



Crystal structure of β -D-psicopyranose.

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Streszczenie

Here, we report the crystal structure of D-psicose, $C(6)H(12)O(6)$, one of the rare sugars. The compound crystallizes as the beta-anomer with rarely observed in pyranose carbohydrate structures trans-gauche orientation of the hydroxymethyl group relative to the pyranosyl ring. The crystal system is orthorhombic, space group $P2(1)2(1)2(1)$, $Z=4$, with cell dimensions $a=7.727(2)$, $b=8.672(2)$, $c=11.123(3)A$, $V=745.3(3)A(3)$. The pyranosyl ring adopts chair $(2)C(5)$ conformation. The crystal structure at 100(2)K is stabilized by three-dimensional network of O-H...O and C-H...O intermolecular hydrogen bonds.

Słowa kluczowe

d-Psicose, Rare sugars, Ketohexose, X-ray crystal structure

Adres publiczny

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