

SUPRAMOLECULAR ARCHITECTURES SUPPORTED BY CATEMERS OF 2,7-DIPYRIDYLFLUORENE WITH ORTHO-, META- OR PARA-DIIDOTETRAFLUOROBENZENE ISOMERS

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The non-covalent connection of molecules leading to supramolecular architectures is an exciting field, and the design, access and investigation of unicomponent or multiple components pure organic self-assembled “supramolecular compounds” is rapidly developing.[1] The X---N contacts were investigated in finite structures (e.g. supramolecular cages or macrocycles, [2]) or in supramolecular polymers. [3].

In this context, we considered of interest to investigate the access, structures and properties of supramolecular architectures obtained from dipyridylfluorene (1) as halogen acceptor and diiodo-tetrafluorobenzene derivatives (2a-c) as halogen donors (Chart 1). The supramolecular polymers were obtained by the solvent-drop grinding technique (SDC) starting from equimolecular amounts of 2,7-dipyridylfluorene 1 and diiodobenzene derivatives (2a-c). Suitable crystals of the polymers for X-ray diffractometry measurements were obtained by slow evaporation of the solvent. Powder X-ray diffractometry revealed the equivalence of the single crystals and of the isolated products in each reaction.

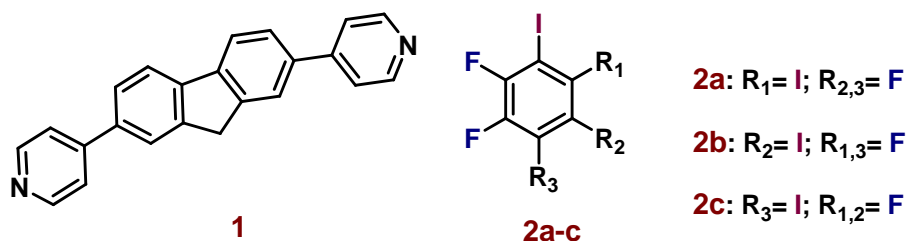


Chart 1. Building blocks used for construction of supramolecular architectures through halogen bonding

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