% and 3.65%, respectively.

Reference:

- 1 Bryant, M.R.; Burrows, A.D.; Fitchett, C.M.; Hawes, C.S.; Hunter, S.O.; Keenan, L.L.; Kelly, D.J.; Kruger, P.E.; Mahon M.F.; Richardson, C. The synthesis and characterisation of coordination and hydrogen-bonded networks based on 4-(3,5-dimethyl-1H-pyrazol-4-yl)benzoic acid. *Dalton Trans.* **2015**, *44*, 9269–9280.



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