

Poster Presentation

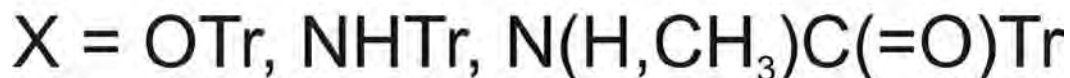
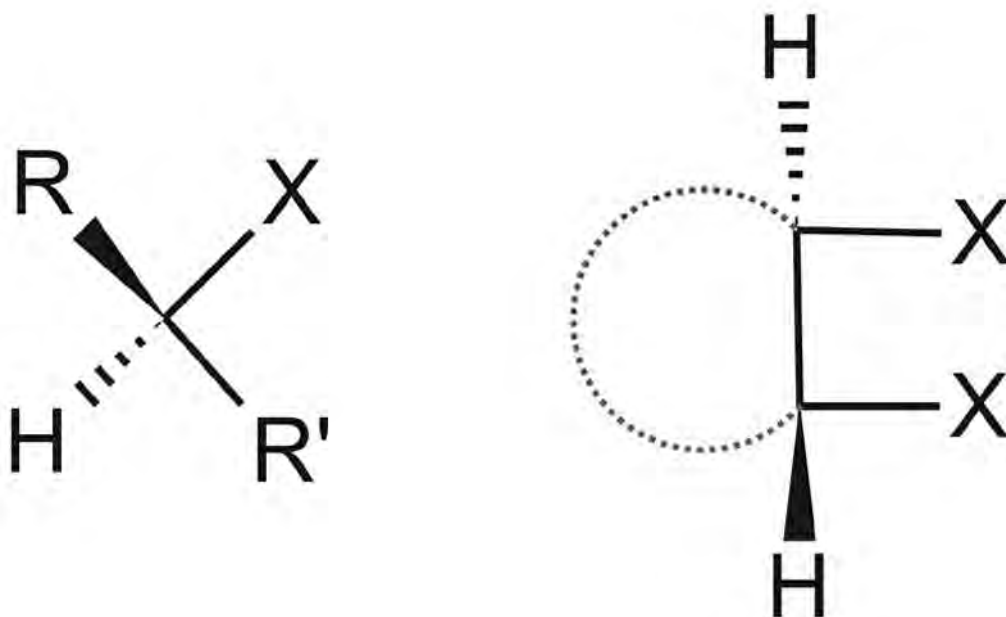
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Mono- & ditrityl ethers, amines & amides – a family of multifaceted materials

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In the course of our recent study on the possible transfer of chirality from the stereogenic center(s) to the inherently helical triphenylmethyl (Tr) substituent we have structurally characterized mono- and ditrityl derivatives of chiral alcohols, amines and amides. During the course of our investigations we have experienced various kinds of packing peculiarities caused by the presence of sterically demanding chiral molecules, e.g. quasi-isomorphism between a pair of enantiomerically pure and racemic crystals, microporosity, lattice inclusion, multiplication of asymmetric units and pseudosymmetry. The total absence of classical amide...amide hydrogen bonding and rare involvement of amine hydrogen in intermolecular hydrogen bonding opens the door to intra- and intermolecular interactions involving π -electron systems and points to the dispersion energy as the crystal structure determining factor, despite a common believe that the intermolecular hydrogen bonds are the crucial determinants of crystal packing.



Keywords: quasi-isomorphism, microporosity, inclusion