

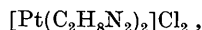
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The unit-cell dimensions of bis(ethylenediamine)platinum(II) chloride. By GEORGE W. WATT and DONALD S. KLETT, *Department of Chemistry, The University of Texas, Austin, Texas, U.S.A.*

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The interpretation of the infrared spectrum of a transition metal complex in the crystalline state requires a knowledge of the molecular symmetry of the complex in the crystal so that the selection rules can be calculated (Halford, 1946). Sometimes the necessary information can be obtained by the determination of the space group. In connection with current work on the infrared spectrum of bis(ethylenediamine)platinum(II) chloride, the present studies were initiated since the crystal structure of this complex has not been reported.

Bis(ethylenediamine)platinum(II) chloride,



was prepared from potassium tetrachloroplatinate(II), K_2PtCl_4 , and ethylenediamine, $\text{C}_2\text{H}_8\text{N}_2$ (Drew, 1932). Single crystals were grown slowly from aqueous solution. The unit-cell dimensions were determined from rotation and Weissenberg photographs using $\text{Cu } K\alpha$ radiation. The unit cell is triclinic with

$$\begin{aligned} a &= 4.937, \quad b = 8.339, \quad c = 6.881 \text{ \AA}; \\ \alpha &= 71^\circ 38', \quad \beta = 100^\circ 4', \quad \gamma = 82^\circ 00'. \end{aligned}$$

A Delaunay reduction (Delaunay, 1933) confirmed

(1) that the unit cell was triclinic, and (2) that the unit cell chosen was primitive.

The measured density (by flotation) was 2.452 g.cm^{-3} ; the calculated density, assuming one molecule per unit cell, was 2.477 g.cm^{-3} .

The morphology of a single crystal was studied by optical methods and suggested that the crystal class was triclinic-pinacoidal, and the space group therefore $P\bar{1}$; the platinum is thus probably on a center of inversion.

A complete crystal-structure analysis will be undertaken later.

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References

- DELAUNAY, B. (1933). *Z. Kristallogr.* **84**, 109.
 DREW, H. D. K. (1932). *J. Chem. Soc.*, p. 2328.
 HALFORD, R. S. (1946). *J. Chem. Phys.* **14**, 8.

Notes and News

Announcements and other items of crystallographic interest will be published under this heading at the discretion of the Editorial Board. The notes (in duplicate) should be sent to the General Secretary of the International Union of Crystallography (D. W. Smits, Mathematisch Instituut, University of Groningen, Reithdiepskade 4, Groningen, The Netherlands). Publication of an item in a particular issue cannot be guaranteed unless the draft is received 8 weeks before the date of publication.

X-ray Powder Data for Steroids

Supplement III including a 'Discussion of Steroid Nomenclature' containing photographs of powder diffraction patterns for additional steroids has been published in the Henry Ford Hospital Medical Bulletin for March

1963. Reprints may be obtained by sending requests to Jonathan Parsons, Physics Department, Edsel B. Ford Institute for Medical Research, Henry Ford Hospital, Detroit 2, Michigan. A few reprints of the earlier publications in this series are also available.