

### Crystal Structure of 1,24-Dibromotetracosane

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The crystal structure of 1,24-dibromotetracosane was analyzed by single crystal X-ray diffraction method. The compound crystallized in a monoclinic system ( $a = 5.482(3)\text{\AA}$ ,  $b = 5.381(2)\text{\AA}$ ,  $c = 43.859(2)\text{\AA}$ ,  $\beta = 93.07(2)^\circ$ ,  $Z = 2$ ) with a space group  $P2_1/c$ . The molecule is centrosymmetric and its skeleton has an all-*trans* conformation including both terminal Br atoms. In the crystal, the molecules form layers with a thickness of  $c/2$ . In the layer, the molecules inclined to the basal plane of Br atoms. The layers are arranged in a zigzag manner between the neighboring layers making a herringbone motif just like the smectic  $C_A$  structure of liquid crystals.

The molecular and crystal structures of 1,24-dibromotetracosane are similar to those of the homologs with an even number of C atoms, *vis.* 1,12-dibromododecane[1], 1,14-dibromotetradecane[2], 1,16-dibromohexadecane[3], 1,18-dibromooctadecane[4], 1,20-dibromoicosane[5], and 1,26-dibromohexacosane[6].

[1] Kulpe S., et al, *Cryst. Res. Technol.*, 1981, **30**, 349. [2] Uno K., et al, *Acta Cryst.*, 2003, **E59**, o708. [3] Kobayasi H., et al, *Cryst. Res. Technol.*, 1995, **30**, 275. [4] Nakamura N., et al, *Cryst. Res. Technol.*, 1993, **28**, 953. [5] Nakamura N., et al, *Acta Cryst.*, 2004, **E60**, o1408. [6] Takamizawa K., et al, *Eng. Sci. Rep. Kyushu Univ.*, 1992, **13**, 341.

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