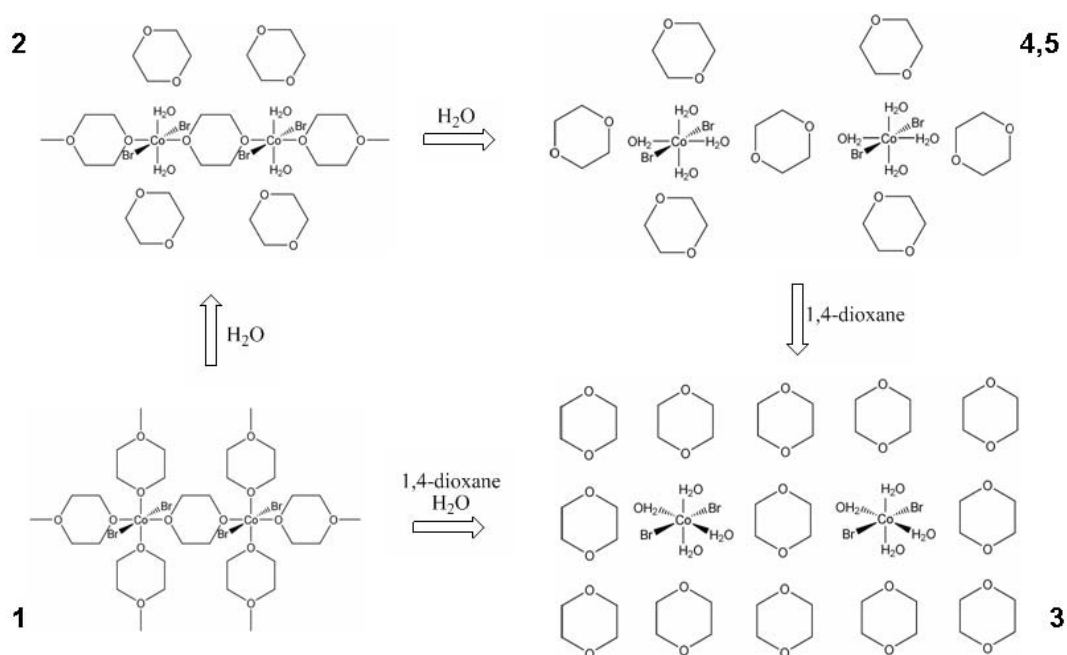


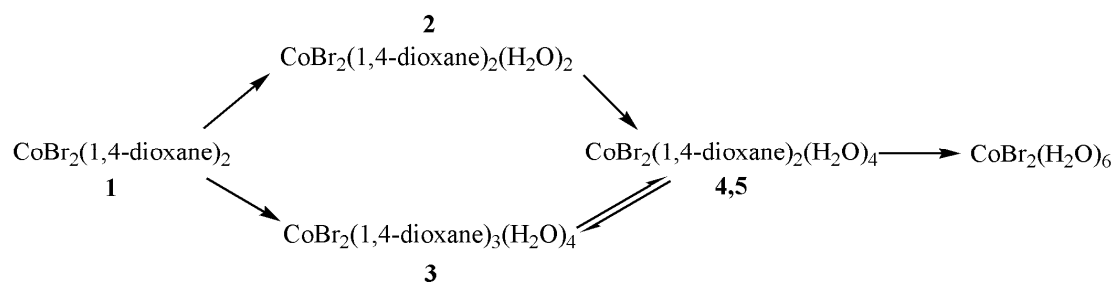
## Supporting Information for “Solvent-Mediated Crystal-to-Crystal

### Transformation within $\text{CoBr}_2(1,4\text{-dioxane})_m(\text{H}_2\text{O})_n$ Family ( $m = 2, 3$ ;

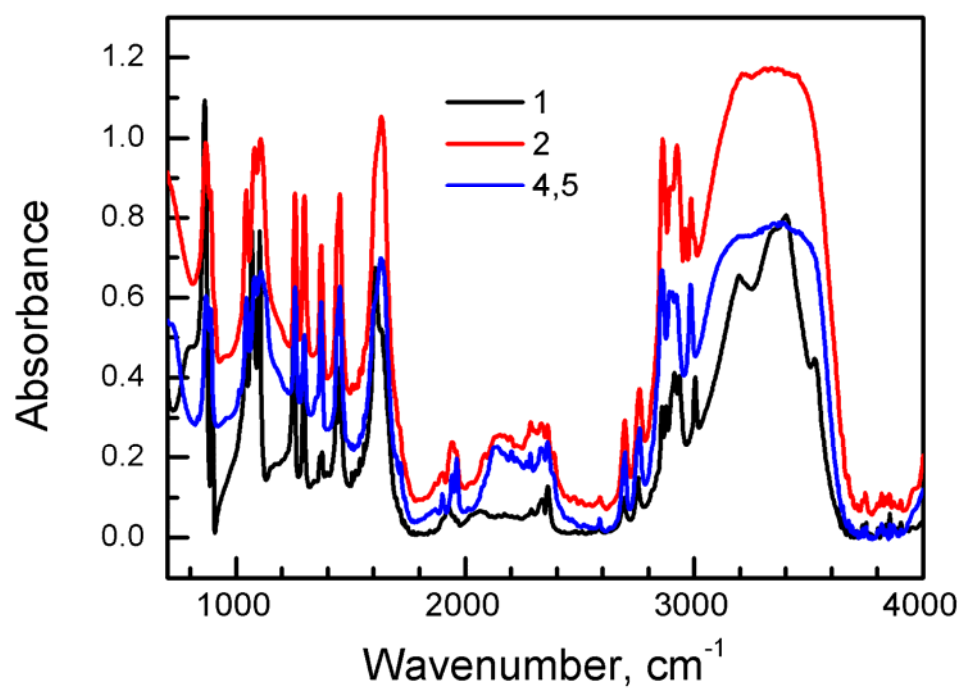
$n = 0, 2, 4$ ) from 2D to 1D, and 0D” by Bin Zhang *et al*



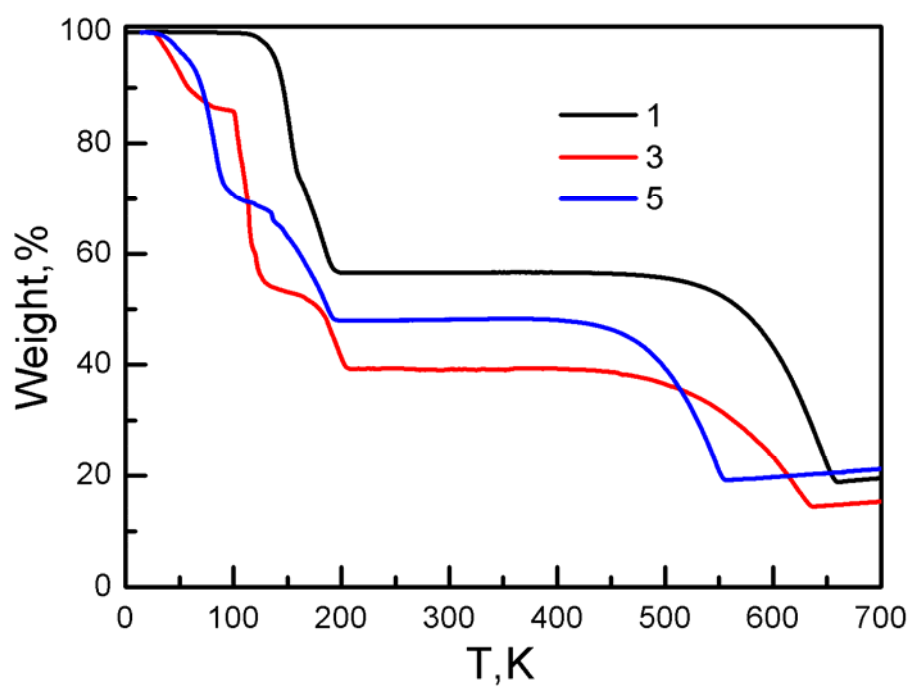
**Scheme S1.** The structural relationship between 1, 2, 3 and 4, 5.



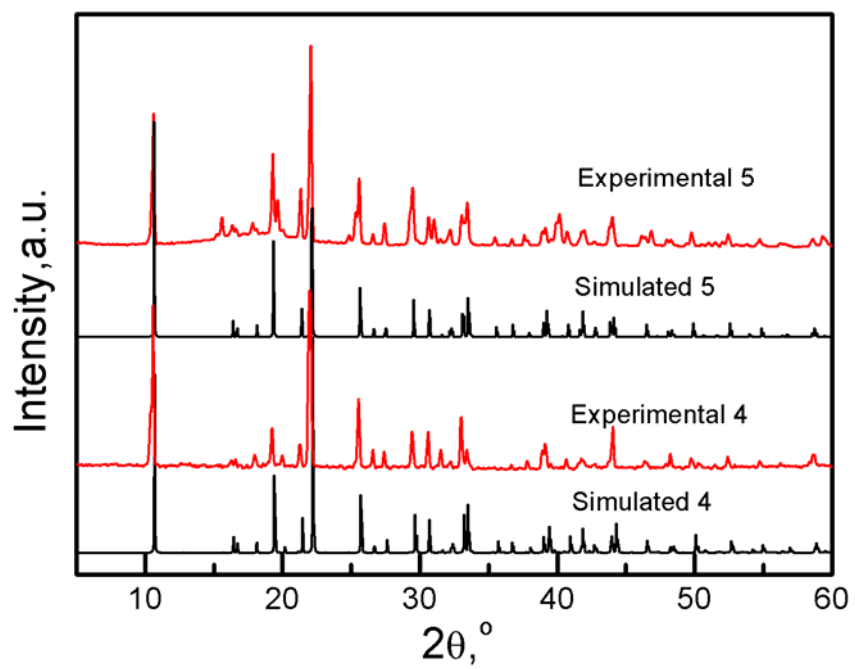
**Scheme S2.** The relationship between **1, 2, 3, 4, 5** and  **$\text{CoBr}_2(\text{H}_2\text{O})_6$** .



**Figure S1.** IR spectra of **1**, **2**, **4**, and **5**.



**Figure S2.** TGA plots of  $\text{CoBr}_2(1,4\text{-dioxane})_2$  (**1**),  $\text{CoBr}_2(1,4\text{-dioxane})_3(\text{H}_2\text{O})_4$  (**3**),  $\text{CoBr}_2(1,4\text{-dioxane})_2(\text{H}_2\text{O})_4$  (**5**) from room-temperature to 700°C.



**Figure S3.** XPRD plots of **4**, **5**.