

Electronic Supplementary Information (ESI)

for

**Stepwise assembly of a semiconducting coordination polymer
[Cd₈S(SPh)₁₄(DMF)(bpy)]_n and its photodegradation of organic
dyes**

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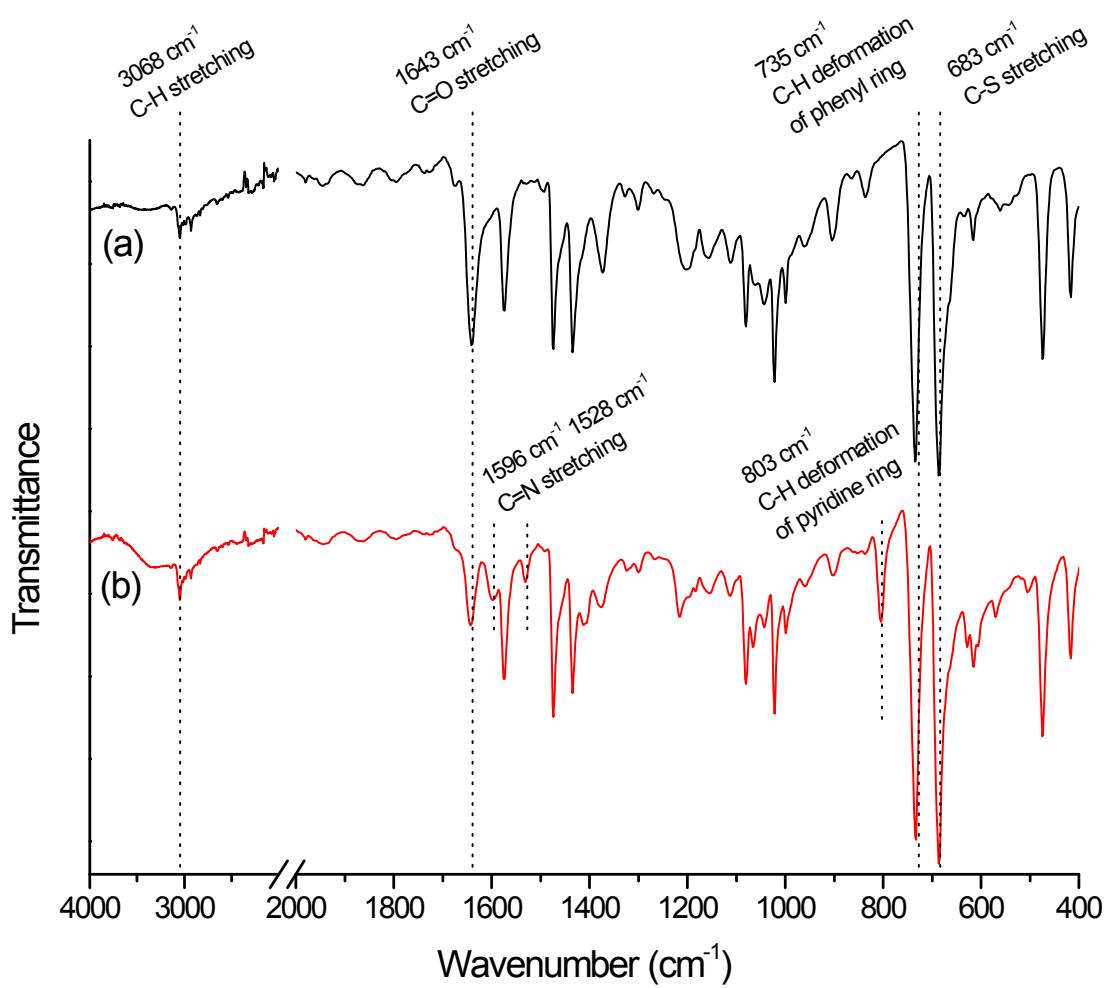


Fig. S1 Infrared spectra of (a) cluster **1** and (b) coordination polymer **2**.

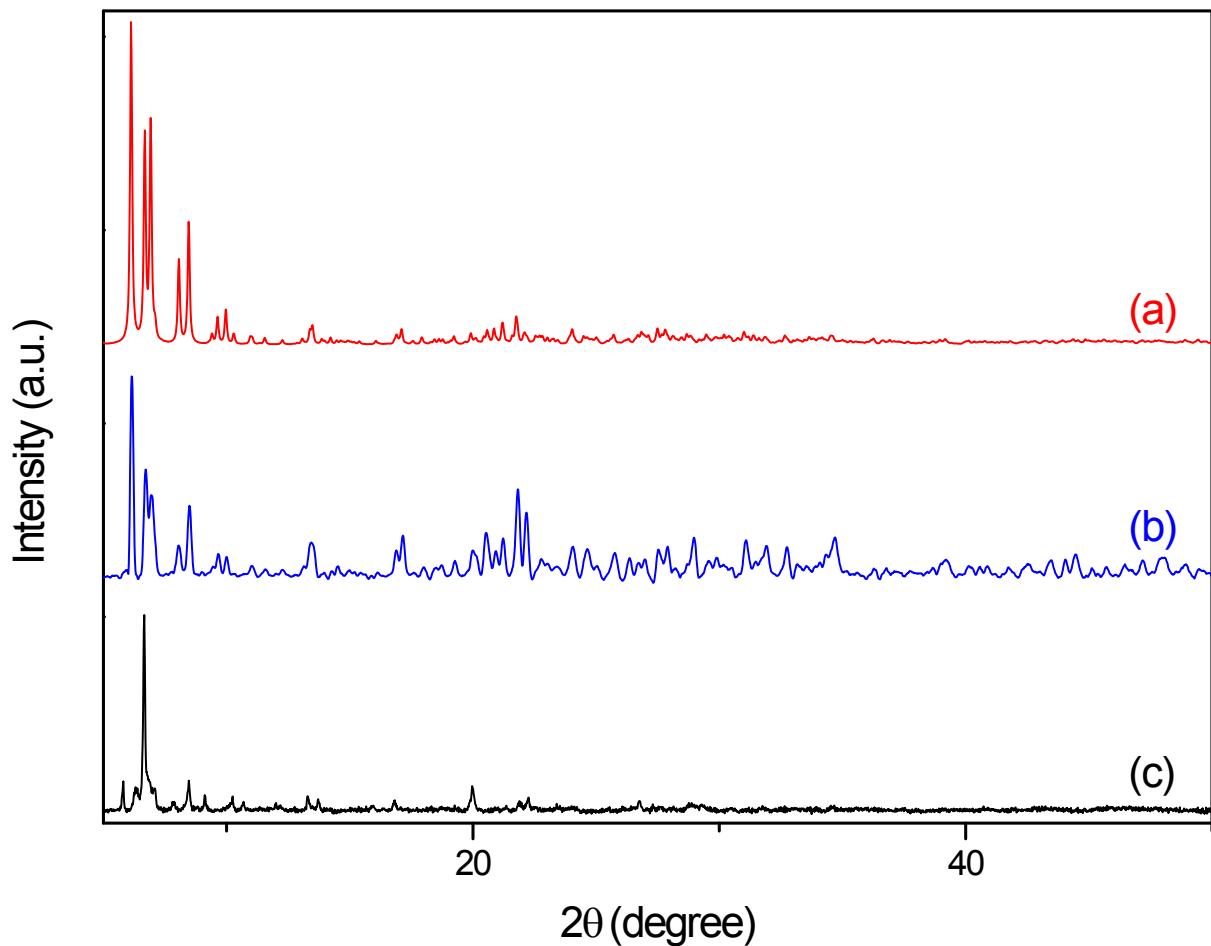


Fig. S2 Comparison of (a) simulated and (b) experimental powder X-ray diffraction patterns of cluster **1**, (c) XRD pattern of cluster **1** after soaking in water for 2 days.

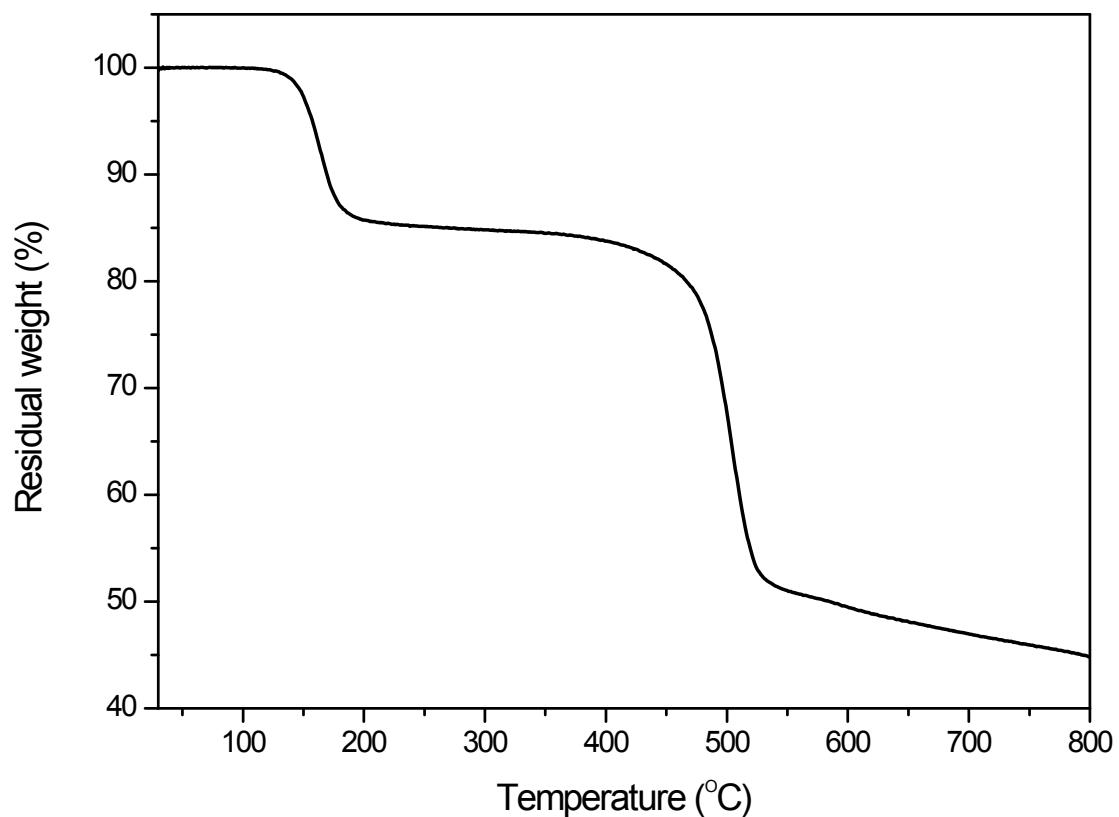


Fig. S3 Thermal gravimetric analysis (TGA) curve of cluster **1**.

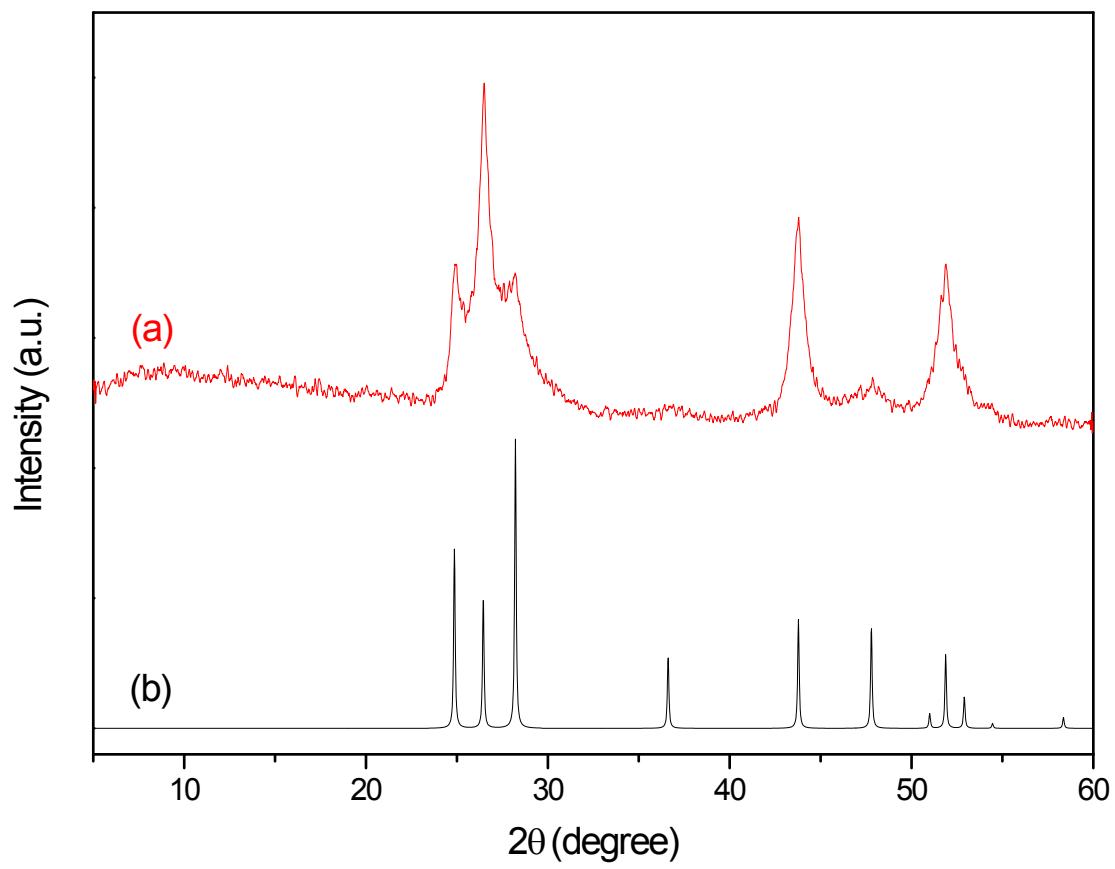


Fig. S4 Comparison of powder X-ray diffraction patterns of (a) pyrolysis residue of cluster **1** (b) standard hexagonal CdS.