Synthesis, electronic properties and packing modes of conjugated systems based on 2,5-di(cyanovinyl)furan or thiophene and imino-perfluorophenyl moieties

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Résumé en anglais	The synthesis, the electronic properties and the solid state arrangements of conjugated systems associating pentafluorophenyl units linked via azomethine bonds to a central 2,5-di(cyanovinyl)-thiophene or furan moieties have been investigated. The crystal structures of the two compounds are analyzed in terms of intermolecular interactions involving hydrogen and halogen bonding, pi-pi stacking and donor-acceptor interactions. Both structures reveal similar pi-stacking of the molecules with nevertheless a more compact packing mode for the furan derivative. Moreover this structure is stabilized by several F center dot center dot center dot F interactions between the columns of molecules. By contrast for the thiophene derivative, the structure requires the insertion of CH2Cl2 to be stabilized via Cl center dot center dot center dot F interactions.
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