In Y_3Co and Y_8Co_5 the trigonal prisms are tilted with respect to each other as in FeB, while in Y_3Co_2 and Y_4Co_3 the prism base planes are parallel as in CrB. In Y_3Co_2 and Y_4Co_3 infinite columns of prisms are formed. The change occurring from one framework to another is the side by side arrangement of the columns.

With the use of the concept of the trigonal prism linkage coefficient, it is possible to relate the stoichiometry of this type of compound to the linkage of prisms in the crystal structure. Moreover in certain cases it should be possible to predict the way the prisms are joined together from the knowledge of the composition of the alloy.

The assistance of Dr H. D. Flack with the computer programming is acknowledged.

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Fig. 3. Projection of structural units of prisms in Y_3Co_1 , Y_3Co_2 and Y_4Co_3 . The number near each corner indicates the number of lower and upper prisms which share this corner.

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The Carvoxime System. I. X-ray Study of *dl*-Carvoxime (m.p. 92°C)

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(Received 28 May 1975; accepted 28 June 1975)

dl-Carvoxime, C₁₀H₁₅NO, (m.p. 92°C) is monoclinic $P2_1/c$, with a=9.856 (3), b=11.848 (3), c=8.480 (3) Å, $\beta=98.95$ (5)°, Z=4. The structure was determined from 1767 independent intensities measured with Mo K α radiation on an automatic four-circle diffractometer and refined by a block-diagonal least-squares procedure to R=0.057. Contrary to previous expectations there is no substitutional disorder. In the crystal structure hydrogen bonding in which six-membered rings occur is found.

Introduction

Ever since its determination (Adriani, 1900) the phase diagram of the solid-liquid equilibrium in the system d-carvoxime +l-carvoxime has played a controversial role. The diagram, which is of type II according to

Roozeboom's (1891, 1899) classification, suggests a continuous series of mixed crystals in which the 1:1 (the dl) composition, has the highest melting point. The possibility of such a type of phase diagram in a system of optical antipodes was excluded by Van Laar (1908) on thermodynamic grounds, which, however,

started from an extension of the van der Waals equation of state to liquid and solid solutions.

The idea of a continuous series of mixed crystals was strengthened by crystallographic observations on d- (or l-) and dl-carvoxime. Beyer (1891) found a great similarity in axial ratios, and Oonk (1965) reported a pronounced similarity in the intensities of X-ray reflexions from d- and dl-carvoxime. These observations, with the equality of the entropies of melting (Tammann, 1914), seemed to point to a structure of dl-carvoxime in which the d- and l-molecules are randomly distributed. The geometrical similarity between the d- and the l-molecules, required for a continuous series of mixed crystals of the substitutional type, pointed to planar molecules in which the isopropenyl group is



Fig. 1. Key to the numbering of the atoms in the carvoxime molecule.

equatorially attached to the asymmetric C atom of the cyclohexene ring.

The first indications for the untenability of the solidsolution model came from a redetermination of the entropies of melting (Jacques, 1970): the entropy of melting of *d*-carvoxime, m.p. 72 °C, and that of *dl*carvoxime, m.p. 92 °C, are in the ratio of about 2:3. These observations imply that *dl*-carvoxime has to be considered a much less disordered structure than was believed in 1965.

We thus decided to make a closer study of the structural and thermodynamic properties of the carvoxime system. The present communication reports the structure of dl-carvoxime.

After completion of the determination we found that the structure had already been reported elsewhere (Baert & Fouret, 1975). In spite of this it seems worth while to present our results because differences are found between the two determinations concerning chemical formula, cell parameters and atomic coordinates.

Experimental

Crystal data

Transparent plate-like crystals were obtained by evaporation from methanol. $C_{10}H_{15}NO$, M.W. 165·23. Space group $P2_1/c$; a=9.856 (3), b=11.848 (3), c=8.480 (3) Å, $\beta=98.95$ (5)°; Z=4, V=978.2 Å³, $D_x=$ 1.122, $D_m=1.126$ g cm⁻³, μ (Mo)=0.84 cm⁻¹.

All X-ray measurements were made on an automatic four-circle diffractometer with Zr-filtered Mo radiation. Cell dimensions were determined by measurement of the θ , φ and χ values of six reflexions [there

Table 1. Atomic parameters

The e.s.d.'s are in parentheses.

				J	l ne e.s.u. s	are in paren	meses.				
(a) Heav	y atoms. F	Fractional p	parameters a	are ×10	^₄ . The ther	mal paramet	ers are in the f	form $T = \exp \left[\frac{1}{2} + $	$\left[-\frac{2\pi^2}{100}\sum_{i=1}^3\sum_{j=1}^3\right]$	$\begin{bmatrix} U_{ij}h_ih_ja_i^*a_j^* \end{bmatrix}$	
,	x	у	Z		U_{11}	U_{22}	U_{33}	U_{12}	U13	U ₂₃	
0	6636 (1)	4716 (1	5441	(2) 5	6.67 (8)	4.74 (8)	10.08 (12)	0.69 (7)	0·49 (8)	-0.38(8)	
Ň	5688 (2)	3907 (1	ú 4719	(2) 5	·21 (10)	5.19 (10)	6.95 (12)	0.73 (8)	0.61 (8)	0.15 (9)	
$\vec{\mathbf{C}}(1)$	5318 (2)	2028 (2	2) 3914	(2) 4	·72 (12)	5.87 (13)	5.38 (14)	0.60 (10)	-0.12(10)	-0.07(11)	
$\tilde{C}(2)$	6202 (2)	2910 (2	2) 4722	(2) 4	·67 (11)	4.98 (12)	5.13 (13)	0.84 (9)	0.77 (10)	0.39(10)	
$\vec{C}(\vec{3})$	7647 (2)	2617 (2	2) 5452	(2) 4	62 (12)	5.11 (12)	6.54 (15)	0.60 (10)	0.15(10)	-0.28(11)	
$\tilde{C}(4)$	7776 (2)	1403 (2	2) 6014	(2) 4	·86 (12)	5.03 (13)	6.25 (14)	1.12 (9)	-0.14(10)	-0.31(10)	
C(5)	7189 (2)	611 (2	2) 4682	(3) 5	5.96 (13)	5.10 (13)	7.04 (15)	0.76 (10)	-0.02(12)	-0.64(11)	
C(6)	5800 (2)	984 (2	2) 3870	(2) 5	5-55 (13)	6·26 (14)	6.07 (15)	-0.03(11)	-0.30(11)	-1.0/(11)	
C(7)	3912 (2)	2347 (2	2) 3073	(3) 5	5.89 (14)	8.23 (17)	8.18 (18)	0.74 (12)	-1.05(13)	-0.29(13)	
C(8)	9217 (2)	1074 (2	2) 6772	(3) 5	5.43 (13)	5.63 (13)	7.53 (16)	1.60 (11)	-0.42(11)	-1.23(12)	
C(9)	10305 (2)	1681 (2	2) 6621	(4) 5	5·62 (16)	7.42 (18)	23.06 (39)	1.40 (13)	-2.85(20)	-0.94(20)	
C(10)	9322 (3)	4 (2	2) 7668	(3) 8	3∙00 (18)	13.76 (25)	9.57 (21)	3.99 (16)	-0.36(15)	2.00 (18)	
(b) H at	(b) H atoms. Fractional parameters are $\times 10^3$.										
• •		x	у	z	<i>B</i> (Å	2)	x	У	z	$B(A^2)$	
H	(\mathbf{O})	610 (2)	527 (1)	554 (2) 6.3	H′(C7	[']) 347 (2) 172 (1)	248 (2)	7.6	
H	$\tilde{\mathbf{C}}$	797 (2)	310 (1)	633 (2) 6.3	H''(C	7) 335 (2) 259 (1)	379 (2)	7.6	
Ĥ	(C3)	826 (2)	275 (1)	456 (2) 6.3	H(Ċ9)) 1034 (2) 241 (2)	616 (2)	10-1	
Ĥ	(C4)	715(2)	130 (1)	693 (2) 6.3	H'(C9)) 1108 (2) 142 (2)	713 (2)	10.1	
H	C5	715 (2)	-12(1)	506 (2) 6.3	H(C)	0) 861 (2) -5(2)	851 (2)	10.1	
H	$\tilde{C}(C5)$	784 (2)	60 (1)	380 (2) 6.3	H'(Cl	10) 1022 (2) $-5(2)$	829 (2)	10.1	
Ĥ	(C6)	526 (2)	41 (Ì)	322 (2) 6.3	H″(C	10) 921 (2	-68(2)	674 (2)	10-1	
H	(C7)	397 (2)	294 (1)	232 (2) 7.6						

are differences of up to 0.05 Å from the data given by Baert & Fouret (1975)]. The crystal fragment used was $0.75 \times 0.60 \times 0.30$ mm.

Intensity data

The intensities were measured by the ω scan method with a scan width of $(1+0.8 \text{ tg } \theta)^\circ$. For each reflexion

the scan speed was adjusted in order to obtain a minimum of 1000 counts, provided that the scan time did not exceed 60 s. The time allotted to the measurement of the background was half that of the peak. Within the sphere of reflexion limited at $\sin \theta/\lambda = 0.65$, 8738 reflexions were measured. Intensities for equivalent reflexions of the type hkl, $h\bar{k}l$, $h\bar{k}l$ and $hk\bar{l}$

Table 2. Observed and calculated structure factors

The columns list h, $|F_0|$ and F_c . Reflexions marked with an asterisk have $I < 2.5\sigma(I)$ and were excluded from refinement.

-115 148 -56 -139 -17 -11 -11 34 2 reertseren i hingerinere i berrierte i verrierte i verrierte i verrierte i instructionere i verrierte i berreiterere i berrierte i berreiterere i berrierte i berreiterere i berreiterererererere LICOLES SA A ALTERESSIONANIA TELL A ASSENTATION AND A SOUTH AND A SOUTH AND A SOUTH AND A SUNTERS AND A POSTER AND AND AND AND AND AND AND A SUNTERSAN AND A SU 15 -21 -25 -14 -78 15. 10. 10. -37 1511-0060 536732069855522321725 10210-2045 320 R0 16A 55 57 57 57 17* -71 -161 -115 -779 -446 162 -8 2101234 alleles 2 shoresh 2 shennyan 2 shennyan 2 shennyan 1 shennyan shennyan shennyan 2 sheringinarisana 2 shennyan 2 shennyana 2 shennyana 2 shennyana 2 shennyana 2 shennyana 2 shennyana 2 shennya 2 xooning to the second of the s 2844202404 RICIPERSIE U CORDERSIER CORRECTED CO 17770-7745678 43477946177877470 0170947820558644771 7755297578784874877 anivelle di Ebelenisatiane di aistellinee: di ertillinge di ettilli di tiingeneen ji ettikteeree ji teringeneen ji 48 -55 -16 -32 0123456789 1 - 237 20 17 20 41 50 64 7 35 5 567890 451 84 27 40 240 440 72 22 22 the second s 547770-2245 -52-33-151-1322-151-144-0-22 0.13.L 73 17* 77 19* 71 9* 71* 71* 71* 71* 71* 71* 10* 10* 10* 10* 11* -75 -18 -18 -18 0+1+L 72 54 769 108 18 21 15+ 15+ 34 0.2+L ئەلىغاندەر ئەلغاندەت مالىدەتغاغاندەلى مەلمەتغاندە بەلغاندە بەلغاندەت تەلىنادەغاغدە مائىدىغانغە غاندەندە سەلىدە تەلمەلغاندە ئەلغاندەت مالىدەتغاغاندە بەلغاندەت بەلغاندە بەلغانغان بەلغاندە ئەلغاندەغاغدە مالىدە، مالىدە بەلغاندە 17710177 0561707.4K -75 399 70 1059 -19 -19 -20 33 24242220-2042 1214547890 639 R 62 1 5 6 7 69 7 ************ או שיבייריאי איראירי או איריאין אופאריאל אופאריאיני איראיין אואיראיין אואיראיין איראיין א -------22 -12 8-274 412,20-22 ************* 1008 014 0 02 2 18 8 1 50 91 - 01 0 4 7 4 7 50 91 3-227 2 475 10888 55 1240 0.15.LL 40 80 1.0.LL 1.0.L 10741147 41140002 0. 7471717710007 1 4 701717400717470 0. 770 1477 54 14 14 14/11/20441141 0. 710 ł 8-11.45 67 80 0 32 652 -12 652 -12 -11 111111004680 ** 12220-224 14 -5 -917 -478 -50 -54 -54 9#76541710-23456780 0#765437-0-23456780 8765477-0-2345678 8765417-0-2345678 -----4745432-101234547 76543210123456 644321012345 --------9=7-65-457-101-27-45-67.89 9-87-4-5-4-57-101-27-4-5678 94794547747017345478 9879454771012745678 876574101274012745678 87654374101274567 211,555514444 - 5488 3424444444 - 45554444 - 45554454 - 5484444 - 54844444 ----987556721032345678 5417-10173 57-1012 0854-707.65 -11 -11 -15 -30 -30 -10 -11 +15 098745472201734567800 1111111111 1758804211 -1074708221 -111072123884840848 -22884845 -131544995041467569 -00435318443382 4 1 6 100R7 A54321013345878910 109R7455432101334567891 011114567400 17 15 177 70173 45 67 1277755888848482 11573528782857598 1070871897157 55218884888 81291847 VE288 -1103925365 --------110 60-777471047209757174545 198745637101236567891 אבייטיטיער אינגער אייני איינין אייטיאניגעראינער אייני אייטאניגעראיגעראיין אייניאיין אייניאיין אייניאיין אייניאי 10-1-4 4 4 97 68 9 35 4 4 7 5 7 4 01234547890 A7654721012345678 ***************** --------+5472101014 +7330175 A 7 145 17 4 53 455 14 M3 1 - 11 1 A 20 14 1-7 3 14 11 - 7 11 - 7 23 4 20 4 7 28 94745452101234567 94745432101234467 1-976547710-1774567800 7+ 61 47 7+ 14+ 14+ 14+ 121 45 67 8 9 -1565130470956000467 8795432-01234567 10 874543710123454789 15747547747 0171456780 22 0.0.L 112 139 144 122 00 110 110 110 1987 65432101274567890 117 -) 78 146 -174 -8 -4 -4 -5 10.44707448 24547770-27450 6547770-2745 547 51175-1173405524 -----9 *** *** ********* -2464727897985 -2-1-22-12-37671222 1 40 2 7 9 4 8 0 4 7 7 - - - 1 5 4 5 2 7 6 1 2 6 7 - 1 8 1 7 6 6 3 7 - 1 8 1 7 6 7 1 4 7 7 - 1 8 1 7 6 7 1 4 7 7 -2 0 3 2 0 4 5 3 3 1 2 4 2 4 3 765472102274567 A +10+L 47 24 14 14 14 13 13 19 987654371012345478 \$755 <u>437</u>70-23456 8114767519 5432101214 327018 -11 -29 -31 -32 -10 -22 +17 7. 05.000 1812420146770 6824644440000000 6 -2-3 -3-3 -465 -2-3 -465 -2-46 -376 -376 157453044697894 45 #77-0-N1456 -210 -217 -217 111 105 288 288 27 174 109 819 -719-115-5114 103 -278 -190 -257 -157 87654777 -131-512-62 24242 3+13+L A.17.L 1 + 20 -9 *** 50 -5 1.13.6 -41 5 -48 16 \$1ª

Table 2 (cont.)

A. 6.1 9.2.6 15* 27 0* 27 6* 37 11* 22 14* 10* 21 14* 14* 45 16* 7* 25 -11 5263634 17 21 27 40 3 46 23• 22• -24 472-0-2345 151 4 1 1 95 4 5 4 5 4 2423527 355 ------17770-23 % -19 -11 -13 -17 -13 ţ, 190 87 654 PR-0-10 0 0 0 0°24 9°13 131 19°4 17 22 22 ************* -377336158 -41619426 -41619426 ****** 28712512952641 ********** 8+3+6 8+10+L 175179440028 #217 0* 19* 19* 22* 20* 14* #74543210123456 4777012 -167 21853 S 12 5 1 2 4 12.0.L 447-4745459520-10-5432-0220 \$474547270-N34547 25 8 9 0 5 5 1 7 7 10875179755778811+ 98765477-0-RF+547 24* 31 18* 29* 9+10+L 1202 51 55 0 -33 47778-1774 20070 6547210123 0* 14* 15* 12* 13* 13* 333 43* 7 0 1 1 4 1 9 0 4 1 1 7 4 5 7654771012745 200 10.8.L 50 100 80 210 00 210 00 210 10.9.L 10.9.L 17+1+L 10+ 17+ 21+ 0+ .0+ 27+ 35 20+ 12+2+L 18 93 126 -37 -85 -52 ******** 54777 and 8.11.L 12411545 10+++,L 18++ 4-1 5-5 10+5 10.0.L 0* 21* 27 25 22 15* 0* -24222199 1 12 ----444004 745472101204 0* 7* 40 57 74 18* 75 -7871716 7454721012345 876547710777456 11+4+L 8* 19* 32 18* 39 0* 0* 0* 0* 0174 4 A 9 10 9 4 4 A 1654727012145 ********* 2.2.3.1.3.1.4.9.1 14 7* 0* 10* 17* 14* 98765432101234567 9876Y 477-0-28456 9+12+L 16* 17* 22* 52 16* 11*0*L 32 41 27 37 21* 0* 31*1*L 547270-3 10+1+L -1 9474547710-N 74547 54131758157464899 707 444 495 35 37 249 67 64 66 56 54 74547278787 20114 367 50 2717 87654721012745 164Nov10 -450 8334 717 -24 -17 -52 -18 -17 -15 15 17 12 1 -4 22 705477101004 647024 254379-1 -1579410422564 12.3.6 11.5.6 -14 -31 -31 -11 -31 -27 -26 -22 -34 -17 14+ 24 29 10+ 28 112127 5437-012 48 14 00 19 19 16 19 2912-2452 876543210123456 45477101214 31257 - 1251 76547270-274 876543210123456 117 1207 45 00 18 5 0 9 1 4 3° 15° 239 110° 230° 5338° 12.4.1 12.4. A. 19. 13. 14. 47270 7024540454875 7654321017345 11+6+L 7* 0* 20* 0* 7* 15* 0* -12-15-10 17. 11. 11. 22. 00 25. 102. 83. 54. 87. 81. 18. 770709888888873 2 -51 -33 -5 17 -18 17 38 ************ 547710-2 ********** 10 15 7 47 5 12.5.L 18 20 10 10 14 44 ******* 1.5. \$15470. 74 11 74 5 13 5 -? -16 9.5.4 25 31 56 21 30 51 -7 11+2+6 -7-6 -! 11+7+6 - 5 - 6 0* 5* ? -4 22

were averaged and their statistical standard deviation reduced accordingly. Of the 2245 independent reflexions 1767 had $I > 2.5\sigma(I)$ and were used for the structure determination. The data were corrected for the LP factor but not for absorption.

Structure determination

All calculations were performed with a version of the X-RAY System (Stewart, Kruger, Ammon, Dickinson & Hall, 1972) extended and implemented by the Dutch X-RAY System Group. The structure was solved with *MULTAN* (Main, Woolfson & Germain,

Fig. 2. Projection of the structure along **b**. Of the H atoms only that of the oxime group is depicted.

1971). All H atoms were located from a difference synthesis. Scattering factors for O, N and C were taken from Cromer & Mann (1968), and for H from Stewart, Davidson & Simpson (1965). After block-diagonal least-squares refinement $[w^{-1}=\sigma^2(F)]$ of coordinates and the heavy-atom anisotropic thermal parameters R was 0.057 ($R_w=0.046$). The isotropic temperature factor of each H atom was kept constant at the value corresponding to that of the atom to which it is attached. The ratio of largest shift in the last cycle to standard deviation amounts to 0.6 for the heavy and to 1.0 for the H atoms. The final parameters are in Table 1. Observed and calculated structure factors are in Table 2.

Discussion of the structure

The geometry of the molecule can be inferred from Fig. 1 and Table 3. The isopropenyl group is equatorially attached to the cyclohexene ring, as was expected; it exhibits very high thermal motion. Nevertheless there is no rotational disorder of the H atoms of the methyl group. The same holds for the methyl group at the 1 position. In view of the scope of the present investigation it is important to note that positional disorder in the structure of this crystal is out of the question. Fig. 2 shows the projection of the structure down b. The oxime group H atom [overlooked by Baert & Fouret (1975)] is involved in hydrogen bonding $(r_0 \dots N)$ =2.798 Å): d- and l-molecules form dimers by hydrogen bonding across the centre of symmetry. This kind of hydrogen bonding in which six-membered rings occur which are planar within experimental error, is shown in Fig. 3. It is noteworthy that the geometry of the H-bonded system is very like that of the most stable H-bonded dimers (NH₂OH)₂ found by

Table 3.	Bond	lengths (Å) and bond angles (°)	
	with	e.s.d.'s in parentheses	

$\begin{array}{l} NO\\ C(2)-N\\ C(1)-C(2)\\ C(2)-C(3)\\ C(3)-C(4)\\ C(4)-C(5)\\ C(5)-C(6)\\ C(1)-C(7)\\ C(4)-C(8)\\ C(8)-C(9)\\ C(8)-C(10)\\ C(8)-C(10) \end{array}$	1.410 (2) 1.286 (2) 1.460 (3) 1.503 (3) 1.514 (3) 1.513 (3) 1.501 (3) 1.505 (3) 1.515 (3) 1.314 (3) 1.474 (4)	$\begin{array}{c} O N - \\ N - C(2) \\ N - C(2) \\ C(1) - C(2) \\ C(2) - C(3) \\ C(3) - C(4) \\ C(4) - C(5) \\ C(5) - C(6) \\ C(6) - C(1) \\ C(6) - C(1) \\ C(6) - C(1) \\ C(6) - C(1) \\ C(5) - C(4) \\ C(5) - C(4) \\ C(4) - C(8) \\ C(4) - C(8) \\ C(9) - C(8) \\ C(9) - C(8) \end{array}$	-C(2) -C(1) -C(3) -C(3) -C(4) -C(5) -C(6) -C(1) -C(2) -C(7) -C(7) -C(7) -C(8) -C(8) -C(8) -C(9) -C(10) -C(10)	$\begin{array}{c} 112 \cdot 9 \ (1) \\ 116 \cdot 8 \ (2) \\ 124 \cdot 1 \ (2) \\ 119 \cdot 1 \ (2) \\ 119 \cdot 1 \ (2) \\ 110 \cdot 5 \ (2) \\ 112 \cdot 1 \ (2) \\ 112 \cdot 1 \ (2) \\ 124 \cdot 5 \ (2) \\ 112 \cdot 4 \ (2) \\ 121 \cdot 8 \ (2) \\ 113 \cdot 9 \ (2) \\ 112 \cdot 4 \ (2) \\ 112 \cdot 4 \ (2) \\ 112 \cdot 9 \ (2) \\ 112 \cdot 2 \cdot 9 \ (2) \\ 115 \cdot 2 \ (2) \\ 121 \cdot 8 \ (2) \end{array}$
DH(O) C(3)-H(C3) C(3)-H'(C3) C(4)-H(C4) C(5)-H(C5) C(5)-H'(C5) C(6)-H(C6) C(7)-H(C7)	0.85 (2) 0.95 (2) 1.05 (2) 1.07 (2) 0.93 (2) 1.06 (2) 0.98 (2) 0.96 (2)	C(7)—H C(7)—H C(9)—H C(9)—H C(10)-H C(10)-H	H'(C7) H''(C7) H(C9) H'(C9) H(C10) H'(C10) H'(C10) H''(C10)	0.96 (2) 0.93 (2) 0.95 (2) 0.87 (2) 1.07 (2) 0.96 (2) 1.12 (2)
$\begin{array}{c} H(0) \\ H($	$\begin{array}{c} 0) & O \\ \hline C3) & C(3) \\ \hline C4) & C(4) \\ \hline C(4) \\ \hline C(4) \\ \hline C(4) \\ \hline C(5) \\ \hline C(7) \\ \hline$	$\begin{array}{c} -N \\ -C(2) \\ -C(4) \\ -H'(C3) \\ -C(2) \\ -C(4) \\ -C(3) \\ -C(5) \\ -C(8) \\ -C(6) \\ -C(6) \\ -C(6) \\ -C(6) \\ -C(6) \\ -C(6) \\ -C(1) \\ -C(1) \\ -H'(C7) \\ -C(1) \\ -C(8) \\ -H'(C10) \\ -C(8) \\ -C(8) \\ -H'(C10) \\ -C(8) \\ -C(8) \\ -C(8) \\ -H'(C10) \\ -C(8) \\$	$\begin{array}{c} 101 \ (1) \\ 111 \ (1) \\ 109 \ (1) \\ 108 \ (1) \\ 100 \ (1) \\ 100 \ (1) \\ 100 \ (1) \\ 100 \ (1) \\ 100 \ (1) \\ 100 \ (1) \\ 100 \ (1) \\ 100 \ (1) \\ 100 \ (1) \\ 100 \ (1) \\ 100 \ (2) \\ 111 \ (1) \\ 108 \ (2) \\ 111 \ (1) \\ 108 \ (2) \\ 111 \ (1) \\ 108 \ (2) \\ 111 \ (1) \\ 108 \ (2) \\ 111 \ (1) \\ 108 \ (2) \\ 111 \ (1) \\ 108 \ (2) \\ 111 \ (1) \\ 109 \ (2) \\ 111 \ (1) \\ 100 \ (2) \\ 111 \ (1) \\ 100 \ (2) \\ 111 \ (1) \\ 100 \ (2) \\ 111 \ (1) \\ 100 \ (2) \\ 111 \ (1) \\ 100 \ (2) \\ 111 \ (1) \\ 100 \ (2) \\ 111 \ (1) \\ 100 \ (2) \\ 111 \ (1) \\ 100 \ (2) \\ 111 \ (1) \\ 100 \ (2) \\ 111 \ (1) \\ 100 \ (2) \\ 111 \ (1) \\ 100 \ (2) \\ 111 \ (1) \\ 100 \ (2) \\ 100 \ (2) \ (2) \ (1) \\ 100 \ (2) \ (2) \ (1) \\ 100 \ (2) \ (2) \ (1) \\ 100 \ (2) \ (2) \ (1) \\ 100 \ (2) \ (2) \ (1) \\ 100 \ (2) \$	

C(2)



Fig. 3. Hydrogen-bonded system in the structure of *dl*-carvoxime. Distances are in Å, angles in degrees.

model calculations (Del Bene, 1972): $r_{0...N} = 2.78$ Å, N-H···O=154°. No other molecular contacts of particular interest are present.

Our thanks are due to Drs A. J. M. Duisenberg and G. Roelofsen for assistance.

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