2.34, 2.70, and 3.54 Å. are not compatible with any cyclic model having D_{3h} symmetry. The bond distances in one cyclic model are indicated by vertical lines under the radial distribution curve; other cyclic models disagree with the curve to about the same extent or to a greater extent. Also the theoretical intensity curves for cyclic models are incompatible with the observed pattern.

We have succeeded in finding a model for hexafluoropropene which gives very good agreement with the prominent peaks on the radial distribution curve. This agreement is indicated under the curve by vertical lines representing bond distances in this model. In addition the theoretical intensity curve for this model agrees qualitatively with the photographs and the average of the $s_{\text{calcd.}}/s_{\text{obs.}}$ (for eleven features which may be confidently compared) is 0.999 with an average deviation of 0.006. Further work is necessary in order to determine the accuracy with which the various parameters in the molecule can be evaluated. The identity of the compound, however, seems clearly established.

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Maxima in Vapor Pressure Curves

BY A. E. KORVEZEE AND P. DINGEMANS

Recently N. B. Keevil[1] has given the vapor pressures of aqueous solutions of a number of salts over an extensive temperature range. In case of highly soluble salts, maxima occur in the vapor pressure curves and the author stresses the point that the maxima lie at increasing temperatures with increasing melting point of the salts.

We have found analogous results for a series of salts with lower melting points. Moreover we have derived[2] the approximate expression

$$\frac{1}{T_{\max}} = \frac{1}{T_s} + 0.00021.$$

T_s = melting point of the sale (absolute temperature)
$T_{\max}$ = absolute temperature of the maximum.

This expression is derived for ideal solutions, but it proves to give also fairly trustworthy results for the temperature of the pressure maxima even for our saturated salt solutions. The relation given is also valid for vapor pressure curves of solutions saturated with respect to two or more salts, in which case T_s = the eutectic temperature of the salt mixture.[3] A number of examples are to be found in our publications.[4]

We have applied our formula to those of Keevil's curves, for which the temperature of the maximum and the melting point of the salt have been directly determined. The results are collected in Table I.

TABLE I

Salt	Melting point, °C.	Temperature of the maximum, °C. measured	Temperature of the maximum, °C. calculated
NaCl	804	600	606
NaBr	755	570	573
KCl	770	565	582

From the figures given it is clear that a fairly accurate estimation of the temperature of the maximum in the vapor pressure curve can be derived from melting point data with the aid of our formula.

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[1] N. B. Keevil, THIS JOURNAL, **64**, 841 (1942).

[2] A. E. Korvezee and P. Dingemans, *Rec. trav. chim.*, **62**, 653 (1943).

[3] A. E. Korvezee, P. Dingemans and L. L. Dijkgraaf, *ibid.*, **66**, 389 (1947); A. E. Korvezee, *ibid.*, **66**, 549 (1947).

[4] P. Dingemans, *et al.*, *Rec. trav. chim.*, **56**, 839 (1937); **58**, 574 (1939); **60**, 317 (1941); **61**, 605 (1942); **62**, 85 (1943); **62**, 625 and 639 (1943); **64**, 194 and 199 (1945); **65**, 477 (1946); **66**, 239 (1947).

CHEMICAL LABORATORY OF THE TECHNICAL UNIVERSITY
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The Preparation of Allyl Iodide[1]

BY R. L. LETSINGER AND JAMES G. TRAYNHAM

Reported methods for the preparation of allyl iodide involve the reaction of allyl alcohol or glycerol with either hydriodic acid or phosphorus and iodine.[2] We find that preparative quantities of allyl iodide may be obtained very conveniently by the action of sodium iodide on allyl chloride in acetone. This preparation is based on a reaction investigated kinetically by Conant, Kirner and Hussey.[3]

A mixture made of 0.6 mole (45.9 g.) of allyl chloride, 0.75 mole (113 g.) of sodium iodide, and 100 cc. of acetone was warmed on the steam-bath for three hours and then poured into 500 cc. of water. The organic layer was separated, washed with both a dilute sodium bisulfite solution and with water, dried over sodium sulfate, and distilled. The yield of allyl iodide (b. p. 101–102°, d^{22}_4 1.8454, n^{22}_D 1.5542) was 63.1 g. (62.6%). When the reflux time was increased to twenty-four hours and 200 cc. of acetone was used as solvent, the yield was increased to 76.7%.

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[1] This investigation was supported by a grant from the Abbott Fund of Northwestern University.

[2] McCullough and Cortese, THIS JOURNAL, **51**, 226 (1929); Norris, Watt and Thomas, *ibid.*, **38**, 1076 (1916); Datta, *ibid.*, **36**, 1005 (1914); Tollens and Henninger, *Ann.*, **156**, 156 (1870).

[3] Conant, Kirner and Hussey, THIS JOURNAL, **47**, 488 (1925).

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Absorption Spectra of 4,6-Diamino-2-phenyl-1,3,5-triazine

BY FREDERICK C. NACHOD AND EDGAR A. STECK

Although 1,3,5-triazine derivatives have been the subject of many investigations, relatively few