



Hybride interactions (stacking H-bonds) between molecules bearing benzyl groups.

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In this paper, the crystal structure of the 3-O-benzyl-1,2-O-isopropylidene-5,6-dideoxy- α -D-ribo-hex5-yno-1,4-furanose is presented. This is the first noticed example in which weak hydrogen bonds prevail over the π - π stacking interactions of the aromatic rings. As a result, the hybride interactions are formed by the π - σ stacking and the C-H $\cdots$ π hydrogen bonds. The analysis of molecular packing of crystal structures collected in the Cambridge Crystallographic Database shows that hybride interactions occur in infinite columns of benzyl groups or in binary complexes of organic molecules. Semiempirical calculations suggest that the π - σ stacking interactions and the C-H $\cdots$ π hydrogen bonds have a synergic character. Probably they are the key factor which stimulates the growth of crystals.

Słowa kluczowe

hydrogen bonds, stacking interactions

Adres publiczny

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