$h00 = h$ all present
$0k0 = k$ even
$00l = l$ even

The four possible space groups compatible with these reflections are D_{2h}^{19}-$Ammm$, D_2^6-$A222$, C_{2v}^{11}-$A2mm$, C_{2v}^{14}-$Amm2$ or $Am2m$.

However, further consideration of the morphological development of the crystals, as given by Fahey,[3] shows that there is a vertical 2-fold axis of symmetry. The class symbol is therefore $mm2$. This conclusion together with the above reflections leads to the space group C_{2v}^{14}-$Amm2$.

An error in transcription appears in column 5, page 288. The number of atoms of O in the unit cell should be 18.00 in place of 18.3.

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[3] Fahey, J. J., Shortite, a new carbonate of sodium and calcium: *Am. Mineral.*, **24**, 515–516 (1939).

PROCEEDINGS OF SOCIETIES

CRYSTALLOGRAPHIC SOCIETY

The second meeting of the Crystallographic Society was held April 22, 1941, in the Mineralogical Lecture Room, Harvard University, Cambridge. Thirty-one members and guests were present. Professor M. J. Buerger, Acting President, spoke briefly of the purposes of the organization. The meeting was then addressed by Dr. I. Fankuchen on the topic "Preparation and Handling of Small Crystals." Instruments used in the growth and manipulation of micro-crystals and mounted micro-crystals of proteins were exhibited. In the ensuing discussion, special techniques used at the Massachusetts Institute of Technology and at Harvard University in handling minute crystals for *x*-ray and goniometric examination were described.

C. FRONDEL, *Acting Secretary*

PHILADELPHIA MINERALOGICAL SOCIETY

The Academy of Natural Sciences of Philadelphia, May 1, 1941

Dr. Thomas presided, with 69 members and visitors present. Mr. Harold D. Feuer addressed the society on "Buying Gem-stones in Foreign Markets." His reminiscences described experiences in Brazil and Ceylon.

Meeting of June 5, 1941

Dr. Thomas presided, with 60 members and visitors present. The evening was devoted to the commemoration of the Twenty-fifth Anniversary of the issue of the first number (July, 1916) of *The American Mineralogist*. The thought to establish this magazine was conceived by Samuel G. Gordon, then secretary of the Philadelphia Mineralogical Society, who had in mind a revival of the old *Mineral Collector* (1894–1909). To secure the support of amateur mineralogists an editorial board was set up of Wallace Goold Levison, secretary of the New York Mineralogical Club, Mr. W. Scott Lewis of the Mineral Collectors Association, and Dr. Edgar T. Wherry and Mr. Samuel G. Gordon of the Philadelphia Mineralogical Society. Dr. Levison was appointed editor, but the actual editorial work, as well as formulation of policy fell to Dr. Wherry, who became editor in title on the retirement of Dr. Levison in 1919. Mr. Robert Rosenbaum was the first business manager, but his studies prevented his continuing the work, and Mr. Harry W. Trudell assumed the position with the beginning of the second volume. Through circularization, an advance subscription fund was obtained, but loans to the magazine were made by Dr. Wherry, and Messrs. Trudell and Gordon. The actual work thus devolved upon these three: Dr. Wherry edited the magazine, Mr. Trudell handled all business affairs, and Mr. Gordon kept the stock, and mailed out the journal. However, generous money contributions from Col. Washington A. Roebling, Col. William Boyce Thompson, Mr. James G. Manchester, and George Vaux, Jr., erased the ever appearing deficit. By the end of the 4th volume, Mr. Trudell had brought it to the point where income not only balanced expenditures but with a cash balance of $381.82, in spite of the smallness of the number of subscriptions. With the organization of The Mineralogical Society of America, the magazine was taken over as its official journal with volume 5 in 1920.

Dr. Edgar T. Wherry described his early work in mineralogy, and the editorial policy of the magazine in its early days. Mr. R. B. Gage of Trenton, N. J., gave an account of the interest of Col. Washington A. Roebling in the magazine, and of his munificent endowment of it. The financial struggles were recalled by Mr. Harry W. Trudell. Mr. Gordon read a number of letters from the old files which recounted amusing experiences and letters received by the staff from subscribers, advertisers, and printers. Mr. Peter Zodac, Editor of a leading popular magazine on mineralogy, *Rocks and Minerals*, spoke on the present interest in collecting and of the support given by members of the society to his journal.

Mr. Lenker exhibited specimens of lapidary work of his students in the Radnor High School, and Mr. Hoffa exhibited some superb inlay work that he had made.

FORREST L. LENKER, *Secretary*

NEW DATA

Berlinite

H. STRUNZ: Isotypy von berlinite mit quartz. *Zeits. Krist.*, **103**, 228–229 (1941); through *Chem. Abstracts* **35**, 4315 (1941). Berlinite from Westanå, Sweden, was described by Blomstrand in 1868 as $4AlPO_4 \cdot H_2O$. Re-examination of type material confirms the validity of this mineral species and its identity with synthetic $AlPO_4$. *X*-ray study shows a hexagonal lattice with $a=4.92$, c 10.91Å., $c/a=2.217$; the unit cell contains $3(AlPO_4)$. The probable space group is $D_3^4-C3_12$ or $D_3^6-C3_22$. G.=2.64. Hardness 6–7. Optically uniaxial, positive, ω_{Na} 1.523, ϵ_{Na} 1.529.

MICHAEL FLEISCHER

Osbornite

F. A. BANNISTER: Osbornite, meteoritic titanium nitride. *Mineral. Mag.*, **26**, 36–44 (1941). Osbornite was described by Story-Maskelyne in 1870 as minute golden-yellow octahedra embedded in oldhamite (CaS) in the Bustee meteorite. Only 28 mg. was available, and from qualitative tests the mineral was believed to be an oxysulfide of Ca, Ti and/or Zr. *X*-ray study now shows osbornite to be face-centered cubic, with $a=4.235$Å. A fragment heated in the air to about 850° becomes polycrystalline and birefracting, and gives the *x*-ray pattern of rutile. Microchemical tests by M. H. Hey show the presence of Ti and the absence of Ca and S. These data indicate that osbornite is titanium nitride, TiN. Artificial TiN is face-centered cubic with $a=4.23$ Å, hardness 8–9, m.p. 3200°C., G. (calcd.)$=5.39$.

M. F.

DISCREDITED SPECIES

Stainierite, Mindigite, Trieuite (=Heterogenite)

V. Billiet and A. Vandendriessche: Les Oxydes hydrates de cobalt du Katanga. *Bull. Soc. Belge Geol.*, **49**, 63–78 (1939). *X*-ray powder pictures were made of stainerite from Kadjilangwe and Mindigi, of mindigite from Mindigi, of two samples of trieuite from the Belgian Congo, and of heterogenite from Goodsprings, Nevada. All gave the same *x*-ray pattern, differing only in that some gave weak pictures with only the strongest lines showing. An optically isotropic trieuite which gave a weak picture was recrystallized by heating in a sealed tube with water at 180°; the recrystallized material gave a sharp picture identical with those of other samples. The analyses in the literature are reviewed and the conclusion is reached that all can be represented by the formula $(Co_2O_3, CuO)\cdot H_2O$.

Discussion. The name heterogenite (Frenzel, 1872) has priority. The names stainierite (1929), mindigite (1934) and trieuite (1935) should be discarded. It seems probable that the following are also essentially heterogenite:—boodtite (*Mineral. Abs.*, **6**, 343 (1936), heubachite (also contains Ni, Dana's *System*, 6th Ed., p. 259), transvaalite (Dana's *System*, 6th Ed., p. 260), and schulzenite (Dana's *System*, 6th Ed., App. I, p. 61). It is noticeable that the samples which give the sharpest *x*-ray patterns give analyses close to $Co_2O_3\cdot H_2O$, with little CuO and excess H_2O, whereas materials which are optically isotropic and give weak *x*-ray patterns contain much CuO and excess H_2O. It would seem, therefore, that the mineral should be regarded as $Co_2O_3\cdot H_2O$ with adventitious CuO and H_2O.

M. F.