Eleventh list of new mineral names.[1]

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Ajkaite. (L. Zechmeister, Math. Természettud. Értesitő, Budapest, 1926, vol. 43, p. 332 (ajkait); L. Zechmeister and V. Vrabély, Ber. Deutsch. Chem. Gesell., 1926, vol. 59, Abt. B, p. 1426). The same as ajkite (Bull. Soc. Min. France, 1878, vol. 1, p. 126; abstract from . . . ?). A fossil resin containing 1·5 % sulphur and no succinic acid, from Ajka, com. Veszprém, Hungary. [M.A. 3–362.]

Albiclase. A. N. Winchell, 1925. Journ. Geol. Chicago, vol. 33, p. 726; Elements of optical mineralogy, 2nd edit., 1927, pt. 2, p. 319. P. Niggli, Lehrbuch Min., 1926, vol. 2, p. 536 (Albiklas). A contraction of albite-oligoclase for felspars of the plagioclase series ranging in composition from $Ab_{90}An_{10}$ to $Ab_{80}An_{20}$.

Allite. H. Harrassowitz, 1926. Laterit, Material und Versuch erdgeschichtlicher Auswertung, Berlin 1926, p. 255 (Allit, *plur.* Allite). A rock-name to include both bauxite and laterite. Later (Metall und Erz, Halle, 1927, vol. 24, p. 589) bauxite with $Al_2O_3 . H_2O$ is distinguished as monohydrallite (Monohydrallit) and laterite with $Al_2O_3 . 3H_2O$ as trihydrallite (Trihydrallit). These, although suggestive of mineral-names (and given so in error in Chem. Zentr., 1926, vol. 1, p. 671), are proposed as rock-names; from aluminium and λίθος. Similarly, siallites (1926, p. 252, Siallit, from Si, Al, λίθος), to include kaolinite and allophanite, are rocks composed of the aluminium silicates kaolin and allophane.

[1] Previous lists of this series have been given at the ends of vols. 11–20 (1897–1925) of this Magazine. The 1,506 names included in these ten lists are all included in one alphabetical arrangement in the General Index (1926) to vols. 11–20 (1895–1925). References to 'Mineralogical Abstracts' are given in the form [M.A. 3–362].

Alumohydrocalcite. G. A. Bilibin, 1926. Zap. Ross. Min. Obshch. (Mém. Soc. Russe Min.), ser. 2, vol. 55, p. 243 (Алюмогидрокальцит, Alumohydrocalcite). Hydrated carbonate of calcium and aluminium $CaO.Al_2O_3.2CO_2.5H_2O$ or $CaH_2(CO_3)_2.2Al(OH)_3.H_2O$, as white chalky masses consisting of radially fibrous spherulites, with monoclinic symmetry, from Siberia. Named from the composition. [M.A. 3–472.]

Amargosite. J. Melhase, 1926. Engin. Mining Journ.-Press, New York, vol. 121, p. 841. Trade-name for a bentonite clay from Amargosa river, Inyo Co., California. *See* Otaylite. [M.A. 3–143.]

Ammoniojarosite. E. V. Shannon, 1927. Amer. Min., vol. 12, p. 424. Hydrated sulphate of ammonium and ferric iron, $(NH_4)_2O.3Fe_2O_3.4SO_3.6H_2O$, as ochre-yellow nodules consisting of minute flattened grains, probably rhombohedral, from Utah. A member of the jarosite isomorphous group, with ammonium oxide in place of potash, &c. [M.A. 3–470.]

Analbite. A. N. Winchell, 1925. Journ. Geol. Chicago, vol. 33, p. 717; Elements of optical mineralogy, 2nd edit., 1927, pt. 2, pp. 315, 325. Suggested as a more suitable name than anorthoclase, but restricted to those anorthoclases that contain less than 10 mol. % $KAlSi_3O_8$.

Andeclase. A. N. Winchell, 1925. Journ. Geol. Chicago, vol. 33, p. 726. P. Niggli, Lehrbuch Min., 1926, vol. 2, p. 536 (Andeklas). A contraction of andesine-oligoclase for felspars of the plagioclase series ranging in composition from $Ab_{70}An_{30}$ to $Ab_{60}An_{40}$.

Aramayoite. L. J. Spencer, 1926. Min. Mag., vol. 21, p. 156. E. Kittl, Revista Minera de Bolivia, 1927, vol. 2, p. 53 (Aramayoita). Sulphantimonite and sulphobismuthite of silver, $Ag_2S.(Sb,As)_2S_3 = Ag(Sb,Bi)S_2$, as black pseudo-tetragonal plates with perfect basal cleavage and steep pyramidal cleavages. X-ray examination (K. Yardley, Min. Mag., vol. 21, p. 163) proves it to be triclinic. From the Animas mine of the Compagnie Aramayo de Mines en Bolivie. Named after Señor Don Felix Avelino Aramayo, formerly Managing Director of the Company. [M.A. 3–269.]

Ardmorite. (H. S. Spence, Mines Branch, Canada, 1924, no. 626, p. 14.) Trade-name for a bentonite clay from Ardmore, South Dakota. Other names of a similar character are 'Refinite', 'Wilkinite', &c. *See* Amargosite, Otaylite.

Argyrojodit. T. Barth and G. Lunde, 1926. Zeits. Physik. Chem., vol. 122, p. 308. Error for Iodargyrite = Iodyrite.

Arrojadite. D. Guimarães, 1925. Publicação da Inspectoria de Obras Contra as Seccas, Rio de Jáneiro, 1925, no. 58, p. 1 (Arrojadita). J. B. de A. Ferraz, Bull. Soc. Franç. Min., 1927, vol. 50, p. 16 (arrojadite). Phosphate of sodium, iron, manganese, &c., $4R'_3PO_4.9R''_3P_2O_8$, as dark green masses (monoclinic) from Brazil. It agrees with a mineral from Black Hills, South Dakota, regarded by W. P. Headden in 1891 as a new mineral near triphylite. Named after the Brazilian geologist, Dr. Miguel Arrojado Lisbôa. [M.A. 3-113.]

Avogadrite. F. Zambonini, 1926. Atti (Rend.) R. Accad. Lincei, Roma, Cl. Sci. fis. mat. nat., ser. 6, vol. 3, p. 644. G. Carobbi, ibid., 1926, vol. 4, p. 382. Potassium fluoborate, KBF_4, containing up to 9·5 % $CsBF_4$, occurring as minute orthorhombic crystals of the baryte type in a mixed saline sublimation on Vesuvian lava. Named after the Italian physicist, Amedeo Avogadro (1776-1856). [M.A. 3-238.]

Barium-phlogopite. H. von Eckermann, 1925. Tschermaks Min. Petr. Mitt., vol. 38, p. 282 (Barium phlogopites), p. 286 (Baryumphlogopite). A phlogopite containing BaO 1·28 %, with golden sub-metallic lustre, from Mansjö Mtn., Sweden.

Beidellite. E. S. Larsen and E. T. Wherry, 1925. Journ. Washington Acad. Sci., vol. 15, p. 465; C. S. Ross and E. V. Shannon, ibid., p. 467, Journ. Amer. Ceramic Soc., 1926, vol. 9, p. 93. Hydrous metasilicate of aluminium, $Al_2O_3.3SiO_2.4H_2O$, probably orthorhombic, occurring as a gouge-clay (previously referred to leverrierite) at Beidell, Saguache Co., Colorado. Named from the locality. *See* Iron-beidellite. [M.A. 3-8, 3-73, 3-314, 3-413.]

Berkeyite. P. F. Kerr, 1926. Jewelers' Circular, New York, vol. 92, p. 67. A blue gem-stone from Brazil, afterwards (G. F. Kunz, ibid., p. 86) identified as lazulite. Named after Prof. Charles Peter Berkey (1865-), of Columbia University, New York.

Blythite. L. L. Fermor, 1926. Rec. Geol. Survey India, vol. 59, p. 204. E. V. Shannon, Journ. Washington Acad. Sci., 1927, vol. 17, p. 444. A hypothetical garnet molecule $3MnO.Mn_2O_3.3SiO_2$. Named after Mr. T. R. Blyth (d. 1911), assistant curator of the Geological Survey of India. Other garnet molecules assumed are $3FeO.Fe_2O_3.3SiO_2$ (named skiagite, q.v.), and $3MnO.Fe_2O_3.3SiO_2$ (to which the name calderite of H. Piddington, 1850, is restricted). [M.A. 3-308, 3-458.]

Bodenbenderite. E. Rimann, 1928. Sitzungsber. Abhandl. Naturwiss. Gesell. Isis, Dresden, Festschrift Richard Baldauf, p. 42 (Bodenbenderit). Silicate and titanate of aluminium, yttrium, manganese, &c., $(Mn,Ca)_4Al[(Al,Yt)O][(Si,Ti)O_4]_3$, as flesh-red cubic crystals resembling garnet, from the Sierra de Córdoba, Argentina. Named after Prof. Wilhelm (Guillermo) Bodenbender (1857–), of Córdoba, Argentina. [M.A. 3-472.]

Boehmite. J. de Lapparent, 1927. Compt. Rend. Acad. Sci. Paris, vol. 184, p. 1662. Aluminium hydroxide, assumed to be $Al_2O_3.H_2O$, as microscopic orthorhombic crystals (distinct from diaspore and isomorphous with lepidocrocite) forming a constituent of some bauxites. It is assumed to be identical with the 'bauxite' examined by J. Böhm of Berlin in 1925; hence the name. [M.A. 3-369, 3-430.]

Bolivianite. A. Pauly, 1923. Anal. Soc. Cient. Argentina, vol. 96, p. 273 (bolivianita); Centr. Min., Abt. A, 1926, p. 43 (Bolivianit). Incompletely described as a sulphide of tin, copper, and iron forming black trigonal crystals [evidently identical with stannite]. Named after the locality, Bolivia, where the name has been in use for some years (see Mining Journ. London, 1914, vol. 104, p. 147). Not the Bolivian of A. Breithaupt, 1866, = Bolivianite, J. D. Dana, 1868. [M.A. 3-112, 3-370.]

Bromellite. G. Aminoff, 1925. Zeits. Krist., vol. 62, p. 122 (Bromellit). Beryllium oxide, BeO; as white hexagonal crystals from Långban, Sweden. Named after the Swedish mineralogist, Magnus von Bromell (1679–1731). [M.A. 3-5.]

Brünnichite. C. L. Giesecke, MS. catalogue. C. G. Gmelin, Vet. Akad. Handl. Stockholm, 1816, p. 171 (Brünnikit). O. B. Bøggild, Mineralogia Groenlandica, Meddel. om Grønland, 1905, vol. 32, p. 554 (Brünnichit). A zeolite from Greenland shown by Gmelin's analysis to be apophyllite. Named after the Danish mineralogist, Morten Thrane Brünnich (1737–1827).

Burkeite. J. E. Teeple, 1921. Journ. Indust. Engin. Chem., Easton, Pa., vol. 13, p. 251. W. C. Blasdale, Journ. Amer. Chem. Soc., 1923, vol. 45, p. 2942. A. F. Rogers, Amer. Journ. Sci., 1926, ser. 5, vol. 11, p. 473. Sodium sulphate and carbonate, $2Na_2SO_4.Na_2CO_3$, as orthorhombic crystals, obtained artificially by heating above 25°C. the brine of Searles Lake, San Bernardino Co., California. or a solution

containing Na_2SO_4, Na_2CO_3, and NaCl. Named after Mr. W. E. Burke, chemist of the American Trona Corporation. [M.A. 3-162.]

Butlerite. C. Lausen, 1928. Amer. Min., vol. 13, p. 211. Hydrous ferric sulphate, $Fe_2O_3.2SO_3.5H_2O$, as minute orange-yellow orthorhombic crystals formed by the burning of pyritic ore in a mine in Arizona. Named after Prof. Gurdon Montague Butler (1881–), of the University of Arizona.

Buttgenbachite. A. Schoep, 1925. Compt. Rend. Acad. Sci. Paris, vol. 181, p. 421; Bull Soc. Chim. Belgique, vol. 34, p. 313; Ann. Soc. Géol. Belgique, 1927, vol. 49, Bull. p. B 308, vol. 50, p. B 215. Hydrous chloride and nitrate of copper, '$18CuO.3Cl.N_2O_5.19H_2O$', forming a felt of sky-blue needles resembling connellite; from Belgian Congo. Named after Prof. Henri Jean François Buttgenbach (1874–), of Bruxelles. H. Buttgenbach (Ann. Géol. Soc. Belgique, 1926, vol. 50, p. B 35) shows the crystals to be hexagonal and isomorphous with connellite; he writes the formula $2CuCl_2.Cu(NO_3)_2.15Cu(OH)_2.4H_2O$. [M.A. 3-6, 3-270, 3-372.]

Bytownorthite. A. N. Winchell, 1925. Journ. Geol. Chicago, vol. 33, p. 726; Elements of optical mineralogy, 2nd edit., 1927, pt. 2, p. 319. A contraction of bytownite-anorthite for felspars of the plagioclase series ranging in composition from $Ab_{20}An_{80}$ to $Ab_{10}An_{90}$.

Cahnite. C. Palache, 1921 (see 10th List). C. Palache and L. H. Bauer, Amer. Min., 1927, vol. 12, pp. 77, 149. Hydrous boro-arsenate of calcium, $4CaO.B_2O_3.As_2O_5.4H_2O$, as white tetragonal sphenoids from Franklin Furnace, New Jersey. Named after Mr. Lazard Cahn, of Colorado Springs, who first recognized the minute crystals. [M.A. 8-365.]

Calciclase. A. Johannsen, 1926. Journ. Geol. Chicago, vol. 34, p. 841. Members of the plagioclase series between pure anorthite and $Ab_{10}An_{90}$. *See* Sodaclase.

Calciosamarskite. H. V. Ellsworth, 1928. Amer. Min., vol. 13, pp. 65, 66. A variety of samarskite containing 4·76 to 7·56 % CaO, from Ontario, Canada. [M.A. 3-471.]

Calciumcylit. (Chem. Zentr., 1926, vol. 1, p. 1787). Error for Calcioancylite (A. E. Fersman, 1922; 10th List).

Calcium-larsenite. C. Palache, L. H. Bauer, and H. Berman, 1928. Amer. Min., vol. 13, p. 142. Zinc, lead, and calcium silicate,

$(Pb,Ca)ZnSiO_4$, white and massive from Franklin Furnace, New Jersey. Like larsenite (q.v.) with some calcium replacing lead. [M.A. 3–469.]

Calc-spessartite. L. L. Fermor, 1926. Rec. Geol. Survey India, vol. 59, pp. 203, 205. The names calc-spessartite, ferro-calderite, ferro-spessartite, magnesia-blythite, mangan-almandite, mangan-grandite, pyralmandite, and spalmandite (qq.v.) are suggested for garnets of intermediate composition. *See* Blythite.

Cannizzarite. F. Zambonini, O. De Fiore, and G. Carobbi, 1925. Rend. Accad. Sci. Fis. Mat. Napoli, ser. 3, vol. 31, p. 28; Annali R. Osservatorio Vesuviano, 1925, ser. 3, vol. 1 (for 1924), p. 34. Sulphobismuthite of lead. $PbS.2Bi_2S_3$, as small needles, probably orthorhombic from fumaroles on Vulcano, Lipari Islands. Named after the celebrated Italian chemist, Stanislao Cannizzaro (1826–1910). An abstract in Chem. Zentr., 1925, vol. 2, p. 2048, gives the spelling Cannizzarith. [M.A. 3–10.]

Chile-loeweite. W. Wetzel, 1928. Chemie der Erde, vol. 3, p. 388 (Chile-Loeweit). Minute trigonal crystals found in Chile saltpetre ('caliche'), differing optically and in composition $(K_2Na_4Mg_2(SO_4)_5.5H_2O)$ from loeweite. [M.A. 3–554.]

Chlormankalite. A. N. Winchell, 1927. Elements of optical mineralogy, 2nd edit., pt. 2, p. 33. A suggested abbreviation of Chlormanganokalite (4th List).

Chromloeweite. W. Wetzel, 1928. Chemie der Erde, vol. 3, p. 390 (Chromloeweit). Minute trigonal crystals found in Chile saltpetre ('caliche') were referred by the author in 1923 to dietzeite, in 1924 to an iron sulphate, and he now suggests that they may be a 'chromloeweite'. [M.A. 3–554.]

Chromrutile. S. G. Gordon and E. V. Shannon, 1928. Amer. Min., vol. 13, p. 69. A variety of rutile containing chromium (Cr_2O_3 16·61 %).

Codazzite. R. L. Codazzi, 1925. Notas mineralógicas y petrográficas, Bogotá, 1925, p. 10, plate 4; Los minerales de Colombia, Bogotá, 1927, p. 94 (codazzita). A rhombohedral carbonate near to ankerite but containing up to 7 % $(Ce,La,Di)CO_3$; from the emerald mine of Muzo, Colombia. Named after the Italian geographer Agostino Codazzi (1793–1859), who made the first map of Colombia.

Collinsite. E. Poitevin, 1927. Bull. Geol. Survey Canada, 1927, no. 46, p. 5. The name first appeared, in a title only, in Trans. Roy.

Soc. Canada, 1924, vol. 18, Proc. p. xlii. Hydrated phosphate of calcium, magnesium, and iron, $Ca_2(Mg,Fe)P_2O_8.2\frac{1}{2}H_2O$, forming concentric layers with 'quercyite' in phosphorite nodules from British Columbia. The cleavages and optical orientation point to triclinic symmetry; isomorphous with messelite. Named after Dr. William Henry Collins (1878–), Director of the Geological Survey of Canada. [M.A. 3–470.]

Comuccite. C. Doelter, 1925. Handbuch d. Mineralchemie, vol. 4, pt. 1, p. 481 (Comuecit). A sulphantimonite of lead with some iron, $18PbS.7FeS.15Sb_2S_3$, from Sardinia. Named after Dr. Probo Comucci, of Firenze, who analysed the mineral in 1916. [No doubt identical with jamesonite.] Incorrectly spelt Cornuccit [M.A. 3–469].

Cornuite. F. V. Hahn, 1925. Centr. Min., Abt. A, 1925, p. 353; 1926, p. 199; Kolloid-Zeits., 1925, vol. 37, p. 303 (Cornuit). A yellow gelatinous substance, apparently an albumen with 97 % water, found in fissures in the diatomite deposit of the Lüneburger Heide, Hanover. Named in memory of Dr. Felix Cornu (1882–1909). [The substance is perhaps a fungoidal growth.] Not the Cornuite of A. F. Rogers, 1917 (8th List). [M.A. 3–114.]

Cryptotilite. E. T. Wherry, 1925. Amer. Min., vol. 10, p. 143. Variant of Kryptotile (A. H. Chester, 1896; Kryptotil, A. Sauer, 1886).

Curtisite. F. E. Wright and E. T. Allen, 1926. Amer. Min., vol. 11, p. 67. A hydrocarbon, $C_{60}H_{40}O$, as a greenish deposit, orthorhombic (or monoclinic), from hot springs at Skaggs Springs, Sonoma Co., California. Named after Mr. P. L. Curtis of Skaggs Springs, who collected the material. [M.A. 3–239.]

Dekalbite. F. R. Van Horn, 1926. Amer. Min., vol. 11, p. 54 (De Kalbite). A name suggested for colourless diopside free from iron $CaMg(SiO_3)_2$, diopside being limited to $Ca(Mg,Fe)(SiO_3)_2$. Dekalbite and diopside in the pyroxene group then correspond with tremolite and actinolite in the amphibole group. Named from DeKalb, St. Lawrence Co., New York. [V. I. Vernadsky, 1913 (7th List), gave the name Kalbaite for tourmaline from this locality.]

Dienerite. C. Doelter, 1926. Handbuch d. Mineralchemie, vol. 4, pt. 1, p. 718 (Dienerit). Nickel arsenide, Ni_3As, found as greyish-white cubes. Named after Prof. Carl Diener (1862–1928) of Vienna, by whom the mineral was found at Radstadt, Salzburg. Described by O. Hackl, 1921 [M.A. 2–54].

Drewite. (R. M. Field, Carnegie Inst. Washington, 1920, Year book no. 18 (for 1919), p. 197; E. M. Kindle, Pan-Amer. Geol., 1923, vol. 39, pp. 368, 369). A form of calcium carbonate, evidently identical with calcite, formed by bacterial precipitation from sea-water, as described by George Harold Drew (1881–1913) in Journ. Marine Biol. Assoc. Plymouth, 1911, n. ser., vol. 9, p. 142. The name dates back to 1911, but I have been unable to find the earliest bibliographical reference.

Droogmansite. H. Buttgenbach, 1925. Ann. Soc. Géol. Belgique, vol. 48, Bull. p. B 219; Mém. Soc. Roy. Sci. Liége, 1925, ser. 3, vol. 13, no. 5, p. 72. An undetermined uranium mineral forming small orange-yellow globules, from Kasolo, Katanga. Named after Mr. Hubert Droogmans, President of the Comité Spécial of Katanga. [M.A. 3–6.]

Eisenandradit. *See* Iron-andradite.

Eisenbeidellit. *See* Iron-beidellite.

Eisenmonticellit. *See* Kalkeisenolivin.

Eschwegeite. D. Guimarães, 1926. Bol. Inst. Brasileiro Sci., vol. 2, p. 1 (Echwegeita), p. 2 (Eschwegeita). Hydrated tantalo-niobotitanate of yttrium (and erbium), $2Ta_2O_5.4Nb_2O_5.10TiO_2.5Yt_2O_3.7H_2O$, as dark-red, optically-isotropic material found as pebbles in the upper Rio Doce, Brazil. Named after Baron Wilhelm Ludwig von Eschwege (1777–1855), a pioneer in Brazilian geology and mineralogy. [M.A. 3–113.]

Ferrikalite. R. Scharizer, 1927. Zeits. Krist., vol. 65, p. 15 (Ferrikalit). An artificially prepared potassium ferric sulphate, $K_6Fe_2(SO_4)_6 + x$ aq., analogous to ferrinatrite (= ferronatrite).

Ferri-muscovite. W. Wahl, 1925. Fennia (Bull. Soc. Géogr. Finlande), Helsingfors, vol. 45, no. 20, p. 85 (Ferri-Muskovit). The ferric molecule $H_2KFe_3'''Si_3O_{12}$, corresponding to muscovite ($H_2KAl_3Si_3O_{12}$). The term 'Ferro-muscovite' is applied (erroneously) to lepidomelane, and 'Ferro-ferri-muscovite' to monrepite (q.v.).

Ferri-orthoclase. W. Wahl, 1925. Fennia (Bull. Soc. Géogr. Finlande), Helsingfors, vol. 45, no. 20, p. 48 (Ferri-Orthoklas). The ferric molecule $KFe'''Si_3O_8$ corresponding to orthoclase ($KAlSi_3O_8$). It was prepared artificially by P. G. Hautefeuille (1888) and is present (Fe_2O_3 up to 2·88 %) in the golden-yellow orthoclase 'orthose ferrifère' (A. Lacroix, 1922) of Madagascar. Iron-orthoclase [M.A. 3–480].

Ferro-antigorite. A. N. Winchell, 1926. Amer. Journ. Sci., ser. 5, vol. 11, p. 284 (ferro-antigorite); Amer. Min., 1928, vol. 13, p. 166.

(ferroantigorite). A hypothetical molecule $H_4Fe''_3Si_2O_9$ (corresponding with antigorite $H_4Mg_3Si_2O_9$) to explain the composition of the chlorites. *See* Iron-antigorite. [M.A. 3-373.]

Ferro-calderite. L. L. Fermor, 1926. *See* Calc-spessartite.

Ferro-spessartite. L. L. Fermor, 1926. *See* Calc-spessartite.

Ferrothorite. A Lacroix, 1923. Minéralogie de Madagascar, vol. 3, p. 310 (ferrothorite). A variety of thorite containing iron (Fe_2O_3 13·1 %) from Madagascar.

Fizelyite. J. S. Krenner and J. Loczka, 1926. Math. Természettud. Értesítő, Budapest, vol. 42, pp. 18, 21 (Fizélyit). A sulphantimonite of lead and silver, $5PbS.Ag_2S.4Sb_2S_3$, as striated lead-grey prisms from Kisbánya, Hungary. Named after the mining-engineer Sándor Fizély, by whom the mineral was found. See 7th List. [M.A. 3-8.]

Fluoborite. P. Geiger, 1926. Geol. För. Förh. Stockholm, vol. 48, p. 85; Sveriges Geol. Unders., 1927, Årsbok 20 (for 1926), no. 4, p. 26. A magnesium fluo-borate, $3MgO.B_2O_3 + 3Mg(F,OH)_2$, as colourless hexagonal prisms from Norberg, Sweden. Named from the composition. [M.A. 3-110, 3-274.]

Fraipontite. G. Cesàro, 1927. Ann. Soc. Géol. Belgique, vol. 50, Bull. p. B 106. Hydrated basic silicate of zinc and aluminium, $Zn_3(AlO)_4(SiO_4)_5.11H_2O$, as a fibrous crust. Named after Julien Jean Joseph Fraipont (1857-1910), a Belgian zoologist, and Charles Fraipont, of Liége. [M.A. 3-368.]

Fulvite. C. W. Carstens, 1928. Zeits. Krist., vol. 67, p. 272 (Fulvit). Titanium monoxide, TiO, cubic, prepared artificially and present in certain slags and cement clinkers. Named because of its brown colour, from the Latin fulvus, deep yellow (rutile being from rutilus, red).

Gauslinite. (A. F. Rogers, Amer. Journ. Sci., 1926, ser. 5, vol. 11, p. 473). A name used locally for Burkeite (q.v.). Named after Mr. — Gauslin, superintendent of the American Trona Corporation.

Genevite. L. Duparc and M. Gysin, 1927. Bull. Soc. Franç. Min., vol. 50, p. 41 (Genévite). Silicate of calcium, aluminium, &c., as small tetragonal crystals in limestone from Morocco. Previously thought to be dipyre, and perhaps identical with idocrase. Presumably named from Genève, Switzerland, where the authors reside. [M.A. 3-368.]

Gosseletite. J. Anten, 1923. Mém. (in 4°) Acad. Roy. Belgique, Cl. Sci., ser. 2, vol. 5, fasc. 3, p. 19. An undetermined mineral, perhaps an orthorhombic manganese silicate, occurring in the phyllites of the Belgian Ardennes. Named after the French geologist, Jules Auguste Alexandre Gosselet (1832–1916). [M.A. 3-11.]

Gouverneurite. F. R. Van Horn, 1926. Amer. Min., vol. 11, p. 54. The brown magnesia tourmaline of Gouverneur, St. Lawrence Co., New York, regarded as a distinct species of the tourmaline group.

Guildite. C. Lausen, 1928. Amer. Min., vol. 13, p. 217. Hydrous iron and copper sulphate, $3(Cu,Fe)O.2(Fe,Al)_2O_3.7SO_3.17H_2O$, as chestnut-brown monoclinic crystals formed by the burning of pyritic ore in a mine in Arizona. Named after Prof. Frank Nelson Guild (1870–), of the University of Arizona.

Hagatalite. K. Kimura, 1925. Japanese Journ. Chem., vol. 2, p. 81. A variety of zircon containing more rare-earths and less zirconia than naegite. Named from the locality, Hagata, prov. Iyo, Japan. [M.A. 3-9.]

Hengleinite. C. Doelter, 1926. Handbuch d. Mineralchemie, vol. 4, pt. 1, p. 643 (Hengleinit). The cobaltnickelpyrite of M. Henglein, 1914 (7th List), $(Co,Ni,Fe)S_2$ from Müsen, Westphalia. Named after Prof. Martin K. Henglein (1882–), of Karlsruhe.

Heterobrochantite. H. Buttgenbach, 1926. Ann. Soc. Géol. Belgique, vol. 49, Bull. p. B 164 (Hétérobrochantite). A basic copper sulphate, $CuSO_4.2Cu(OH)_2$, orthorhombic, regarded as a variety of antlerite (= stelznerite), from which it differs in optical orientation. Named from ἕτερος, the other, because of its resemblance to brochantite and because the crystals present a heteropolar (hemimorphic) development. [M.A. 3-270.]

Holdenite. C. Palache, 1921 (see 10th List). C. Palache and E. V. Shannon, Amer. Min., 1927, vol. 12, pp. 82, 144. Basic arsenate of manganese and zinc, $12R''O.As_2O_5.5H_2O$, as red orthorhombic crystals from Franklin Furnace, New Jersey. Named after Albert Fairchild Holden (1866–1913). [M.A. 3-365.]

Hyblite. H. V. Ellsworth, 1927. Amer. Min., vol. 12, p. 368. Alteration products occurring as a white (alpha-hyblite) and yellow (beta-hyblite) skin on uranothorite from Hybla, Hastings Co., Ontario. Microchemical tests suggest hydrous basic sulpho-silicate of thorium

with some uranium, iron, and lead. Named after locality. [M.A. 3–367.]

Hydrothorite. E. S. Simpson, 1928. Journ. Roy. Soc. Western Australia, vol. 13 (for 1927), p. 37. Hydrous thorium silicate, $ThSiO_4.4H_2O$, as a pale pink earthy, optically isotropic mineral resulting from the decomposition of mackintoshite; from Western Australia. The composition is that of a hydrated thorite. [M.A. 3-554.]

Hydroxymimetite. C. C. McDonnell and C. M. Smith, 1917. Journ. Amer. Chem. Soc., vol. 39, p. 940 (Hydroxy Mimetite). Artificially prepared basic lead arsenate, $Pb_4(PbOH)(AsO_4)_3.H_2O$, as hexagonal crystals resembling mimetite, but with water of crystallization.

Ianthinite. A. Schoep, 1926. Natuurwetenschappelijk Tijdschrift, vol. 7 (for 1925), p. 97; 1927, vol. 9, p. 1 (janthiniet); Ann. Soc. Géol. Belgique, 1927, vol. 49 (for 1926), Bull. pp. B 188, B 310 (ianthinite). Hydrated uranium dioxide, $2UO_2.7H_2O$, as violet orthorhombic crystals associated with pitchblende from Katanga. Named from *ἰάνθινος*, violet-coloured. [M.A. 3–232–3, 3–276, 3–370, 3–485.]

Ionite. V. T. Allen, 1927. Amer. Min., vol. 12, p. 78. Hydrous aluminium silicate, $2Al_2O_3.6SiO_2.5H_2O$, occurring in the Ione formation of California. Later (ibid., 1928, vol. 13, p. 145) identified with anauxite. Not the ionite of S. Purnell, 1878. [M.A. 3–370, 3-487.]

Iron-andradite. W. Fischer, 1925. Bol. Acad. Nac. Cienc. Argentina, vol. 28, p. 153 (andradida ferrugina); Centr. Min., Abt. A, 1926, p. 36 (Eisenandradit). A hypothetical garnet molecule $3FeO.Fe_2O_3.3SiO_2$. *See* Skiagite. [M.A. 3–150.]

Iron-antigorite. H. von Eckermann, 1925. Geol. För. Förh. Stockholm, vol. 47, p. 302. Hydrated ferric silicate, $3FeO.2SiO_2.2H_2O$, corresponding with the magnesium compound antigorite (serpentine). Described as iddingsite pseudomorphous after fayalite. *See* Ferro-antigorite.

Iron-beidellite. C. S. Ross and E. V. Shannon, 1925. Journ. Washington Acad. Sci., vol. 15, p. 467. A variety of beidellite rich in iron (Fe_2O_3 18·54, Al_2O_3 12·22 %) and forming a passage to $Fe_2O_3.3SiO_2.4H_2O$. A German translation is Eisenbeidellit. *See* Beidellite.

Iron-dolomite. R. W. G. Wyckoff and H. E. Merwin, 1924. Amer. Journ. Sci., ser. 5, vol. 8, p. 449 (iron dolomite; iron-rich dolomite). A synonym of ferriferous dolomite or of ankerite.

Iron-leucite. A. N. Winchell, 1927. The optic and microscopic characters of artificial minerals, Univ. Wisconsin Studies, Madison, no. 4, p. 143 (iron-leucite). P. Gaubert, Compt. Rend. Congr. Soc. Sav., 1926, for 1925, p. 408; Bull. Soc. Franç. Min., 1927, vol. 50, p. 514 (leucite ferrique). Pseudo-cubic $KFeSi_2O_6$ analogous to leucite with ferric oxide in place of alumina, prepared artificially by P. G. Hautefeuille (1880).

Iron-orthoclase. *See* Ferri-orthoclase.

Isoperthite. V. N. Lodochnikov, 1925. Zap. Ross. Min. Obshch. (Mém. Soc. Russe Min.), ser. 2, vol. 52, p. 107 (Изопертиты, *plur.*). Perthitic intergrowths consisting of the same kind of felspar, e.g. albite-isoperthite (альбит-изопертит).

Janthiniet, Janthinit. *See* Ianthinite.

Jeromite. C. Lausen, 1928. Amer. Min., vol. 13, p. 227. Sulphide and selenide of arsenic, $As(S,Se)_2$, as black fused globules deposited by hot gases from the burning of pyritic ore in a mine at Jerome, Arizona. Named from the locality.

Julienite. A. Schoep, 1928. Natuurwetenschappelijk Tijdschrift, Antwerpen, vol. 10, p. 58 (Juliëniet), p. 59 (juliénite). Hydrated chloro-nitrate of cobalt as minute blue needles, presumably hexagonal and isomorphous with buttgenbachite (q.v.); from Katanga. Named after Henry Julien (d. 1920).

Juxporite. Brit. Chem. Abstr., Ser. A., 1926, p. 1022; from Chem. Zentr., 1926, vol. 1, p. 1788 (Juxporit). A German spelling of Yuksporite (A. E. Fersman, 1922; 10th List). Another form is Juksporit (A. E. Fersman, Neues Jahrb. Min., Abt. A., 1926, vol. 55, p. 42).

Kalkeisenolivin. C. Doelter, 1913. Handbuch der Mineralchemie, vol. 2, pt. 1, p. 499 (Kalkeisenolivin, Eisenmonticellit). A crystallized slag described by W. von Gümbel (Zeits. Kryst. Min., 1893, vol. 22, p. 269), who compared it with monticellite with MgO replaced by FeO.

Kalk-Olivin. K. Oebbeke, 1877. Ein Beitrag zur Kenntniss des Palaeopikrits und seiner Umwandlungsproducte. Inaug.-Diss. Würzburg, 1877, p. 13 (Kalk-Olivin); C. Hintze, Handbuch d. Mineralogie, 1889, vol. 2, p. 8 (Kalkolivin). A pale-green olivine, from a palaeopikrite in Nassau, containing CaO 14·09%, and intermediate between olivine and monticellite in composition. The name has also been loosely applied to olivines containing less than this amount of lime, to monticellite, and to calcium orthosilicate. *See* Lime-olivine and Shannonite.

Kalkorthosilikat. O. Mügge, 1926. H. Rosenbusch's Mikrosk. Physiogr. Min. u. Gesteine, 5th edit., vol. 1, pt. 2, p. 367. The β-modification of Ca_2SiO_4 described by F. P. Paul in 1906. *See* Shannonite.

Keramite. J. W. Mellor and A. Scott, 1924. Trans. Ceramic Soc. Stoke-on-Trent, vol. 23 (for 1923-24), pp. 328, 336. V. I. Vernadsky, ibid., 1925, vol. 24, p. 18. Aluminium silicate, $3Al_2O_3.2SiO_2$, obtained artificially by heating kaolinite at 1700°. Evidently the same as mullite (10th List). Named from κέραμος, potter's earth, pottery. Not the keramite of T. S. Hunt, 1886, nor the ceramite of T. Blount, 1656, and T. Urquhart, 1693.

Kernite. W. T. Schaller, 1927. Amer. Min., vol. 12, p. 24. H. S. Gale, Engin. Mining Journ. New York, 1927, vol. 123, p. 10. Hydrated sodium borate, $Na_2O.2B_2O_3.4H_2O$, as colourless orthorhombic crystals and cleavage masses from Kern Co., California. Named from the locality. [M.A. 3-271.]

Kerzinite. N. A. Shadlun, 1923. Commission for the study of the natural products of Russia, Russ. Acad. Sci., Petrograd, vol. 4, no. 5 (Nickel), p. 4 (керзинит). Abstract, Neues Jahrb. Min., Abt. A, 1926, vol. 2, p. 113 (Kersinit). A lignite impregnated with a hydrated nickel silicate and used as a nickel ore in the Urals. The ash (6–7 %) contains Ni 3–15 %. Named after the mining engineer N. A. Kerzin (Н. А. Керзин) who discovered the deposit in 1913. [M.A. 3-492.]

Kipushite. H. Buttgenbach, 1927. Bull. Cl. Sci. Acad. R. Belgique, for 1926, p. 905. Hydrated phosphate of copper and zinc, $(Cu,Zn)_3(PO_4)_2 . 3(Cu,Zn)(OH)_2 . 3H_2O$, as blue monoclinic crystals from Kipushi, Katanga, Belgian Congo. The same as veszelyite with no arsenate. Named from the locality. [M.A. 3-269.]

Klockmannite. P. Ramdohr, 1928. Centr. Min., Abt. A, 1928, p. 225 (Klockmannit). Copper selenide, CuSe, as metallic slate-blue granular masses, perhaps hexagonal and isomorphous with covellite; from Sierra de Umango, Argentina, and Harz, Germany. Distinct from umangite. Named after Prof. Friedrich Ferdinand Hermann Klockmann (1858–), of Aachen, Germany.

Kolbeckite. F. Edelmann, 1926. Jahrb. Berg- und Hüttenw. Sachsen, vol. 100, p. A 73 (Kolbeckit). Beryllium phosphate or silico-phosphate as cyan-blue monoclinic crystals from Saxony. Named after

Prof. Friedrich Kolbeck, of the Mining Academy of Freiberg, Saxony. [M.A. 3-472.]

Korea-augite. F. Yamanari, 1926. Japanese Journ. Geol. Geogr., vol. 3 (for 1924), p. 106. A variety of augite, distinguished by its optical properties in micro-sections, present in alkali-trachyte from Korea. [M.A. 3-199.]

Labratownite. A. N. Winchell, 1925. Journ. Geol. Chicago, vol. 33, p. 726; Elements of optical mineralogy, 2nd edit., 1927, pt. 2, p. 319. A contraction of labradorite-bytownite for felspars of the plagioclase series ranging in composition from $Ab_{40}An_{60}$ to $Ab_{30}An_{70}$.

Larsenite. C. Palache, L. H. Bauer, and H. Berman, 1928. Amer. Min., vol. 13, p. 142. Lead and zinc silicate, $PbZnSiO_4$, as colourless orthorhombic prisms from Franklin Furnace, New Jersey. Isomorphous with olivine. Named after Prof. Esper Signius Larsen (1879-), of Harvard University, Cambridge, Massachusetts. [M.A. 3-469.]

Lime-olivine. N. L. Bowen, 1922. Amer. Journ. Sci., ser. 5, vol. 3, p. 30 (Lime olivine). The calcium orthosilicate described by F. P. Paul in 1906. *See* Shannonite and Kalk-Olivin. [M.A. 2-77.]

Lohestite. J. Anten, 1923. Mém. (in-4°) Acad. Roy. Belgique, Cl. Sci., ser. 2, vol. 5, fasc. 3, p. 29. H. Buttgenbach, Livre Jubilaire Soc. Géol. Belgique, 1925, vol. 3, p. 29. An almost isotropic material occurring as knots in the phyllites of the Belgian Ardennes and representing a stage in the formation of crystals of andalusite. Named after the Belgian geologist, Marie Joseph Maximin Lohest (1857-). [M.A. 3-11.]

Louderbackite. C. Lausen, 1928. Amer. Min., vol. 13, p. 220. Hydrous ferric and ferrous sulphate, $2FeO.3(Fe,Al)_2O_3.10SO_3.35H_2O$, as pale chestnut-brown crystalline crusts, optically biaxial, formed by the burning of pyritic ore in a mine in Arizona. Named after Prof. George Davis Louderback (1874-), of the University of California.

Lovchorrite. E. M. Bonshtedt, 1926. Bull. Acad. Sci. Russie, ser. 6, vol. 20, p. 1181 (ловчоррит, lovtchorrite). A. E. Fersman, Amer. Min., 1926, vol. 11, p. 295 (lovchorrite); Neues Jahrb. Min., Abt. A, vol. 55, p. 44 (Lovtschorrit). A colloidal glassy variety of rinkolite (q.v.). Named from the locality, Lovchorr (Ловчорр) plateau in the Khibinsky tundra, Kola peninsula, north Russia. [M.A. 3-236, 3-275.]

Lyndochite. H. V. Ellsworth, 1927. Amer. Min., vol. 12, p. 212. Niobate and titanate of yttrium, erbium, thorium, and calcium, as orthorhombic crystals resembling euxenite. Named from the locality, Lyndoch township, Renfrew Co., Ontario. [M.A. 3-366.]

Macgovernite. C. Palache and L. H. Bauer, 1927. Amer. Min., vol. 12, p. 373 (McGovernite). Hydrous basic arsenite, arsenate, and silicate of manganese, magnesium, and zinc, $21(Mn,Mg,Zn)O.3SiO_2.\frac{1}{2}As_2O_3.As_2O_5.10H_2O$, as reddish granular masses with perfect basal cleavage, probably hexagonal. From Stirling Hill, New Jersey. Named after the late Mr. J. J. McGovern (d. 1915), a local collector at Franklin Furnace, New Jersey. [M.A. 3-366.]

Magnesia-blythite. L. L. Fermor, 1926. Rec. Geol. Survey India, vol. 59, pp. 203, 205 (Magnesia-blythite), pl. 10 (Magnesio-blythite). A garnet containing pyrope and blythite (q.v.) molecules. *See* Calc-spessartite.

Magnesio-cronstedtite. A. N. Winchell, 1926. Amer. Journ. Sci., ser. 5, vol. 11, p. 284. A hypothetical molecule $H_4Mg_2Fe'''_2SiO_9$ (corresponding with cronstedtite $H_4Fe''_2Fe'''_2SiO_9$) used to explain the composition of the chlorites. [M.A. 3-373.]

Magnesium-orthite. P. Geijer, 1927. Sveriges Geol. Unders. Årsbok 20 (for 1926), no. 4, p. 7 (magnesium orthite, Mg-orthite). A variety of orthite from Norberg, Sweden, containing much magnesia (14·15 %) and fluorine (3·31 %) perhaps present as the molecule MgF_2. [M.A. 3-273.]

Magnetoilmenite. P. Ramdohr, 1925. 150. Festschr. Bergakad. Clausthal, p. 324. Neues Jahrb. Min., Abt. A, 1926, vol. 54, p. 345 (Magnetoilmenit). Hexagonal mixed crystals of ilmenite with magnetite, the name titanomagnetite being reserved for cubic mixed crystals of magnetite in ilmenite at the other end of the series with only a small break between.

Magnetoplumbite. G. Aminoff, 1925. Geol. För. Förh. Stockholm, vol. 47, p. 283 (Magnetoplumbit). A double oxide of ferric iron with lead and manganese and some titanium, &c., $2RO.3R_2O_3$, as acute hexagonal pyramids with black colour and metallic lustre, from Långban, Sweden. It is strongly magnetic and contains lead; hence the name. [M.A. 3-5.]

Malladrite. F. Zambonini and G. Carobbi, 1926. Atti (Rend.) R. Accad Lincei, Roma, Cl. Sci. fis. mat. nat., ser. 6, vol. 4, p. 173. Sodium

fluosilicate, Na_2SiF_6, as hexagonal crystals in depcsits from fumaroles on Vesuvius. Named after Prof. Alessandro Malladra, Conservator of the Vesuvian Observatory. Not to be confused with Mallardite of A. Carnot, 1879. [M.A. 3–238.]

Mangan-almandite. L. L. Fermor, 1926. *See* Calc-spessartite.

Mangan-grandite. L. L. Fermor, 1926. *See* Calc-spessartite.

Manganpennine. A. Hamberg, 1890. Geol. För. Förh. Stockholm, vol. 12, p. 585 (Mangan-Pennin). The terms manganiferous chlorite, manganchlorite, and manganpennine are used alternatively. [M.A. 3–474.]

Mellahite. E. Niccoli, 1925. Giornale di Chimica Industriale ed Applicata, Milano, vol. 7, p. 189; 1926, vol. 8, pp. 309, 604. The mixed salts (containing $MgSO_4$ 32, $MgCl_2$ 3, NaCl 19, KCl 20 %) deposited from sea-water in the large natural salt-pans Mellahet Brigá and Mellahet Bu-Numa near Bu-Kammash on the coast of Tripolitania. The name is given in connexion with a process for the extraction of potash from the mixed salts. From the Arabic, مَلَّاحَة mallāḥat = salt-pan, salina.

Metamilarite. F. Rinne, 1927. Centr. Min., Abt. A, 1927, p. 1 (Metamilarit). Milarite dehydrated by artificial heating with an accompanying change in the optical characters. [M.A. 3–451.]

Metarossite. W. F. Foshag and F. L. Hess, 1927. Proc. United States Nat. Mus., vol. 72, art. 11, p. 1. Hydrated vanadate of calcium, $CaO.V_2O_5.2H_2O$, occurring in Colorado as a dehydration product of rossite (q.v.). [M.A. 3–470.]

Metavauxite. S. G. Gordon, 1927. Amer. Min., vol. 12, p. 264. Hydrated phosphate of ferrous iron and aluminium, $FeO.Al_2O_3.P_2O_5.4H_2O$, as monoclinic crystals from Bolivia. Named after Mr. George Vaux, junior (1863–1927), of Bryn Mawr, Pennsylvania. *See* Vauxite and Paravauxite, 10th List. [M.A. 3–370.]

Milowite (T. H. Barry, The Industrial Chemist, London, 1928, vol. 4, p. 227). Trade-name for a white powdery, 'amorphous silica' (SiO_2 98·12, Al_2O_3 0·85, MgO trace, alk. 0·41, H_2O 0·62 %) from the island of Milos, Greece.

Mitscherlichite. F. Zambonini and G. Carobbi, 1925. Ann. R. Osservatorio Vesuviano, ser. 3, vol. 2, p. 9. Hydrated potassium cupric chloride, $K_2CuCl_4.2H_2O$, as minute greenish-blue tetragonal crystals on

saline sublimations in the crater of Vesuvius. Named after the German chemist, Eilhardt Mitscherlich (1794–1863), who prepared this salt artificially in 1840.

Modderite. R. A. Cooper, 1924. Journ. Chem. Metall. Mining Soc. South Africa, vol. 24, p. 265. Monoarsenide of cobalt, CoAs, as a bluish-white (incompletely determined) mineral, occurring with niccolite (NiAs) on the Witwatersrand, Transvaal. Evidently named from the Modderfontein mine. [M.A. 3–115.]

Monohydrallite. H. Harrassowitz, 1927. *See* Allite.

Monrepite. W. Wahl, 1925. Fennia (Bull. Soc. Géogr. Finlande), Helsingfors, vol. 45, no. 20, p. 87 (Monrepit). A ferro-ferri-mica, $H_2KFe'''Fe''_3(SiO_4)_3$, forming a series parallel to the phlogopite-lepidomelane series. Occurs as a constituent of rapakivi-granite at Monrepos, Viborg, Finland. Named from the locality. [M.A. 3–500.]

Muntenite. (G. G. Longinescu, Bull. Sect. Sci. Acad. Roumaine, 1925, vol. 9, p. 170 [= no. 9–10, p. 20] (Mounténite); L. J. Spencer, Min. Mag., 1927, vol. 21, p. 247 (muntenite).) A fossil resin from Eocene beds at Oläneşti, in Oltenia, Romania, related to copalite and gedanite, and differing from romanite (which occurs in the Oligocene). It was described by G. Murgoci (George Munteanu-Murgoci, 1872–1925) in 'Gisements du succin de Roumanie . . . et un nouvelle résine-fossile d'Oläneşti' (Bucarest, 1903; Romanian edition in 1902). The name was first mentioned to me by Prof. Murgoci in 1907, when he said that it would be published by C. I. Istrati and M. A. Mihăilescu, but he was never able to give me the bibliographical reference.

Norbergite. P. Geijer, 1926. Geol. För. Förh. Stockholm, vol. 48, p. 84; Sveriges Geol. Unders. 1927, Årsbok 20 (for 1926), no. 4, p. 16. A magnesium silicate with fluorine and hydroxyl, $Mg_2SiO_4.Mg(F,OH)_2$, as pink, massive aggregates from Norberg, central Sweden. It is optically distinct from 'prolectite' for which the same formula was suggested. Named from the locality. [M.A. 3–110, 3–273.]

Normannite. A. Weisbach [1833–1901], MS. A. Tetzner and F. Edelmann, Jahrb. Berg- u. Hüttenw. Sachsen, 1927, vol. 101, p. A 102. Basic bismuth carbonate, $3Bi_2O_3.CO_2$, as brown globular aggregates from Schneeberg, Saxony. Named after Dr. — Normann (d. 1883 in Zwickau). [M.A. 3–540.]

Odenite. J. J. Berzelius, MS. 1815. Jac. Berzelius brev (Jac. Berzelius lettres) by H. G. Söderbaum, Uppsala, 1921, vol. 4, pt. 1, pp. 45, 49, 89, 99

(odenit, odeniten); N. Zenzén, Geol. För. Förh. Stockholm, 1926, vol. 48, p. 95 (Odenit). Berzelius in his letters (1815, 1817) to W. Hisinger applied this name to a black mica (biotite) from Finbo, Sweden, which he believed to contain a new chemical element 'odenium'. Other forms of the name, odinite, odite, oderite, have appeared (A. H. Chester's Dictionary of the names of minerals, 1896, p. 192); compare also wodanite (9th List). Named from Odin, the chief deity of Norse mythology.

Oroseite. A. Amstutz, 1925. Schweiz. Min. Petr. Mitt., vol. 5, p. 308. A red-brown alteration product of olivine in basalt from Orosei, Sardinia. Named from the locality. It differs from traversite (q.v.) in its optical orientation with respect to the olivine. [Evidently the same as iddingsite.] [M.A. 3–369.]

Otaylite. (H. S. Spence, Mines Branch, Canada, 1924, no. 626, p. 11; C. S. Ross and E. V. Shannon, Journ. Amer. Ceramic Soc., 1926, vol. 9, pp. 88–89; J. Melhase, Engin. Mining Journ.-Press, New York, 1926, vol. 121, p. 837.) Trade-name for a bentonite clay from Otay, San Diego Co., California. *See* Amargosite, Ardmorite. [M.A. 3–143.]

Ousbékite. *See* Uzbekite.

Oyamalite. K. Kimura, 1925. Japanese Journ. Chem., vol. 2, p. 81. A variety of zircon containing rare-earths and phosphoric acid. Named from the locality, Oyama, prov. Iyo, Japan. [M.A. 3-9.]

Penroseite. S. G. Gordon, 1926. Proc. Acad. Nat. Sci. Philadelphia, vol. 77 (for 1925), p. 317; Amer. Min., vol. 11, p. 42. Selenide of lead, copper, and nickel, perhaps $PbSe.Cu_2Se.(Ni,Co)Se_3$, as lead-grey, radiating columnar masses with perfect orthorhombic cleavages. From Bolivia. Named after Dr. Richard Alexander Fullerton Penrose, junior (1863–), mining geologist, of Philadelphia, Pennsylvania. [M.A. 3-112.]

Peruvite. L. Pflücker y Rico, 1883. Anales de la Escuela de Construcciones Civiles y de Minas del Perú, Lima, vol. 3, no. 1, p. 62 (Peruvita). I. Domeyko, Mineralojía, 3rd Appendix, Santiago de Chile, 1884, p. 31 (Perulita [sic]). C. Hintze, Handb. Min., 1902, vol. 1, pt. 1, p. 991 (Peruvit). Synonym of matildite ($AgBiS_2$) which was first described from the Matilde vein near Morococha, Peru, under the name Silberwismuthglanz (C. F. Rammelsberg, 1877; Monatsber. Akad. Wiss. Berlin, for 1876, p. 700). The names matildite, morocochite, and peruvite were independently given in 1883 to replace this German chemical name.

Picrocollite. E. S. Simpson, 1928. Journ. Roy. Soc. Western Australia, vol. 13 (for 1927), p. 43. A hypothetical molecule $H_4MgSi_3O_8.2H_2O$ containing the same number of atoms as halloysite ($H_4Al_2Si_2O_8.2H_2O$), the two being regarded as end-members of the pilolite-palygorskite group. [M.A. 3-545.]

Pierrepontite. F. R. Van Horn, 1926. Amer. Min., vol. 11, p. 54. The black iron tourmaline of Pierrepont, St. Lawrence Co., New York, regarded as a distinct species of the tourmaline group.

Plaffeiite. A. Tschirsch and — Kato, 1926. Mitt. Naturfor. Gesell. Bern, for 1925, p. 13 (Plaffeiit). A fossil resin occurring in the Flysch at Plaffeien, Switzerland. Named from the locality. [M.A. 3-475.]

Potarite. Sir John B. Harrison, MS. 1925. Bull. Soc. Franç. Min., 1926, vol. 49, p. 5. L. J. Spencer, Min. Mag., 1928, vol. 21, p. 397. Palladium amalgam or mercuride, PdHg, cubic, as white grains from the diamond-washings on the Potaro river, British Guiana. Named from the locality. [M.A. 3-4.]

Potassalumite. A. N. Winchell, 1927. Elements of optical mineralogy, 2nd edit., pt. 2, p. 114. Cubic potash-alum; it being suggested that the fibrous kalinite is monoclinic.

Pseudoglaucophane. L. Duparc, 1927. Compt. Rend. Soc. Phys. Hist. Nat. Genève, vol. 44, p. 49. An amphibole differing from ordinary glaucophane in its optical characters.

Pumpellyite. C. Palache and H. E. Vassar, 1925. Amer. Min., vol. 10, p. 412. Hydrous alumino-silicate of calcium, $6CaO.3Al_2O_3.7SiO_2.4H_2O$, as minute, bluish-green, orthorhombic fibres and plates in the copper-bearing amygdaloidal rocks of the Keweenaw Peninsula, Michigan. It has some resemblances to zoisite. Named after the American geologist, Raphael Pumpelly (1837-1923). [M.A. 3-8.]

Pyralmandite. L. L. Fermor, 1926. Rec. Geol. Survey India, vol. 59, p. 205. A contraction of pyrope and almandite for garnets of intermediate composition. Compare 'spandite' and 'grandite' (L. L. Fermor, 1907, 1909; 4th and 5th Lists) and 'spalmandite' below. *See* Calc-spessartite.

Pyralspite. A. N. Winchell, 1927. Elements of optical mineralogy, 2nd edit., pt. 2, p. 257. A contraction of the names pyrope, almandine, and spessartine for this series of garnets in which there is complete isomorphous replacement. Two species of garnet are recognized—'pyralspite' and 'ugrandite' (q.v.).

Quenselite. G. Flink, 1926. Geol. För. Förh. Stockholm, vol. 47 (for 1925), p. 377 (Quenselit). Basic lead manganite, $2PbO.Mn_2O_3.H_2O$, as black monoclinic crystals from Långban, Sweden. Named after Prof. Percy Dudgeon Quensel (1881–), of Stockholm. [M.A. 3–110.]

Rafaelite. A. Windhausen and P. T. Vignau, 1912. Informes Preliminares de la Dirección General de Minas, Geología é Hidrología, Buenos Aires, no. 1 (rafaelita). G. Fester and F. Bertuzzi, Zeits. angew. Chem., 1925, vol. 38, p. 364 (Rafaelit). A vanadiferous asphaltum (the ash, $\frac{1}{4}$–$\frac{1}{2}$ %, containing 21–44 % V_2O_5) found in 1890 near San Rafael, Argentina. [Not the Rafaelite of A. Arzruni, 1899, 2nd List.]

Ransomite. C. Lausen, 1928. Amer. Min., vol. 13, p. 221. Hydrous copper ferric sulphate, $CuO.Fe_2O_3.4SO_3.7H_2O$, as sky-blue orthorhombic crystals formed by the burning of pyritic ore in a mine in Arizona. Named after Prof. Frederick Leslie Ransome (1868–), of the California Institute of Technology.

Reniforite. K. Kawai, 1925. [Journ. Geol. Soc. Tokyo, 1925, vol. 32, p. 106]; abstract in Japanese Journ. Geol. Geogr., '1924', vol. 3, Abstracts p. (15). Sulpharsenite of lead, $5PbS.As_2S_3$, as reniform aggregates from Japan. Evidently named from reniform. The analysis given agrees with those of jordanite. [M.A. 3–114.]

Rinkolite. E. M. Bonshtedt, 1926. Bull. Acad. Sci. Russie, ser. 6, vol. 20, pp. 1181 (ринколит, rinkolite). A. E. Fersman, Amer. Min., 1926, vol. 11, p. 295; Neues Jahrb. Min., Abt. A, 1926, vol. 55, p. 44 (Rinkolit). Titano-silicate of cerium, calcium, strontium, and sodium, as large yellowish-green monoclinic crystals in the nepheline-syenites of the Kola peninsula. Related to rinkite. [M.A. 3–236, 3–275.]

Rogersite. C. Lausen, 1928. Amer. Min., vol. 13, p. 225. Hydrous ferric sulphate, $Fe_2O_3.3SO_3.6H_2O$, as aggregates of monoclinic fibres formed by the burning of pyritic ore in a mine in Arizona. Named after Prof. Austin Flint Rogers (1877–), of Stanford University, California.

Rossite. F. L. Hess and W. F. Foshag, 1926. Amer. Min., vol. 11, p. 66; W. F. Foshag and F. L. Hess, Proc. United States Nat. Mus., 1927, vol. 72, art. 11, p. 1. Hydrated vanadate of calcium, $CaO.V_2O_5.4H_2O$; triclinic. From Colorado. Named after Dr. Clarence Samuel Ross (1880–), of the United States Geological Survey. *See* Metarossite. [M.A. 3–239, 3–470.]

Scharizerite. J. Schadler, 1926. Anz. Akad. Wiss. Wien, Math.-naturw. Kl., vol. 62 (for 1925), p. 180. A nitrogenous hydrocarbon found as black patches in the phosphatic earth in a cave in Styria. Named after Prof. Rudolf Scharizer (1859–), of Graz, Styria. [M.A. 3–474.]

Schultenite. L. J. Spencer, 1926. Nature, London, vol. 118, pp. 412, 754; Min. Mag., vol. 21, p. 149. Lead hydrogen arsenate, $PbHAsO_4$, as colourless orthorhombic plates from Tsumeb, South-West Africa. Named after Baron August Benjamin de Schulten (1856–1912) of Helsingfors and Paris, who prepared and described artificial crystals of this compound. [M.A. 3–232.]

Shannonite. C. E. Tilley, 1927. Geol. Mag., vol. 64, p. 144; also independently a few months later by A. N. Winchell, Elements of optical mineralogy, pt. 2, 1927, p. 165. Supposed to be calcium orthosilicate, β-Ca_2SiO_4; but afterwards (C. E. Tilley, Geol. Mag., 1928, vol. 65, p. 29) proved to be monticellite, and the name was withdrawn. Named from the locality, Shannon Tier, Tasmania. The same mineral has also been referred to as Kalkorthosilikat and Lime-olivine (q.v.). [M.A. 3–273, 3–474.]

Shinkolobwite. H. Buttgenbach, 1925. Mém. Soc. Roy. Sci. Liége, ser. 3, vol. 13, no. —, p. 72 (see also pp. 13, 62, 182). Another spelling of Chinkolobwite (A. Schoep, 1923; 10th List), named from the Shinkolobwe or Chinkolobwe copper mine. The mineral, however, comes from the neighbouring Kasolo hill in Katanga, Belgian Congo.

Siallite. H. Harrassowitz, 1926. *See* Allite.

Silesite. A. Pauly, 1926. Centr. Min., Abt. A, p. 43 (Silesit). Stated to be a silicate of tin, as concretionary forms resembling chalcedony. Named after Dr. Hernando Siles, President of Bolivia. [M.A. 3–112, 3–370.]

Skiagite. L. L. Fermor, 1926. Rec. Geol. Survey India, vol. 59, p. 202. A hypothetical garnet molecule $3FeO.Fe_2O_3.3SiO_2$ present (nearly 20 %) in garnet from Glen Skiag in Scotland, and in some Indian garnets. *See* Iron-andradite.

Slavikite. R. Jirkovský and F. Ulrich, 1926. Věstník Státního Geol. Ústavu Československ., vol. 2, p. 345 (Slavíkit). Hydrated sodium and ferric sulphate, $(Na,K)_2SO_4.2Fe_5(OH)_3(SO_4)_6.63H_2O$, as minute greenish-yellow rhombohedral crystals on weathered pyritic shales from Bohemia. Named after Prof. František Slavík (1876–), of Prague. [M.A. 3–365.]

Sodaclase. A. Johannsen, 1926. Journ. Geol. Chicago, vol. 34, p. 841. Members of the plagioclase series between pure albite and $Ab_{90}An_{10}$. *See* Calciclase.

Sodalumite. A. N. Winchell, 1927. Elements of optical mineralogy, 2nd edit., pt. 2, p. 114; The optic and microscopic characters of artificial minerals, Madison, 1927, pp. 100, 101. Sodium-alum, $Na_2Al_2(SO_4)_4.24H_2O$, the cubic modification prepared artificially and not known with certainty as a mineral. Mendozite, with the same chemical composition, is optically birefringent and probably uniaxial.

Soddyite. (V. Billiet, Natuurwetenschappelijk Tijdschrift, Antwerpen, 1926, vol. 7 (for 1925), p. 112 (Soddyiet); A. Schoep, ibid., 1927, vol. 9, p. 25 (Soddyiet), p. 29 (Soddyite)). A more correct form of soddite (A. Schoep, 1922; 9th List). Named after Prof. Frederick Soddy (1877–), of Oxford. [M.A. 3-371.]

Spalmandite. L. L. Fermor, 1926. Rec. Geol. Survey India, vol. 59, p. 205. A contraction of spessartite and almandite for garnets of intermediate composition. *See* Pyralmandite.

Starlite. G. F. Kunz, 1927. Jewelers' Circular, New York, vol. 94, p. 65 (Starlite). Amer. Min., 1927, vol. 12, p. 265 (starlight), p. 294 (starlite). Trade-name for 'artificially coloured' blue zircon from Siam. Named from star and λίθος, stone.

Sursassite. J. Jakob, 1926. Schweiz. Min. Petr. Mitt., vol. 6, p. 376 (Sursassit). Hydrous manganese and aluminium silicate, $5MnO.2Al_2O_3.5SiO_2.3H_2O$, as copper-red fibrous aggregates, from Oberhalbstein, Switzerland. Named from Sursass, the name for this locality in the Rhæto-Romanic dialect. [M.A. 3-272.]

Tanatarite. O. A. Petrushkevich, 1926. Bull. Geol.-Min. Circle Ekaterinoslav Mining Inst., no. 2, p. 19 (танатарит); I. I. Tanatar, ibid., 1927, p. 9. Aluminium hydroxide, $Al_2O_3.H_2O$, stated on optical grounds to be monoclinic and therefore dimorphous with diaspore. Occurs in chromite in Russian Central Asia. Named after Prof. Josef I. Tanatar (Иосиф И. Танатар) of the Ekaterinoslav (= Dnepropetrovsk) Mining Institute. Kayserite (K. Walther, 1922; 10th List) was distinguished from diaspore on the same grounds. [M.A. 3-237, 3-473.]

Tangeite. A. E. Fersman, 1925. Priroda, Leningrad, 1925, no. 7-9, col. 238 (тангеит). K. A. Nenadkevich and P. A. Volkov, Compt. Rend. Acad. Sci. URSS, 1926, Ser. A, p. 43 (тангент, tanguéite). I. Kurbatov,

Centr. Min., Abt. A, 1926, p. 346 (Tangeit). Hydrated vanadate of copper and calcium, $2CuO.2CaO.V_2O_5.H_2O$, as dark-green radially fibrous botryoidal masses from Tyuya-Muyun, Fergana. Named from the Tange gorge. The colloidal form is termed 'Turkestan-volborthite' (q.v.), and is compared with calciovolborthite. [M.A. 3–234.]

Tangueite. *See* Tangeite.

Telegdite. L. Zechmeister and V. Vrabély, 1927. Centr. Min., Abt. A, p. 287. A fossil resin from Transylvania, containing sulphur 1·73 % and no succinic acid. Named after Dr. Karl Roth von Telegd (telegdi Róth Károly dr.) of the Geological Survey of Hungary. [M.A. 3–369.]

Ternovskite. Y. I. Polovinkina, 1924. Zap. Ross. Min. Obshch. (Mém. Soc. Russe Min.), ser. 2, vol. 53, p. 216 (*Терновскит*), p. 233 (*ternovskit*). A variety of alkali-amphibole distinguished from other members of the group by its optical characters. Named from the locality, Ternovsky mine, Krivoy Rog, Ukraine. [M.A. 3–196.]

Thermokalite. H. J. Johnston-Lavis, MS. K. W. Earle, Proc. Geol. Assoc. London, 1928, vol. 39, p. 96. An undescribed 'member of the haloid group' in the Johnston-Lavis collection of Vesuvian minerals. Perhaps named from analogy with thermonatrite [$Na_2CO_3.H_2O$], in which case it would belong to the carbonate group.

Thorotungstite. J. B. Scrivenor and J. C. Shenton, 1927. Amer. Journ. Sci., ser. 5, vol. 13, p. 487; Geologist's Ann. Rep. Federated Malay States, 1927, for 1926, p. 2. Hydrated oxide of tungsten and thorium $2WO_3.H_2O + ThO_2.H_2O$, as yellow masses of minute (perhaps orthorhombic) crystals, from Perak. It shows a relation to tungstite, hence the name. [M.A. 3–367.]

Thucholite. H. V. Ellsworth, 1928. Amer. Min., vol. 13, p. 66. 'A remarkable carbon mineral' from Parry Sound, Ontario.

Tikhvinite. O. M. Ansheles and N. I. Vlodavetz, 1927. Zap. Ross. Min. Obshch. (Mém. Soc. Russe Min.), ser. 2, vol. 56, p. 53 (ТИХВИНИТ), p. 60 (tikhvinite). Phosphate and sulphate of aluminium and strontium, $2SrO.3Al_2O_3.P_2O_5.SO_3.6H_2O$ (or $7H_2O$), occurring as nodules in bauxite in the Tikhvin district, Russia. Named after the locality. [M.A. 3–473.]

Titano-elpidite. A. E. Fersman, 1926. Amer. Min., vol. 11, p. 295. Neues Jahrb. Min., Abt. A, 1926, vol. 55, p. 43 (Titanoelpidit). A. N. Labuntzov, Compt. Rend. Acad. Sci. URSS, Ser. A, 1926, p. 39

(титановый эльпидит, elpidite titanifère). A variety of elpidite containing more titanium than zirconium. [M.A. 3-235, 3-236.]

Toddite. H. V. Ellsworth, 1926. Amer. Min., vol. 11, p. 332. Niobate (and tantalate) of uranium, iron, &c., as rounded masses, optically isotropic, in pegmatite from Ontario. Named after Mr. E. W. Todd, of the Ontario Department of Mines. [M.A. 3-271.]

Trachyaugite. F. Yamanari, 1926. Japanese Journ. Geol. Geogr., vol. 3 (for 1924), p. 107. A variety of augite, distinguished by its optical properties in micro-sections, present in alkali-trachyte from islands in the Sea of Japan. [M.A. 3-199.]

Traversite. A. Amstutz, 1925. Schweiz. Min. Petr. Mitt., vol. 5, p. 302. A red-brown alteration product of olivine in basalt from Traversa, near Orosei, Sardinia. Named from the locality. *See* Oroseite. [Evidently the same as iddingsite. Not to be confused with traversoite (10th List), also from Sardinia.] [M.A. 3-369.]

Trihydrallite. H. Harrassowitz, 1927. *See* Allite.

Trudellite. S. G. Gordon, 1926. Proc. Acad. Nat. Sci. Philadelphia, vol. 77 (for 1925), p. 317; Amer. Min., vol. 11, p. 42. Hydrous basic chloride and sulphate of aluminium, $Al_2(SO_4)_3.4AlCl_3.4Al(OH)_3.30H_2O$, as compact (trigonal), amber-yellow masses from Chile. Named after Mr. Harry William Trudell (1884-), of Philadelphia, Pennsylvania. [M.A. 3-112.]

Turkestan-volborthite. I. A. Antipov, 1908. Gornyi Zhurnal, St. Petersburg, year 84, vol. 4, p. 261; abstract in Neues Jahrb. Min., 1909, vol. 2, Ref. p. 39 (turkestanischer Volborthit). K. A. Nenadkevich and P. A. Volkov, Compt. Rend. Acad. Sci. URSS, Ser. A, 1926, p. 46 (туркестанский фольбортит). I. Kurbatov, Centr. Min., Abt. A, 1926, p. 346. A greenish-black mineral from Turkestan differing somewhat from volborthite in chemical composition, and regarded by Nenadkevich and Volkov as the colloidal equivalent of tangeite (q.v.). [M.A. 3-234.]

Ugrandite. A. N. Winchell, 1927. Elements of optical mineralogy, 2nd edit., pt. 2, p. 257. A contraction of the names uvarovite, grossular, and andradite for this series of garnets in which there is complete isomorphous replacement. Two species of garnet are recognized—'ugrandite' and 'pyralspite' (q.v.).

Ulrichite. G. Kirsch, 1925. Tschermaks Min. Petr. Mitt., vol. 38, p. 227 (Ulrichit). Cubic uranium oxide, UO_2, representing the original

mineral which by 'radioactive transformation pseudomorphism' gave rise to uraninite. (Pitchblende is regarded as a distinct mineral—uranium uranate.) Named after Dr. Carl Ulrich (–1925), radio-chemist, of Vienna. [M.A. 3–106.]

Ungvarite. Variant of Unghwarite (of E. F. Glocker, 1837), a variety of chloropal from Ungvár, Hungary, now Užhorod in Carpathian Ruthenia, Czechoslovakia. V. Zepharovich (Min. Lex. Oesterr., 1859) has the form Unghvarit; British Museum Index, since 1863, Unghvarite; M. Tóth (Min. Hungary, 1882), Ungvárit. [Min. Mag. 21–459.]

Usbekit. *See* Uzbekite.

Uzbekite. A. E. Fersman, 1925. Priroda, Leningrad, 1925, no. 7–9, col. 238 (узбекит), Musée de Minéralogie, Acad. Sci. Leningrad, 1925, p. 4 (ousbékite). I. Kurbatov, Centr. Min., Abt. A, 1926, p. 234 (Usbekit). Hydrous copper vanadate, $3CuO.V_2O_5.3H_2O$, as thin dark-green crusts. Named from the locality, Uzbekistana district in Fergana (from the Uzbek or Uzbeg race in Central Asia). [M.A. 3–234.]

Viterbite. R. L. Codazzi, 1925. Notas mineralógicas y petrográficas, Bogotá, 1925, p. 26; Los minerales de Colombia, Bogotá, 1927, p. 124 (viterbita). A compact chocolate-coloured or white and powdery mineral consisting of hydrated silicate and phosphate of aluminium, and explained as a mixture of allophane and wavellite. Named from the locality, Santa Rosa de Viterbo, Boyacá, Colombia. [M.A. 3–129.]

Warthaite. J. S. Krenner, 1909. Akadémiai Értesítő, Budapest, vol. 20, p. 105, 'Warthait egy új magyar ásvány' (title only). J. S. Krenner, Math. Természettud. Értesítő, Budapest, 1926, vol. 42, pp. 4, 5; J. Loczka, ibid., pp. 10, 20 (Warthait). A sulphobismuthite of lead, $4PbS.Bi_2S_3$, as steel-grey fibrous aggregates from Hungary. Named after Professor Vince Wartha, of the József Polytechnic in Budapest. Evidently identical with goongarrite (E. S. Simpson, 1924; 10th List). [M.A. 3–7.]

Weisbachite. F. Kolbeck, 1907. C. F. Plattner's Probierkunst mit dem Lötrohre, 7th edit., Leipzig, 1907, pp. 241, 253; 8th edit., 1927, pp. 235, 246 (Weisbachit). K. Hlawatsch, Ann. Naturhist. Museums Wien, 1925, vol. 38, p. 19. A variety of anglesite containing barium sulphate, $5PbSO_4.BaSO_4$; from Chile. Named after Professor Julius Albin Weisbach (1833–1901), of Freiberg, Saxony. Evidently the same as hokutolite (of K. Jimbō, 1913; 6th List).

Weissite. W. P. Crawford, 1927. Amer. Journ. Sci., ser. 5, vol. 13, p. 345. Copper telluride, Cu_5Te_3, as a massive bluish-black mineral

from Vulcan, Colorado. Named after the late Dr. Loui Weiss, owner of the Good Hope mine where the mineral was found. [Evidently the same as rickardite; not the weissite of H. G. Trolle-Wachtmeister, 1828.] [M.A. 3-367.]

Zinc-teallite. F. Ahlfeld, 1926. Centr. Min., Abt. A, 1926, p. 388 (Zinkteallit). Teallite with some zinc replacing lead, $(Pb,Zn)SnS_2$, from Bolivia. Previously described under the name pufahlite (F. Ahlfeld, 1925; 10th List). [M.A. 3-272.]

Zonolite. E. N. Alley, Engin. Mining Journal-Press, New York, 1925, vol. 120, p. 819. Trade-name for a light flaky material obtained by roasting vermiculite (altered phlogopite), from near Libby, Montana. It is used as a packing material for heat insulation and in the manufacture of wall-paper. [M.A. 3-78.]

SYSTEMATIC CLASSIFICATION OF NEW MINERALS.[1]

MERCURIDE.

Potarite, PdHg.

SULPHIDES, ARSENIDES, &c.

Jeromite, $As(S,Se)_2$.
Klockmannite, CuSe.
Modderite, CoAs.
Dienerite, Ni_3As.
Hengleinite, $(Co,Ni,Fe)S_2$.
Weissite, Cu_5Te_3.
Penroseite, $PbSe.Cu_2Se.(Ni,Co)Se_3$.

SULPHO-SALTS.

Aramayoite, $Ag_2S.(Sb,Bi)_2S_3$.
Cannizzarite, $PbS.2Bi_2S_3$.
Fizelyite, $5PbS.Ag_2S.4Sb_2S_3$.
Comuccite, $18PbS.7FeS.15Sb_2S_3$.
Warthaite, $4PbS.Bi_2S_3$.
Reniforite, $5PbS.As_2S_3$.
Zinc-teallite, $(Pb,Zn)SnS_2$.

HALOIDS.

Mitscherlichite, $K_2CuCl_4.2H_2O$.

OXIDES.

Bromellite, BeO.
Fulvite, TiO.
Chromrutile.
Ulrichite, UO_2.
Magnetoplumbite, $2(Pb,Mn)O.3Fe_2O_3$.

HYDROXIDES.

Boehmite, $Al_2O_3.H_2O$.
Tanatarite, $Al_2O_3.H_2O$.
Ianthinite, $2UO_2.7H_2O$.
Thorotungstite, $2WO_3.ThO_2.3H_2O$.
Quenselite, $2PbO.Mn_2O_3.H_2O$.

CARBONATES.

Codazzite, (Ca,Ce, &c.)
Normannite, $3Bi_2O_3.CO_2$.
Alumohydrocalcite, $CaO.Al_2O_3.2CO_2.5H_2O$.

SULPHATES.

Weisbachite, $5PbSO_4.BaSO_4$.
Burkeite, $2Na_2SO_4.Na_2CO_3$.
Heterobrochantite, $CuSO_4.2Cu(OH)_2$.
Chile-loeweite, $K_2Na_4Mg_2(SO_4)_5.5H_2O$.
Ammoniojarosite, $(NH_4)_2O.3Fe_2O_3.4SO_3.6H_2O$.
Tikhvinite, $2SrO.3Al_2O_3.P_2O_5.SO_3.6H_2O$.
Trudellite, $Al_2(SO_4)_3.4AlCl_3.4Al(OH)_3.30H_2O$.
Butlerite, $Fe_2O_3.2SO_3.5H_2O$.

[1] Only a selection of the names given in the preceding alphabetical list is here included.

Rogersite, $Fe_2O_3.3SO_3.6H_2O$.
Ferrikalite, $K_6Fe_2(SO_4)_6$ + aq.
Slavikite,
$(Na,K)_2SO_4.2Fe_5(OH)_3(SO_4)_6.63H_2O$.
Ransomite, $CuO.Fe_2O_3.4SO_3.7H_2O$.
Guildite,
$3(Cu,Fe)O.2(Fe,Al)_2O_3.7SO_3.17H_2O$.
Louderbackite,
$2FeO.3(Fe,Al)_2O_3.10SO_3.35H_2O$.

Nitrates.

Buttgenbachite,
$2CuCl_2.Cu(NO_3)_2.15Cu(OH)_2.4H_2O$.
Julienite, Co, Cl, N_2O_5, H_2O.

Borates.

Avogadrite, KBF_4.
Kernite, $Na_2O.2B_2O_3.4H_2O$.
Fluoborite, $3MgO.B_2O_3.3Mg(F,OH)_2$.

Phosphates, Arsenates, &c.

Schultenite, $PbHAsO_4$.
Collinsite, $Ca_2(Mg,Fe)(PO_4)_2.2\frac{1}{2}H_2O$.
Metavauxite, $FeO.Al_2O_3.P_2O_5.4H_2O$.
Arrojadite, $4Na_3PO_4.9(Fe,Mn)_3(PO_4)_2$.
Kipushite,
$(Cu,Zn)_3(PO_4)_2.3(Cu,Zn)(OH)_2.3H_2O$.
Holdenite, $12(Mn,Zn).As_2O_5.5H_2O$.
Cahnite, $4CaO.B_2O_3.As_2O_5.4H_2O$.
Macgovernite, $21(Mn,Mg,Zn)O.$
$3SiO_2.\frac{1}{2}As_2O_3.As_2O_5.10H_2O$.
Rossite, $CaO.V_2O_5.4H_2O$.
Metarossite, $CaO.V_2O_5.2H_2O$.
Uzbekite, $3CuO.V_2O_5.3H_2O$.
Tangeite, $2CuO.2CaO.V_2O_5.H_2O$.
Kolbeckite, (Be silicophos. ?).

Niobates, Titanates, &c.

Eschwegeite,
$2Ta_2O_5.4Nb_2O_5.10TiO_2.5Yt_2O_3.7H_2O$.
Lyndochite.
Toddite.
Calciosamarskite.
Titano-elpidite.

Silicates.

Malladrite, Na_2SiF_6.
Ferri-orthoclase, $KFe'''Si_3O_8$.
Ternovskite, var. amphibole.
Pseudoglaucophane, var. amphibole.
Lime-olivine.
Larsenite, $PbZnSiO_4$.
Calcium-larsenite, $(Pb,Ca)ZnSiO_4$.
Norbergite, $Mg_2SiO_4.Mg(F,OH)_2$.
Blythite, $3MnO.Mn_2O_3.3SiO_2$.
Skiagite, $3FeO.Fe_2O_3.3SiO_2$.
Bodenbenderite,
$(Mn,Ca)_4Al[(Al,Yt)O][(Si,Ti)O_4]_3$.
Rinkolite, Ti-Si, Ce, Ca, Na.
Lovchorrite ,,
Ferri-muscovite, $H_2KFe'''_3(SiO_4)_3$.
Monrepite, $H_2KFe'''Fe''_3(SiO_4)_3$.
Barium-phlogopite.
Magnesium-orthite.
Ferrothorite.
Hydrothorite, $ThSiO_4.4H_2O$.
Hyblite, SiO_2, SO_4, Th, H_2O, &c.
Beidellite, $Al_2O_3.3SiO_2.4H_2O$.
Iron-beidellite, $Fe_2O_3.3SiO_2.4H_2O$.
Ferro-antigorite, $H_4Fe''_3Si_2O_9$.
Sursassite $5MnO.2Al_2O_3.5SiO_2.3H_2O$.
Pumpellyite, $6CaO.3Al_2O_3.7SiO_2.4H_2O$.
Fraipontite, $Zn_3(AlO)_4(SiO_4)_5.11H_2O$.

Hydrocarbons.

Curtisite, $C_{60}H_{40}O$.
Plaffeiite.
Telegdite.
Muntenite.
Scharizerite.
Thucholite.