Johannite, is usually another species, and is doubtfully distinct.

Kalinite, comprises two species, and it is recommended that the name be limited to the fibrous, strongly birefringent form, the other to be called potash alum.

Knoxvillite, seems identical with copiapite.

Litharge. In announcing the recognition of two forms of lead monoxide, Larsen had suggested the name litharge for the yellow, orthorhombic form, and massicot for the red, tetragonal one. The common usage for the artificial products, as well as Dana's statements under the species massicot, suggest that this be reversed.

Lithargite. The mineralogical form of the name, preferred in this journal. Now to be defined as the red tetragonal form of PbO.

Massicot. Discussed under litharge.

Massicotite, the mineralogical form of the name, preferred in this journal. To be defined, following Dana, as the yellow orthorhombic form of PbO.

Metavoltaite, a new spelling of "metavoltine."

Montmorillonite, is variable and needs further study.

Pseudomalachite, seems identical with dihydrite.

Psittacinite, seems identical with cuprodescloizite.

Pyrrhite, may be grouped with koppite as a sub-species.

Quenstedtite, seems identical with copiapite.

Rivaite, "not very different from . . . wollastonite." (Compare Bowen, *Am. Min.* **7**, 64, 1922.)

Scorodite, in 8 specimens showed at least 4 different sets of properties and may represent as many species.

Stibiconite, varies widely and like cervantite is evidently composite.

Utahite, seems identical with jarosite. E. T. W.

ABSTRACTS—MINERALOGY

A NEW DESCRIPTION OF AMESITE. Earl V. Shannon. *Am. J. Sci.*, **49**, 96–8, 1920.

Amesite from Chester, Mass. is bluish-green in color, pearly to metallic in luster, and translucent to opaque except in thin fragments. Micaceous basal cleavage, laminae are brittle. H. 2.3, sp.gr. 2.77. Optical properties: biaxial, 2V very small, Bx_a normal to perfect cleavage, +, colorless, α 1.597, β 1.597, γ 1.612, all $\pm$ 0.003. Analysis: SiO_2 20.95, Al_2O_3 35.21, FeO 8.28, CaO 0.58, MgO 22.88, MnO trace, H_2O- 0.23, H_2O+ 13.02, sum 101.15. Formula: $2(Fe, Mg)\,O.Al_2O_3.SiO_2.2H_2O$. E. F. H.

IMMERSION METHOD FOR THE DETERMINATION OF INDICES OF REFRACTION OF SOLID BODIES. Ch. Fabry. *J. de Phys.*, **9**, 11, 1919; through *Am. J. Sci.* **49**, 148–50, 1920. Note. H. S. Uhler. *Am. J. Sci.* **49**, 143–5, 1920.

Fabry's method allows the det'n of n to the fifth decimal, and exact equality of indices of the unknown and the immersion liquid is unnecessary. A goniometer,

set of standard glass prisms, series of immersion liquids, and an immersion trough are used. A light ray passes through liquid, prism, and unknown. The method involves the finding of values of the angular deviation of the telescope and linear displacement of the ocular for several liquids of near values of n, which must approximate that of the unknown. The value of deviation which would have been observed had the n's of liquid and unknown been equal is obtained from a graph. A formula is given for the calculation of the n of the liquid (and that of the unknown). A more general formula and proof are given in Uhler's note.

E. F. H.

THE OCCURRENCE OF DYSCRASITE IN AUSTRALIA. GEO. SMITH. *Am. J. Sci.*, **49**, 278–80, 1920.

Dyscrasite has been found in the Consols Mine, Broken Hill, in large amount. Very fine arborescent crystallizations were encountered. Crystals in calcite were unterminated, prismatic; occasionally pseudo-hexagonal plates. The forms $c(001)$, $e(011)$, $z(112)$, and $s(133)$ were identified. E. F. H.

APHTHITALITE (GLASERITE) FROM SEARLES LAKE, CALIF. W. F. FOSHAG. *Am. J. Sci.*, **49**, 367–8, 1920.

This mineral was found in a well boring. It occurred in small trigonal crystals, with c and r. Optical properties: uniaxial, +, $\omega = 1.490$, $\epsilon = 1.496$, both ± 0.003. Analysis: K 32.46, Na 9.01, SO_4 53.71, Cl 4.76, H_2O 0.10, sum 100.04.

E. F. H.

NEW MINERAL NAMES. W. E. FORD. *Am. J. Sci.*, **49**, 452–3, 1920.

The following are briefly described:—bäckströmite, bismutoplagionite, cocinerite, echellite, ferrazite, gavite, manganfayalite, oruetite, pyrobelonite, sobralite, sphenomanganite, and villamaninite. E. F. H.

CONTRIBUTIONS TO CHEMICAL PETROGRAPHY. III, with an appendix. A. OSANN. vii+347 pp.; Leipzig, **1916**; thru *Mineralog. Abstr.* **1**, 399.

The appendix gives 236 analyses of rock-forming minerals (micas, amphiboles, pyroxenes, and garnets), previously published. E. F. H.

OPTICAL PROPERTIES OF ANTHOPHYLLITE. N. L. BOWEN. *J. Wash. Acad. Sci.*, **10**, 411–4, 1920.

A new det'n on anthophyllite from Franklin, N. C. gives: α 1.6195, β 1.6301, γ 1.6404; 2V 88°46′. FeO+MnO 10.70, MgO 28.69. Pure (artificial) Mg-amphibole (kupferrite) had α 1.584, γ 1.597. E. F. H.

THE NOMENCLATURE AND CLASSIFICATION OF SULFIDE MINERALS. EDGAR T. WHERRY. *J. Wash. Acad. Sci.*, **10**, 487–96, 1920.

In this classification, with the sulfides are ranged all analogous compounds such as selenides, etc., oxysulfides, nitrides, phosphides, carbides, and silicides. These are separated on the basis of metallic or non-metallic character of the more basic element concerned; then into chemical divisions depending on the ratio of basic to acidic elements present. A final sub-division into groups is made on crystallographic considerations. A consistent nomenclature is used thruout the classification. E. F. H.

THE COLORS OF COLLOIDS. WILDER D. BANCROFT. *J. Phys. Chem.*, **22**, 601–30, 1918, (I); **23**, 1–35 (II); 154–85 (III); 253–82 (IV); 289–347, (V); 356–61, (VI); 365–414, (VII); 445–68, (VIII); 554–71, (IX); 603–33, (X); 1919.

Of especial interest to mineralogists are: I, Introduction; II, Reflection and refraction; IV, Interference and diffraction; V, Metallic and vitreous lustre; VIII, Metallic colors; IX, Colloidal metals; X, Glasses and glazes. E. F. H.

AN UNUSUAL DEPOSIT OF ARAGONITE FROM SEA-WATER. ROGER C. WELLS. *J. Wash. Acad. Sci.*, **10**, 249–54, 1920.

Small prismatic crystals formed in sea-water which had remained sealed in a glass tube since 1913, were identified as aragonite. The conditions of formation are discussed. E. F. H.

SUBSTITUTES FOR PLATINUM IN BEAD AND FLAME TESTS. C. C. KIPLINGER. *J. Ind. Eng. Chem.*, **12**, 500, 1920.

Bead tests are made on a rod of graphite. For flame tests a paper wick is inserted in an elbow-shaped glass tube containing the solution to be tested, and this wick is burned. E. F. H.

NOTE ON THE COLORING AND THERMOLUMINESCENCE OF GLASS PRODUCED BY RADIUM RADIATION. S. C. LIND. *J. Phys. Chem.*, 24, 437–48, 1920.

The literature is summarized. It is pointed out that thermoluminescence of radiated glass and the discharge of the induced color are not always simultaneous phenomena. In violet colored glass or silica the thermoluminescence can be produced at temps. well below 200°, while the loss of color occurs above 500°. E. F. H.

SOME CHEMICAL OBSERVATIONS ON THE VOLCANIC EMANATIONS AND INCRUSTATIONS IN THE VALLEY OF 10,000 SMOKES, KATMAI, ALASKA. J. W. SHIPLEY. *Am. J. Sci.*, **50**, 141–53, 1920.

The following minerals were formed by the action of volcanic gases (H_2O, SO_3, HCl, HF, H_2S, SO_2, NH_4) on pumice and ash on the valley floor:—sulfur (paramorphs of orthorhombic after monoclinic xls.), arsenic sulfides, corundum (action of HF or NH_4F on Al_2O_3), amorphous silica (decomposition of SiF_4), gypsum, halite, alum, anhydrite, Fe chlorides, Fe sulfates, magnetite, amorphous Fe_2O_3, vivianite, and pyrite crystals. E. F. H.

AN OCCURRENCE OF NAUMANNITE IN IDAHO. EARL V. SHANNON. *Am. J. Sci.*, **50**, 390–1, 1920.

This first U. S. locality is at the DeLamar mine, Owyhee Co., Idaho. The mineral is dark blue-grey, markedly sectile, and malleable. H. 2.5, sp. gr. 6.527. Analysis after deducting impurities: Ag 75.98, Se 22.92, S 1.10, sum 100.00. Pb, Cu, Au, Zn, Bi, Sb, As, and Te are absent. E. F. H.

SULPHOHALITE FROM SEARLES LAKE, CALIF. WM. FOSHAG. *Am. J. Sci.*, **49**, 76–7, 1920.

The *n* of sulphohalite is 1.455. Many so-called octahedral halites, if closely examined, may prove to be this mineral. E. F. H.