

Electronic Supplementary Information (ESI)

Architectures Varying from Discrete Molecular Units to 2-Dimensional Coordination Polymers and Photoluminescent Behavior of Zinc and Cadmium Comprising of Anionic Zwitter ion of Rigid 4,5-Dicarboxy-1,3-dimethyl-1H-imidazolium iodide

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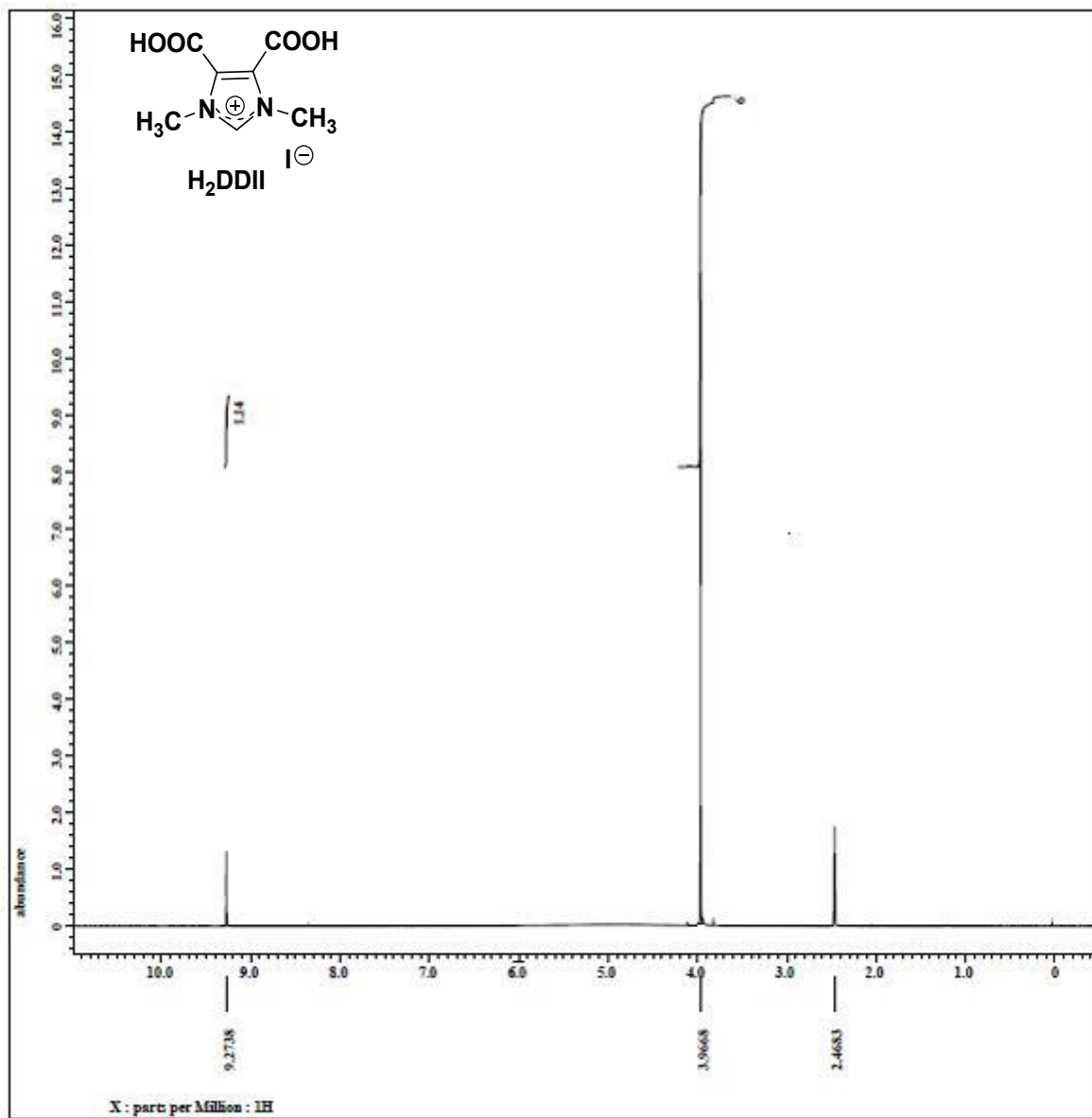


Figure S1. ¹H-NMR of H₂DDII recorded in DMSO-d₆

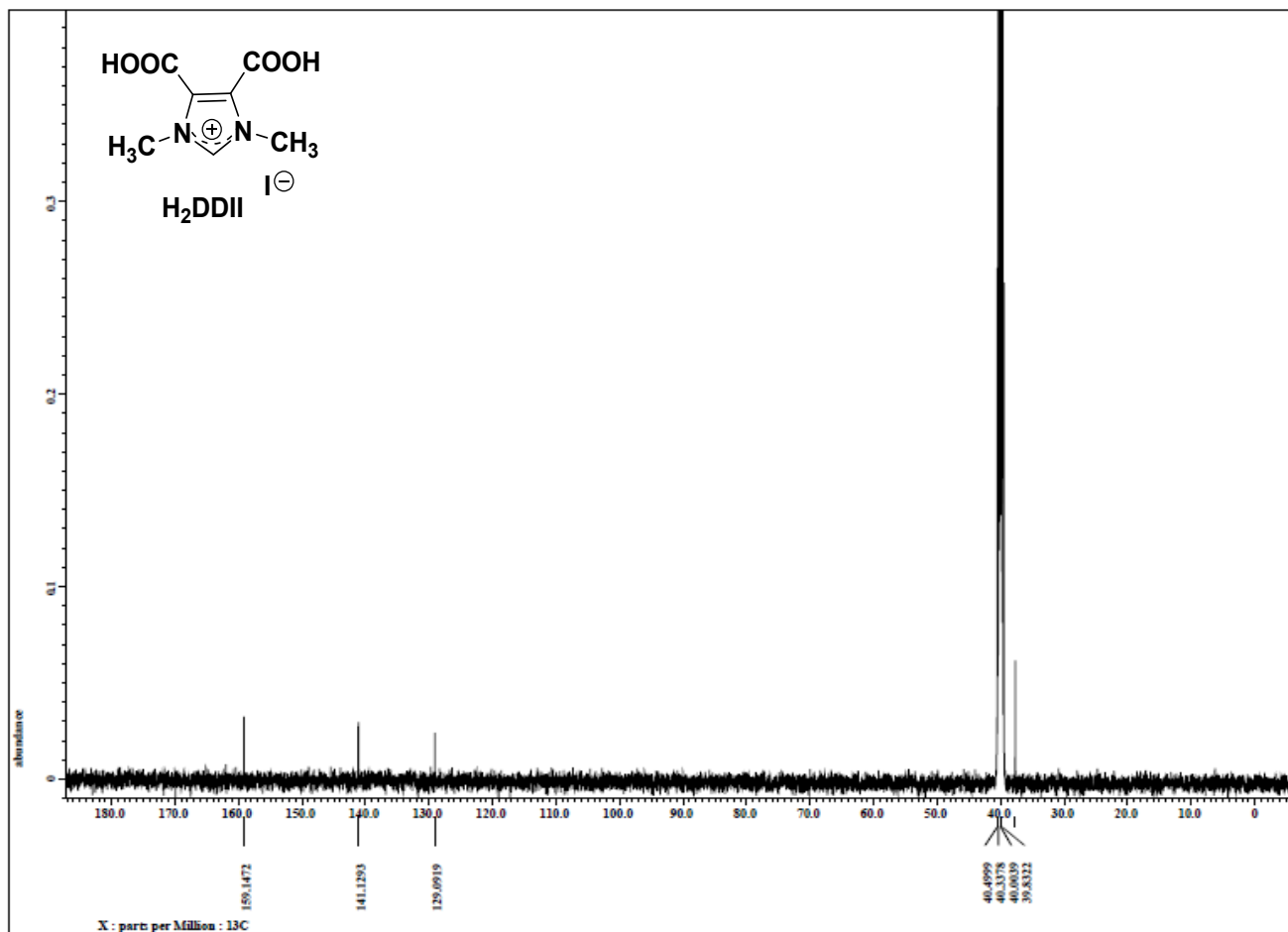


Figure S2. ^{13}C -NMR of H_2DDII recorded in DMSO-d_6

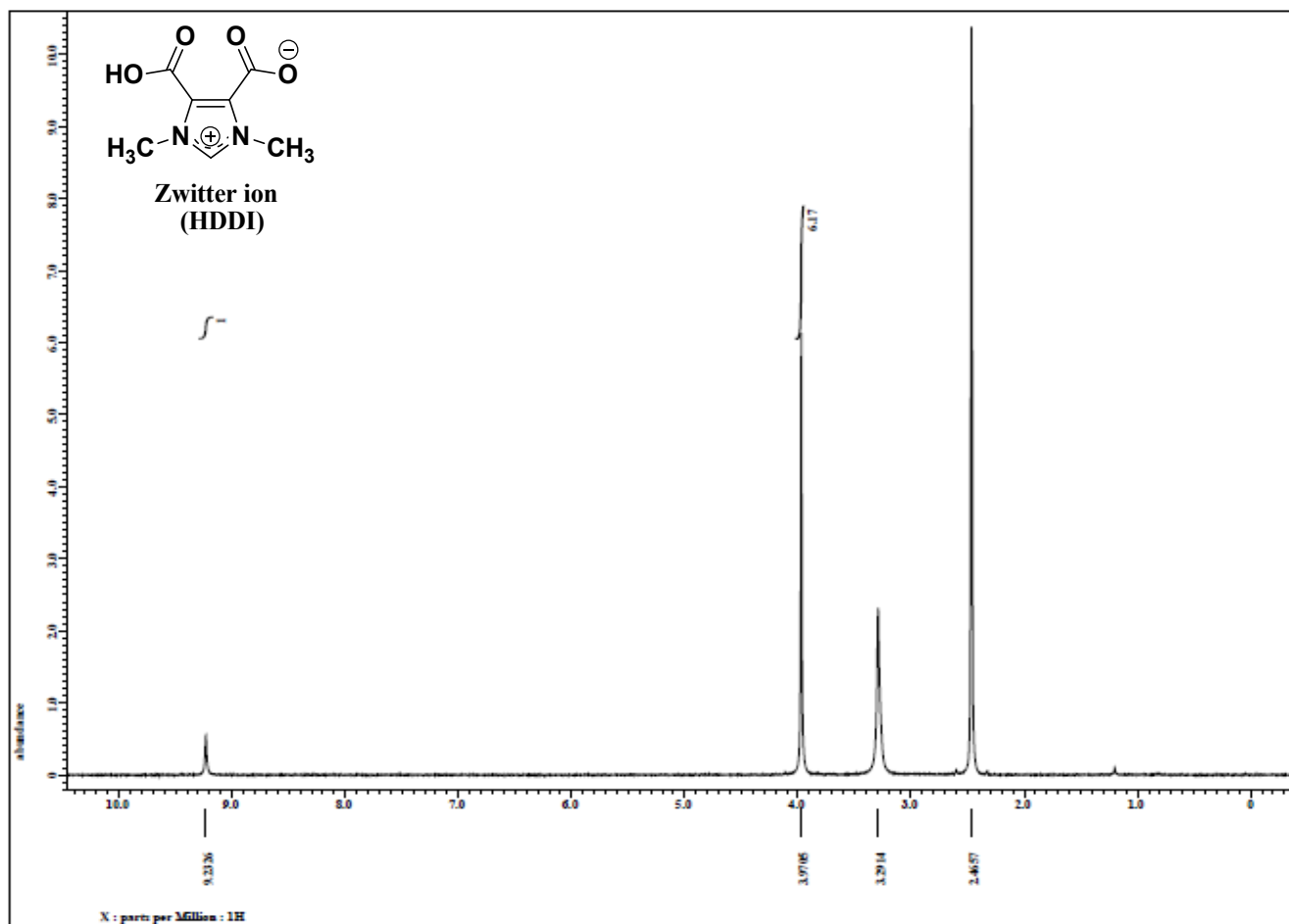


Figure S3. ¹H-NMR of HDDII (1) recorded in DMSO-d₆

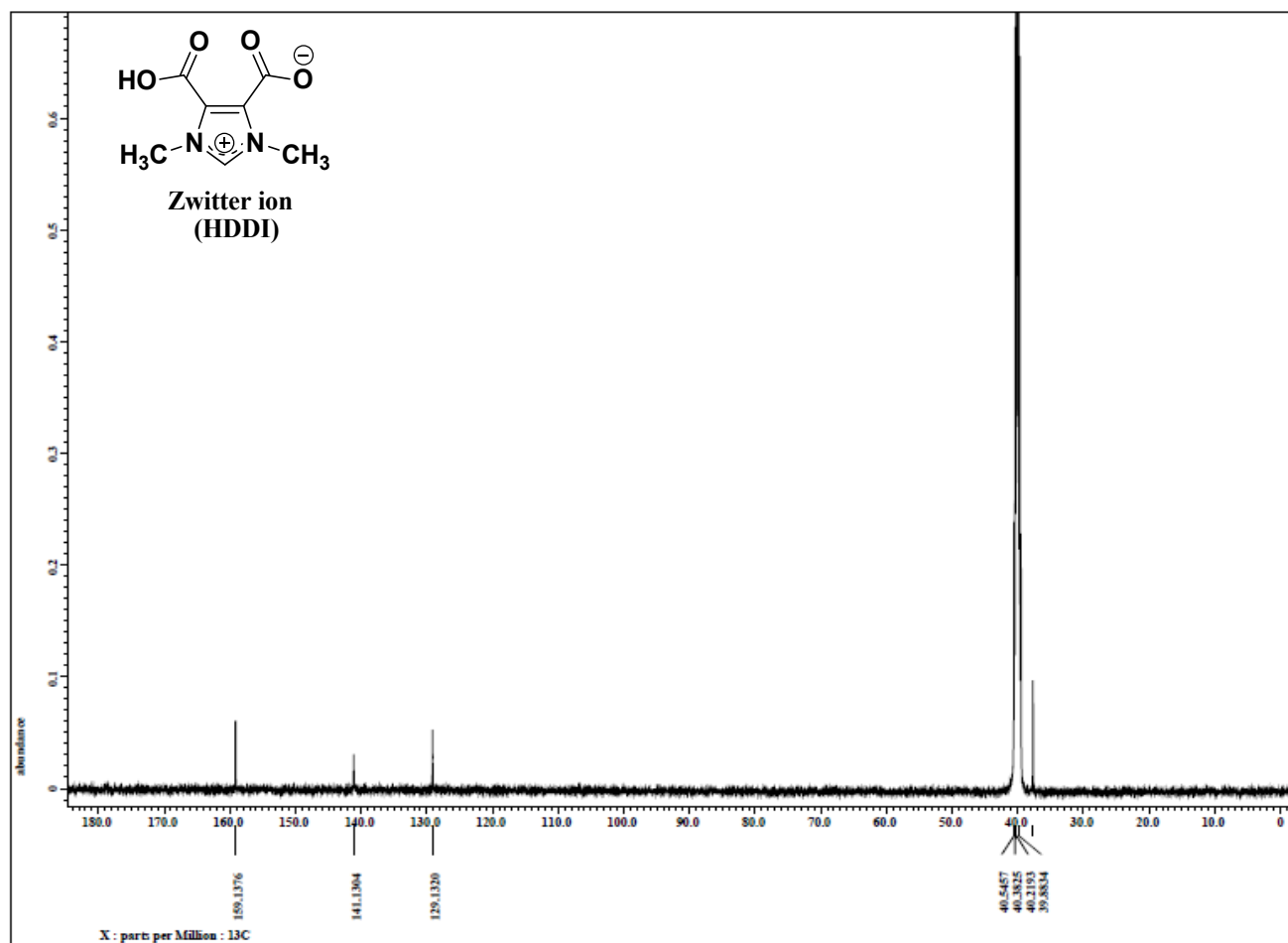


Figure S4. ^{13}C -NMR of HDDII (1) recorded in DMSO-d_6

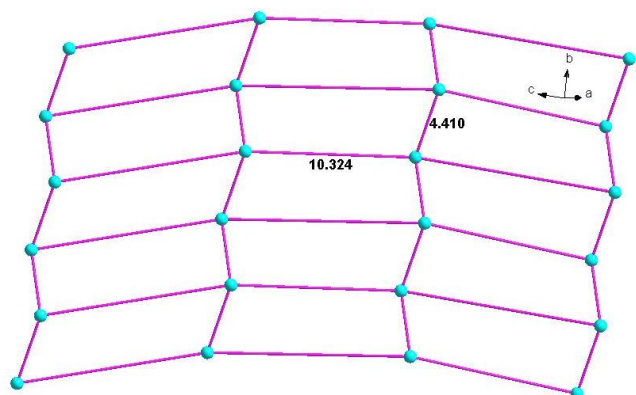


Figure S5. Distance between Zn···Zn in **2**.
between

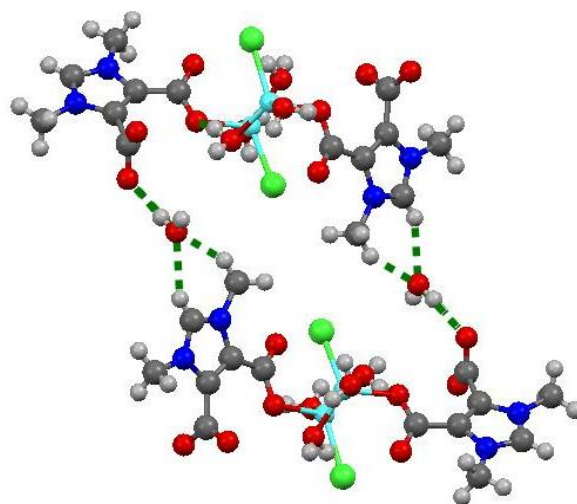


Figure S6. H-bonding interactions
lattice water molecules and two adjacent
rectangular sheets in **2**.

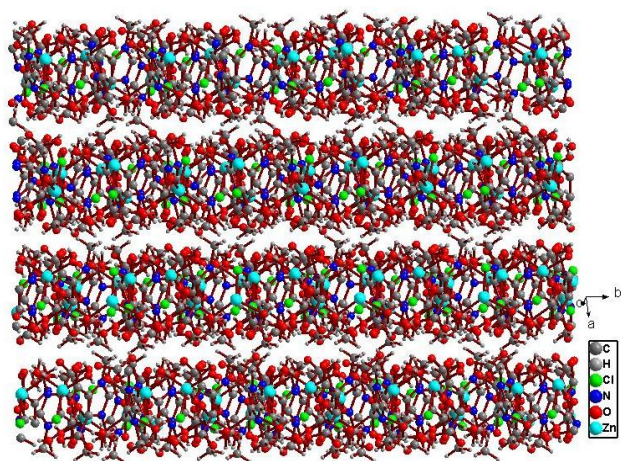


Figure S7. 3D supramolecular structure of **2**.

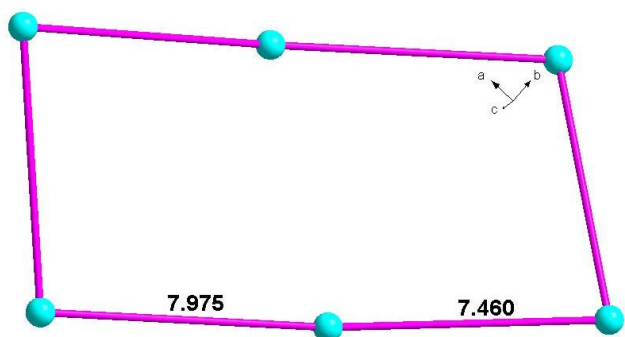


Figure S8. Distance between Zn···Zn in one macrocycle in **3**.

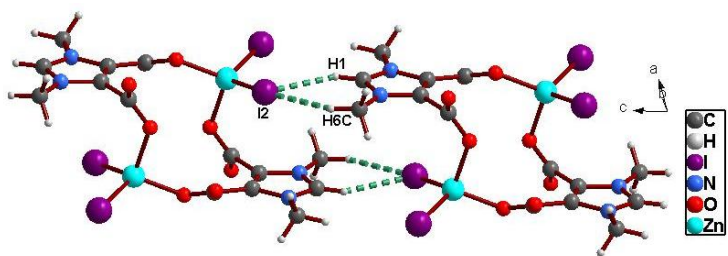


Figure S9. H-bonding interactions in 4.

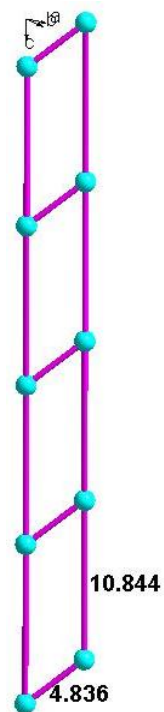


Figure S10. Distance between Zn...Zn in 4.

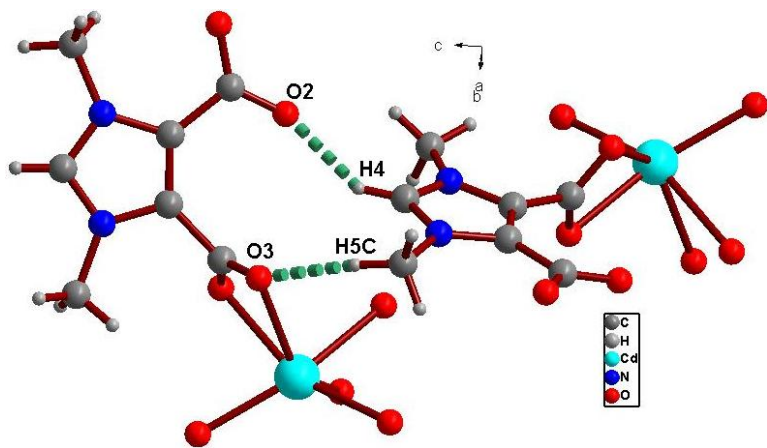


Figure S11. CH...O interaction in **6**.

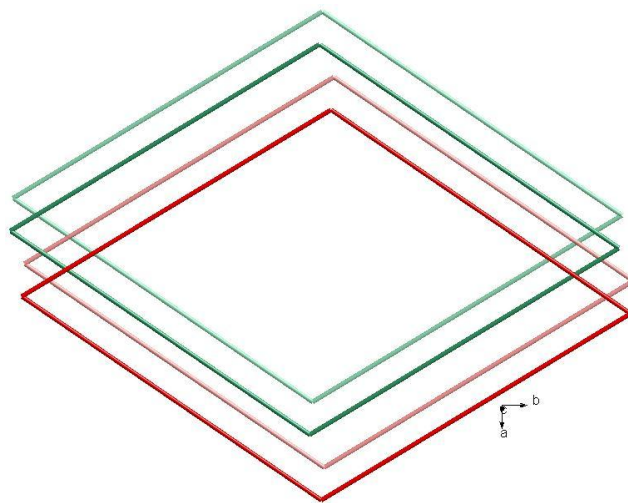
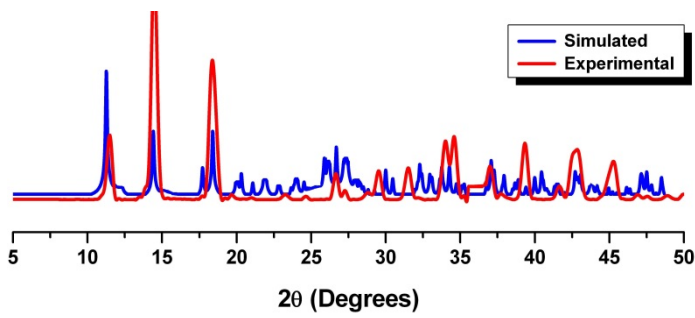
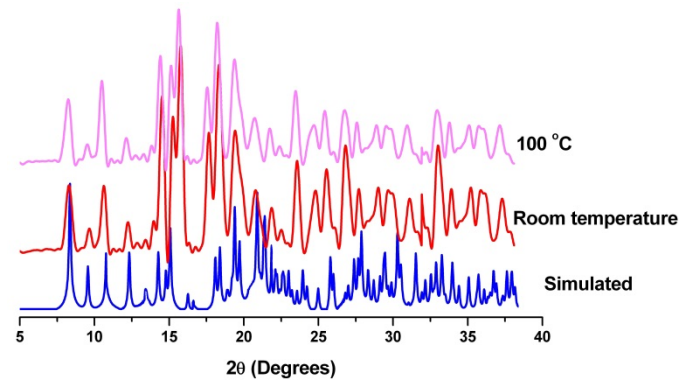


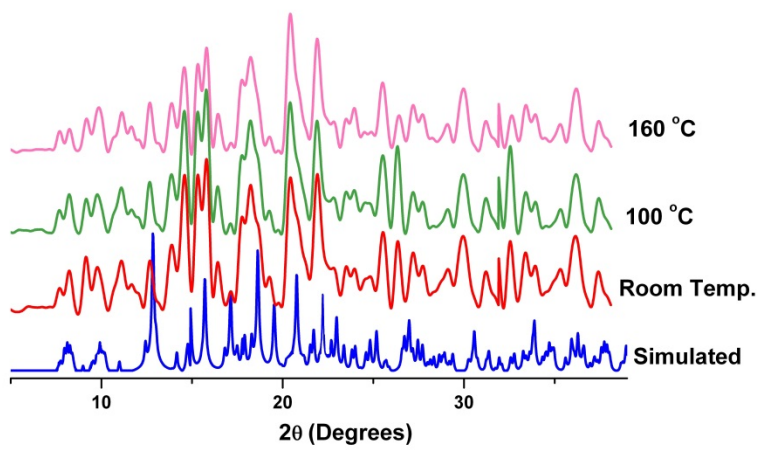
Figure S12. 3D ABAB packing fashion in **6**.



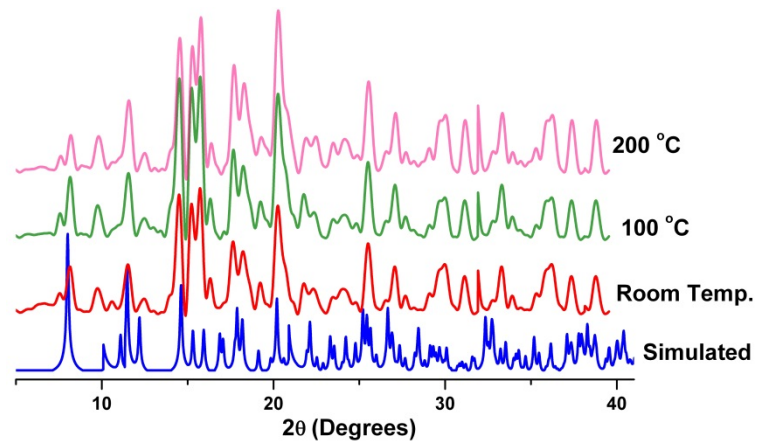
PXRD of compound 1



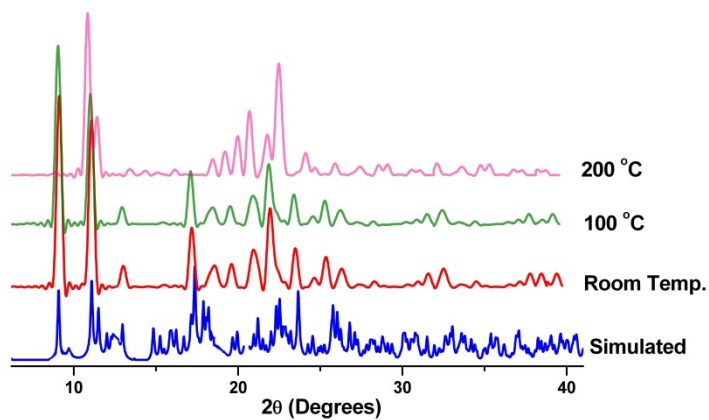
PXRD of compound 2



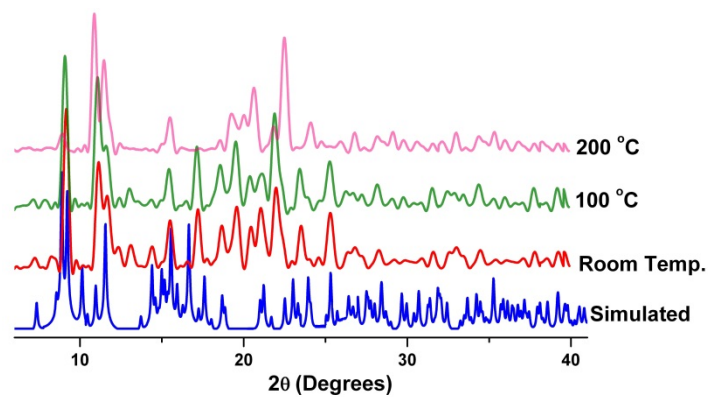
PXRD of CP 3



PXRD of compound 4



PXRD of compound 5



PXRD of CP 6

Figure S13. PXRD of compounds 1-6

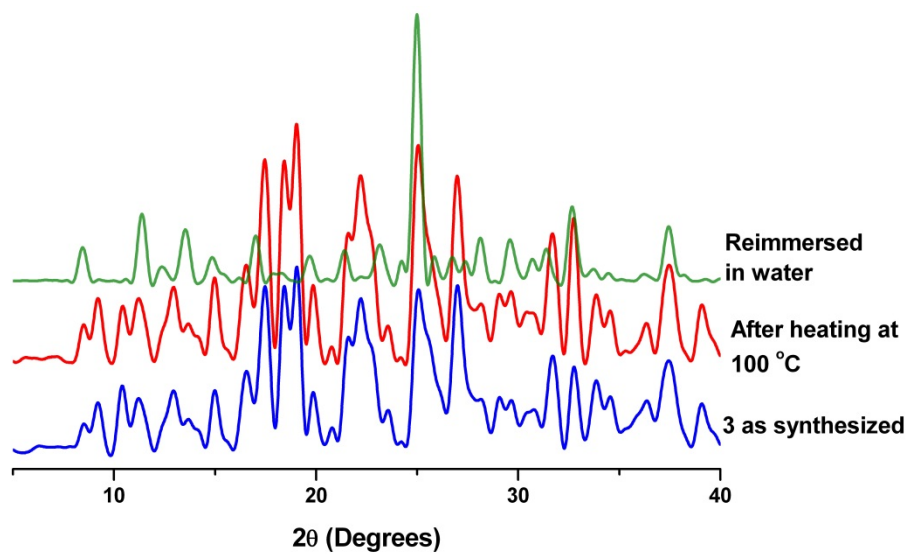


Figure S14. Irreversible water removal in CP 3