

# Solid state synthesis under supramolecular control of a 2D heterotetratopic self-complementary tecton tailored to halogen bonding†

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## Electronic Supplementary Information

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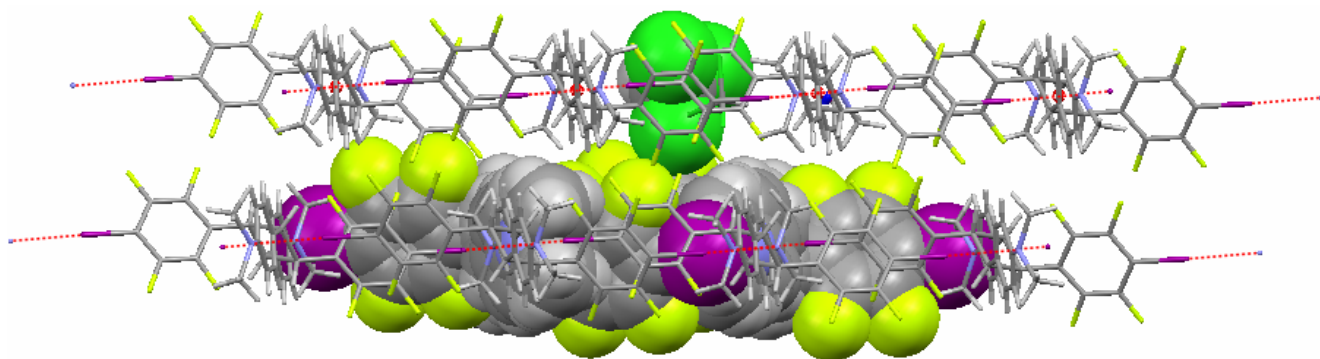
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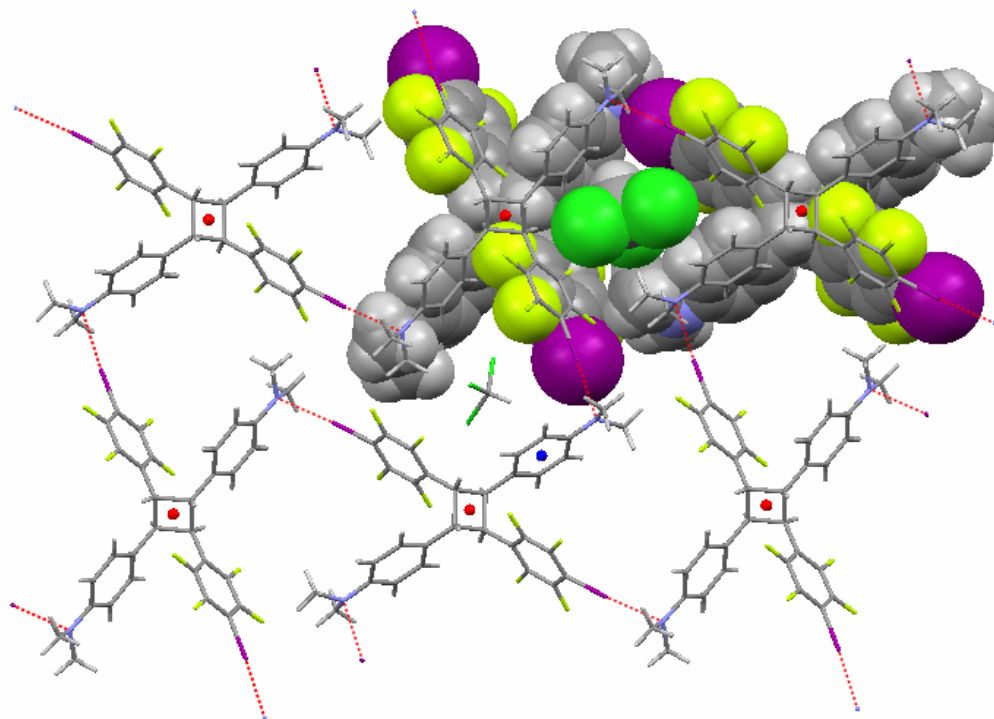
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**Fig. 6** A view down the crystallographic *b* axis of two layers of the 2D 4.4 networks present in the crystal packing of the XB-based self-complementary tecton **5**. Space filling style has been adopted to highlight clathrated chloroform. Colours are as follows: dark grey, carbon; light grey, hydrogen; blue, nitrogen; light green, fluorine; green, chlorine; purple, iodine. Halogen bonds are dotted red lines. Only one population of the two existing for the disordered chloroform molecules has been reported for the sake of clarity.



**Fig. 7** A view down the crystallographic  $a$  axis of two layers of the 2D 4.4 networks present in the crystal packing of the XB-based self-complementary tecton **5**. Space filling style has been adopted to highlight clathrated chloroform. Colours are as follows: dark grey, carbon; light grey, hydrogen; blue, nitrogen; light green, fluorine; green, chlorine; purple, iodine. Halogen bonds are dotted red lines. Only one population of the two existing for the disordered chloroform molecules has been reported for the sake of clarity. Red and dark blue circles are the centroids of cyclobutane and dimethylanilino rings, respectively.



**Fig. 8** DSC thermograph of **5** measured at 10 °C/min in the range 30-300 °C. The release of clathrated chloroform is complete at about 130 °C, while the sample melts with decomposition at 251 °C.

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