**Supporting Information** 

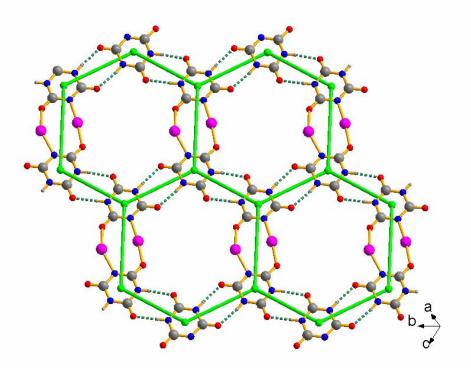
## Polycatenated 3-connected hydrogen-bonding bilayer stabilized by argentophilic interactions

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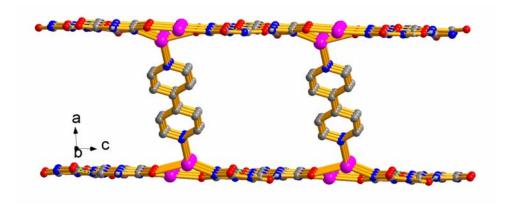
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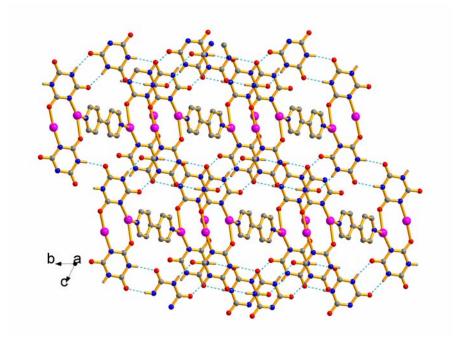
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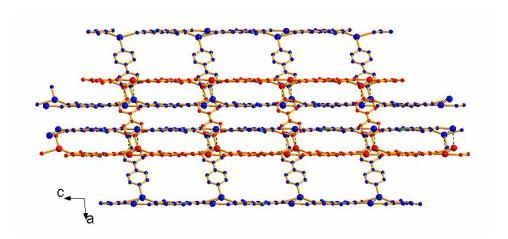
**Figure S1.** The honeycomb layer in 1.



**Figure S2.** View of the bilayer in 1 along b axis.



**Figure S3.** View of the bilayer in 1 along a axis.



**Figure S4.** View of the packing structure of 1.