## **Electronic Supporting Information**

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## The effect of solvent on one-dimensional cadmium coordination polymers

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**Table S1** Different methods for synthesis of compound 1.

M:L	Solvent	T(°C)	Method
1:1	МеОН	60	Convection
1:1	EtOH	60	Convection
1:1	CH <sub>3</sub> CN	60	Convection
1:1	MeOH:DMF	RT(25°C)	Solvent diffusion
1:1	H <sub>2</sub> OH:MeOH	RT(25°C)	Solvent diffusion
1:1	EtOH:CH <sub>3</sub> CN	RT(25°C)	Solvent diffusion

Table S2 Selected bond lengths [Å] and angles [°] for 1.

Cd(1)—N(1)	2.315(5)	N(1)—Cd(1)—I(2)	106.80(13)
Cd(1)—I(1)	2.695(12)	N(1)—Cd(1)—I(1)	104.10(13)
Cd(1)—I(2)	2.684(10)	I(1)—Cd(1)—I(2)	134.49(4)

**Table S3** Selected bond lengths [Å] and angles [°] for **2**.

Cd(1)—N(1)	2.341(6)	N(1)— $Cd(1)$ — $I(2)$	99.89(14)			
Cd(1)—N(4) <sup>#1</sup>	2.358(6)	I(1)—Cd(1)—I(2)	98.19(2)			
Cd(1)—I(1)	2.9229(7)	N(1)— $Cd(1)$ — $O(2)$	86.8(2)			
Cd(1)—I(2)	2.8356(8)	N(1)—Cd(1)—O(1)	79.9(2)			
Cd(1)—O(1)	2.510(4)	O(2)—Cd(1)—O(1)	86.17(15)			
Cd(1)—O(2)	2.348(4)	O(2)— $Cd(1)$ — $I(2)$	83.42(11)			
Symmetry code: #1: $-x$ , $y + \frac{1}{2}$ , $-z + \frac{1}{2}$						

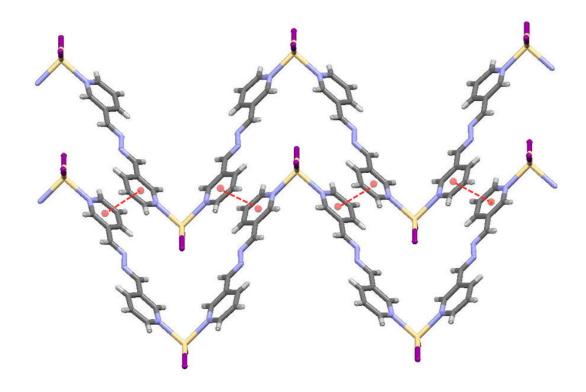
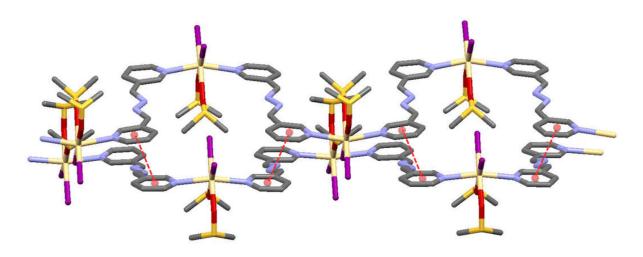
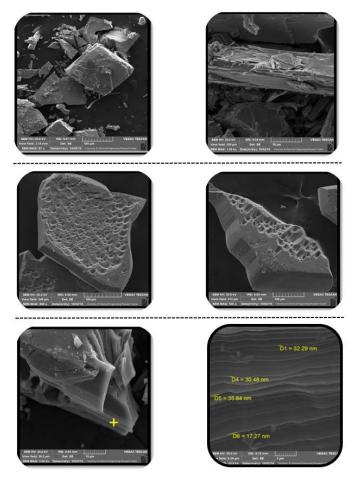


Figure S1  $\pi$ -  $\pi$  interactions with a Cg-Cg distance of 3.489(4) Å in 1.



**Figure S2**  $\pi$ -  $\pi$  interactions with a Cg-Cg distance of 3.684(4) Å in **2**.



**Figure S3** SEM images of crystal of compound **1** obtained in different solvents. top: methanol, middle: ethanol, bottom: acetontrile.

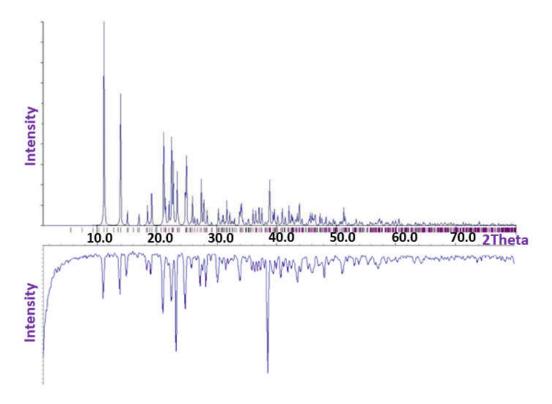


Figure S4 PXRD patterns of compound 1: (top) simulated, (bottom) as-synthesized.

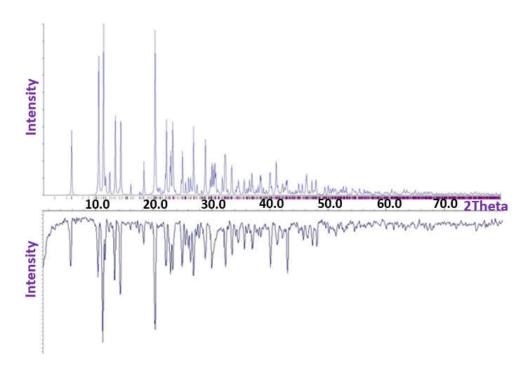


Figure S5 PXRD patterns of compound 2: (top) simulated, (bottom) as-synthesized.