

*Fourteenth list of new mineral names.*¹

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Ahlfeldite. R. Herzenberg, 1935. Zentr. Min., Abt. A, 1935, pp. 189, 279 (Ahlfeldit). Nickel selenate (or selenite) occurring as a reddish alteration product of blockite (q.v.), from Colquechaca, Bolivia. Perhaps identical with cobaltomenite. Named after Dr. Friedrich Ahlfeld, of Marburg, Germany. [M.A. 6-147.]

Aidyrlite. M. N. Godlevsky, 1934. Mém. Soc. Russ. Min., ser. 2, vol. 63, p. 338 (Айдырлит), p. 344 (Aidyrlit). Hydrated silicate of aluminium and nickel, $2\text{NiO} \cdot 2\text{Al}_2\text{O}_3 \cdot 3\text{SiO}_2 \cdot 7\frac{1}{2}\text{H}_2\text{O}$, as compact turquoise-blue masses, from the river Aidyrly (р. Айдырлы), Urals. Named from locality. [M.A. 6-150.]

Aikinite. R. P. Greg and W. G. Lettsom, Mineralogy of Great Britain and Ireland, 1858, p. 354. Pseudomorph of wolframite after scheelite from Cornwall, named by A. Lévy [but not found in any of his publications]. Named after Arthur Aikin (1773-1854). Not the aikinite of E. J. Chapman, 1843.

Alumochromite. A. G. Betekhtin, 1934. Ann. Inst. Mines, Leningrad, vol. 8, p. 38 (алюмохромит), p. 63 (Alumchromit). A member of the spinel group with the composition $\text{Fe}(\text{Cr}, \text{Al})_2\text{O}_4$. Other hypothetical members of the group are named Magnoferrichromite, $(\text{Fe}, \text{Mg})(\text{Cr}, \text{Fe})_2\text{O}_4$ (магноферрихромит, Magnoferrichromit); Ferrichromspinel, $\text{Mg}(\text{Cr}, \text{Al}, \text{Fe})_2\text{O}_4$ (феррихромшпинель, Ferrichromspinel); and Ferrichrompicotite, $(\text{Fe}, \text{Mg})(\text{Cr}, \text{Al}, \text{Fe})_2\text{O}_4$ (феррихромпикотит, Ferrichrompikotit). Several other names of this type for the spinel group are given by A. K. Böldyrev, Kurs opisatelnoi mineralogii, Leningrad, 1935, part 3, p. 115 (see Cobaltochrompicotite).

¹ Previous lists of this series have been given every three years at the ends of vols. 11-23 (1897-1934) of this Magazine. The 1506 names in the first ten lists are 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. 6-147].

Alumopharmacosiderite. G. Hägele and F. Machatschki, 1937. Fortschr. Min. Krist. Petr., vol. 21, p. 77 (Alumopharmakosiderit). Artificially prepared cubic crystals $\text{Al}_3(\text{AsO}_4)_2(\text{OH})_3 \cdot 5\text{H}_2\text{O}$, or perhaps $\text{Al}_5\text{As}_3\text{O}_{12}(\text{OH})_6 \cdot 6\text{H}_2\text{O}$, analogous to pharmacosiderite with aluminium in place of iron.

Anthracene. R. Rost, 1935. Věda Přírodní, Praha, vol. 16, p. 204 (antracén). An organic compound ($\text{C}_{14}\text{H}_{10}$) formed by the burning of pyritous shale in Bohemia. [M.A. 6-357.]

Arsenostibite. P. Quensel, 1937. Geol. För. Förh. Stockholm, vol. 59, p. 148 (arsenostibite). Variant of arsenstibite (— Adam, 1869) for an amorphous alteration product of allemontite consisting of hydrated oxides of arsenic and antimony. [M.A. 6-487.]

Arsentsumebite. Bull. Soc. Franç. Min., 1935, vol. 58, p. 4 (arsentsumébite). A variety of tsumebite (6th List) containing some arsenate in place of phosphate of lead and copper, from Tsumeb, South-West Africa.

Astridite. H. W. V. Willems, 1934. De Ingenieur in Nederlandsch-Indië, vol. 1, part 4 (Mijnbouw en Geologie), p. 120 (Astridiet). An ornamental stone consisting mainly of chromojadeite from New Guinea. Named after Astrid (1905-1935), Queen of Belgium. [M.A. 6-502.]

Attapulgitite. J. de Lapparent, 1935. Compt. Rend. Acad. Sci. Paris, 1935, vol. 201, p. 483; 1936, vol. 202, p. 1728; 1936, vol. 203, pp. 482, 596. A variety of fuller's earth containing alumina and magnesia, $x[9\text{SiO}_2 \cdot 6(\text{Mg}, \text{Fe}''', \text{Ca})\text{O} \cdot 12\text{H}_2\text{O}] + y[9\text{SiO}_2 \cdot 2(\text{Al}, \text{Fe}''')_2\text{O}_3 \cdot 12\text{H}_2\text{O}]$. from Attapulgitus, Georgia, U.S.A. P. F. Kerr (Amer. Min., 1937, vol. 22, p. 534) identifies it with montmorillonite. [M.A. 6-150, 346, 413.]

Aurosmirid. O. E. Zvyagintzev, 1934. Doklady Akad. Nauk CCCP (Compt. Rend. Acad. Sci. URSS), vol. 4, p. 178 (ауроосмирид), p. 179 (Aurosmirid). Solid solution of gold and osmium in cubic iridium (as distinct from a solid solution of iridium, &c., in hexagonal osmium). Found as silver-white grains in residues of Uralian platinum insoluble in aqua regia. A contraction of aurum-osmium-iridium. [M.A. 6-51.]

Austinite. L. W. Staples, 1935. Amer. Min., vol. 20, pp. 112, 199. Basic arsenate of calcium and zinc, $\text{CaZn}(\text{OH})\text{AsO}_4$, as colour-

less bisphenoidal orthorhombic crystals, from Utah. Identical with brickerite (13th List), F. Ahlfeld and R. Mosebach, *Zentr. Min., Abt. A*, 1936, p. 289. Not to be confused with austenite (F. Osmond, 1895), a constituent of manufactured steel. Named after Professor Austin Flint Rogers (1877-), of Stanford University, California. [M.A. 6-53, 345, 384.]

Bacalite. J. D. Buddhue, 1935. *Rocks and Minerals*, Peekskill, N.Y., vol. 10, p. 171. A variety of amber from Baja (Lower) California, Mexico. Named from the locality in a contracted form. (Not to be confused with the artificial product bakelite.) [M.A. 6-503.]

Beiyinite. T. L. Ho, 1935. *Bull. Geol. Soc. China*, vol. 14, p. 279 (Beiyinite). An undetermined mineral presumed to contain rare-earths (La, Ce, Yt, Er) as minute grains (tetragonal?) in fluorite from Beiyin Obo, Inner Mongolia. With oborite (q.v.), named from the locality. [M.A. 6-151.]

Bermanite. C. S. Hurlbut, 1936. *Amer. Min.*, vol. 21, p. 657. Hydrated basic phosphate of manganese, &c. $(Mn, Mg)_{\frac{2}{3}}(Mn, Fe)_{\frac{1}{3}}(PO_4)_8(OH)_{10} \cdot 15H_2O$, as minute reddish-brown orthorhombic crystals in triplite from Arizona. Named after Dr. Harry Berman of Harvard University, Cambridge, Massachusetts. [M.A. 6-442.]

Bismoclite. E. D. Mountain, 1935. *Min. Mag.*, vol. 24, p. 59. Bismuth oxychloride, pale grey, compact (tetragonal), from South Africa. Named from the chemical composition $BiOCl$.

Blockite. R. Herzenberg, 1935. *Zentr. Min., Abt. A*, 1935, p. 189; R. Herzenberg and F. Ahlfeld, *ibid.*, p. 277 (Blockit). Nickel and copper selenide $(Ni, Cu)Se_2$, as shelly masses, from Colquechaca, Bolivia. F. A. Bannister and M. H. Hey (*Amer. Min.*, 1937, vol. 22, p. 319) identify it with penroseite (11th List). Named after the mining engineer, Hans Block, who collected the material. [M.A. 6-147, 490.]

Boksputite. E. D. Mountain, 1935. *Min. Mag.*, vol. 24, p. 62. Carbonate of lead and bismuth, $6PbO \cdot Bi_2O_3 \cdot 3CO_2$, pale yellow, compact. Named from the locality, Boksput farm, Gordonia, South Africa.

Boodtite. L. De Leenheer, 1936. *Natuurwet. Tijdschr. Gent*, vol. 18, p. 77 (boodtiet). Hydrated oxide of cobalt, copper, and iron, $5Co_2O_3 \cdot CuO \cdot Fe_2O_3 \cdot 11H_2O$, as friable grey-black masses, from Katanga. Named after Anselm Boëthius de Boodt (1550-1634) of

Bruges, author of 'Gemmarum et lapidum historia' (1609). [M.A. 6-343.]

Brandãoosite. A. Mário de Jesus, [1936]. Com. Serv. Geol. Portugal, vol. 19 (for 1933), p. 132 (Brandãoosite). An almandine-spessartine with a formula, $4RO.R_2O_3.4SiO_2$, different from that of garnet. From Mangualde, Portugal. Named after the Portuguese crystallographer, Vicente de Souza Brandão (1863-1916). [M.A. 6-441.]

Broggite. G. A. Fester and J. Cruellas, 1935. Bol. Soc. Geol. Peru, vol. 7, p. 14 (Broggita). A variety of asphaltum from Peru. Named after Jorge Alberto Broggi, Inspector-General of Mines in Peru. [M.A. 6-443.]

Bungonite. I. Iwasa, 1877. [Gakugéisirin, no. 57.] Z. Harada, Journ. Fac. Sci. Hokkaido Univ., Sapporo, Ser. 4, 1936, vol. 3, p. 324 (Bungonit). An incorrectly determined mineral from Japan, afterwards (Z. Sasamoto, 1895) identified with kämmererite. Presumably named from the locality, Bungo, Japan.

Calcio-åkermanite. A. N. Winchell, Optical mineralogy, 2nd edit., New York, 1927, p. 267 (Calcium-akermanite). O. M. Shubnikova and D. V. Yuferov, Spravochnik po novym mineralam, Leningrad, 1934, p. 71 (кальцио-акерманит, calcio-åkermanite). The hypothetical molecule $Ca_3Si_2O_7$, i.e. åkermanite with Mg replaced by Ca. [Cf. M.A. 2-427.]

Calcio-olivine. O. M. Shubnikova and D. V. Yuferov, 1934. Spravochnik po novym mineralam, Leningrad, 1934, p. 67 (Кальцио-оливин), p. 163 (Calcio-olivin). Translation of Lime-olivine and Kalk-Olivin (11th List).

Calcio-spessartine. O. M. Shubnikova and D. V. Yuferov, Spravochnik po novym mineralam, Leningrad, 1934, p. 66 (Кальцио-спессартия, Calc-spessartite), p. 163 index (Calcio-spessartite). Variant of calc-spessartite (11th List).

Calcium-melillite. A. N. Winchell, 1933. Optical mineralogy, 3rd edit., New York, 1933, p. 208 (Calcium-melilite). A hypothetical molecule, $Ca_3Al_2Si_4O_{14}$, to interpret the composition of mixed crystals of the melilite group.

Calcium-rinkite. I. D. Borneman-Starynkevich, 1935. Materials Geochem. Khibina tundra, Acad.Sci. USSR, pp. 48, 57, 65 (кальциевый

ринкит); P. N. Chirvinsky, *ibid.*, pp. 82, 88 (Kalzium-Rinkit). Fluotitano-silicate of calcium and sodium, $3\text{CaTiO}_3 \cdot 10(\text{Ca}, \text{Na}_2, \text{H}_2)\text{SiO}_3 \cdot 3\text{CaF}_2$, isomorphous with rinkite with calcium in place of cerium earths; from the Kola peninsula, Russia. Perhaps identical with hainite (J. Blumrich, 1893; 1st List; incorrectly spelt as Gainit, гаинит). [M.A. 6-343.]

Calcotephroite. C. Palache, 1935. Prof. Paper U.S. Geol. Survey, no. 180, p. 80. Local name for what appears to be an impure variety of glaucocroite (CaMnSiO_4).

Capreite. R. Bellini, 1922. *Boll. Soc. Geol. Ital.*, vol. 40 (for 1921), p. 228 (Capreite). A black encrustation on the walls of a limestone cave on the sea-shore of the island of Capri, Italy. A fetid calcite similar to pelagosite. Named from the locality.

Carbocer. I. D. Borneman-Starynkevich, 1933. Khibina Apatite, Leningrad, 1933, vol. 6, p. 272 (Карбоцер, Carbocer). O. M. Shubnikova and D. V. Yuferov, *Spravochnik po novym mineralam*, Leningrad, 1934, p. 157. A carbonaceous mineral containing 8.2% of rare-earth; burns with loss on ignition 74.36%. Occurs in kondrikovite from the Kola peninsula, Russia. Named from carbon and cerium. [M.A. 6-342.]

Carburan. A. N. Labuntzov, 1934. O. M. Shubnikova and D. V. Yuferov, *Spravochnik po novym mineralam*, Leningrad, 1934, p. 157 (Карбуран, Carburan). P. K. Grigoriev, *Trans. Geol. Prosp. Inst. USSR*, 1935, no. 37, p. 29 (карбуран). A carbonaceous mineral containing C 60.96, H_2O 28.93, ash 9.51% (the ash contains UO_3 54.20, PbO 17.01, Fe_2O_3 6.01%), occurring with uraninite in pegmatite in Karelia, Russia. Related to thucholite (11th List). Named from carbon and uranium. [M.A. 6-437.]

Cayeuxite. Z. Sujkowski, 1936. *Arch. Min. Tow. Nauk. Warszaw.* (Arch. Min. Soc. Sci. Varsovie), vol. 12, p. 122 (cayeuxyt), p. 138 (cayeuxite). Pyritic nodules rich in As, Sb, Ge, Mo, Ni, &c., from Lower Cretaceous shales in the Carpathians. Named after Prof. Lucien Cayeux (1864-) of Paris. [M.A. 6-344.]

Cerapatite. A. E. Fersman, 1926. *Neues Jahrb. Min., Abt. A*, Beil-Bd. 55, pp. 40, 45 (Cerapatit); *Amer. Min.*, 1926, vol. 11, p. 293 (Cerium-apatite). O. M. Shubnikova and D. V. Yuferov, *Spravochnik po novym mineralam*, Leningrad, 1934, p. 109 (церапатит, cerapatite).

A variety of apatite containing 3.18 % of rare-earths (Ce_2O_3 1.33 %) from the Kola peninsula, Russia. [Cf. M.A. 2-408, 409; 3-235; 6-233, 312.]

Chlopinite. *See* Khlopinite.

Chlor-amphibole. G. A. Krutov, 1936. *See* Dashkesanite.

Chrome-epidote. P. Eskola, 1933. *Compt. Rend. Soc. Géol. Finlande*, 1933, no. 7, pp. 35, 38 (chrome epidote). Variant of chrome-epidote (10th List) for tawmawite (5th List) or the compound $\text{H}_2\text{Ca}_4\text{Cr}_6\text{Si}_8\text{O}_{26}$. Varieties richer in aluminium are 'chrome clinozoisite', and those richer in iron 'chrome pistazite'. [M.A. 6-47.]

Chrome-tremolite. P. Eskola, 1933. *Compt. Rend. Soc. Géol. Finlande*, 1933, no. 7, p. 31 (chrome-tremolite), p. 39 (chrome tremolite). *Bull. Soc. Franç. Min.*, 1933, vol. 56, p. 188 (chromtrémolite). Tremolite containing Cr_2O_3 1.61 %, from Outokumpu, Finland. [M.A. 6-47.]

Chrome-vesuvian. S. M. Kurbatov, 1922. *Bull. Acad. Sci. Russie*, 1922, ser. 6, vol. 16, p. 414; 1923, vol. 17, p. 115; 1925, vol. 19, p. 482 (хромовый везувиан). C. Hintze, *Handbuch der Mineralogie, Ergänzungsband*, 1936, p. 116 (Chromvesuvian). Synonym of chrome-idocrase (7th List). [M.A. 3-354.]

Clarite. R. Potonié, 1924. *Kohlenpetrographie*, Berlin, p. 33 (Clarit). Variant of clarain (8th List). Not the clarite of F. Sandberger, 1874. The names Durain, Fusain, and Vitrain (8th List) are similarly altered to Durit, Fusit, and Vitrit. Several other variations of these names are given by E. Stach, *Lehrbuch der Kohlenpetrographie*, Berlin, 1935.

Clinoferrosilite. N. L. Bowen, 1935. *Amer. Journ. Sci.*, ser. 5, vol. 30, pp. 481, 492. N. F. M. Henry, *Min. Mag.*, 1935-37, vol. 24, pp. 225, 528. A monoclinic pyroxene with the composition FeSiO_3 , ferrous metasilicate, found as minute crystals in the lithophysae of obsidians. [M.A. 6-261.]

Clino-triphyllite. P. Quensel, 1937. *Geol. För. Förh. Stockholm*, vol. 59, p. 81 (clino-triphyllite). A form of triphylite, $\text{Li}(\text{Fe}, \text{Mn})\text{PO}_4$, with polysynthetic twinning and optical extinction suggesting divergence from orthorhombic symmetry. [M.A. 6-485.]

Clino-ungemachite. M. A. Peacock and M. C. Bandy, 1936. Amer. Min., 1936, vol. 21, no. 12, pt. 2, p. [2]; 1937, vol. 22, p. 207. Monoclinic (pseudo-rhombohedral) crystals closely related to ungemachite (q.v.). [M.A. 6-443.]

Cobaltochrompicotite. A. K. Boldyrev, 1935. Kurs opisatelnoi mineralogii, Leningrad, part 3, p. 115 (Кобальтохромпикотит). A member of the spinel group containing cobalt, $(Mg, Fe, Co)(Cr, Al)_2O_4$ (?). Many other compound names are here given for the spinel group. See Alumochromite.

Cobalto-sphaerosiderite. R. Reissner, 1935. Zentr. Min., Abt. A, 1935, p. 173 (Cobalto-Sphärosiderit, Kobalt-Oligonspat). A peach-blossom-red rhombohedral carbonate containing $FeCO_3$ 40-48, $MnCO_3$ 19-11, $MgCO_3$ 21-06, $CoCO_3$ 14-44, $CaCO_3$ 4-34, $ZnCO_3$ 0-61%. [M.A. 6-151.]

Colloid-calcite, &c. See Kolloid-calcite.

Coulsonite. J. A. Dunn, 1937. Mem. Geol. Surv. India, vol. 49, p. 21. J. A. Dunn and A. K. Dey, Trans. Mining Geol. Inst. India, 1937, vol. 31, p. 131. A vanadiferous iron ore assumed to have the composition $FeO.(Fe, V)_2O_3$. It occurs in magnetite from Bihar, India, and was first mentioned under the name vanado-magnetite (q.v.). Named after Dr. Arthur Lennox Coulson, of the Geological Survey of India. [M.A. 6-489.]

Cuprolovchorrite or **Cuprovudyavrite.** P. N. Chirvinsky, 1935. Materials Geochem. Khibina tundra, Acad. Sci. USSR, p. 87 (медистый ловчоррит, медистый вудьяврит), p. 89 (Kupferlovchorrit, Kupferwudjavrit). An emerald-green amorphous mineral occurring with lovchorrite (11th List) and vudyavrite (q.v.) in the Kola peninsula, Russia. [M.A. 6-343.]

Cuproplatinum. P. A. Wagner, 1929. The platinum deposits and mines of South Africa, p. 11. A variety of platinum containing 8-13% of copper, occurring as thin shells around grains of ferroplatinum from the Urals. It was first described as 'copper-bearing platinum' by A. N. Zavaritzky, Matér. Géol. gén. appl., Comité Géol., Leningrad, 1928, no. 108, p. 55 [M.A. 6-365].

Cuprovanadinite. E. M. Yanishevsky, 1931. Trans. Geol. Prospecting Service USSR, fasc. 109, p. 19 (купрованадинит). A

variety of vanadinite containing copper (CuO 1.55%) from Kazakhstan. Not the cuprovanadite (= chileite) of — Adam, 1869.

Dakeite. E. S. Larsen, 1937. *Mineralogist*, Portland, Oregon, vol. 5, no. 2, p. 7. E. S. Larsen and F. A. Gonyer, *Amer. Min.*, 1937, vol. 22, p. 561. A complex mineral $3\text{CaCO}_3 \cdot \text{Na}_2\text{SO}_4 \cdot \text{UO}_3 \cdot 10\text{H}_2\text{O}$, occurring as green-yellow nodules in surface efflorescences of gypsum in Wyoming. Named after Dr. Henry C. Dake, of Portland, Oregon. [M.A. 6-488.]

Dashkesanite. G. A. Krutov, 1936. *Bull. Acad. Sci. URSS, Cl. Sci. Mat. Nat., Sér. Géol.*, p. 341 (дашкесанит, хлорсодержащий амфибол), p. 371 (dashkessanite, chlorine amphibole). A chlorine amphibole of the hastingsite group, containing Cl 7.24%. Named from the locality, Dashkesan, Transcaucasia. [M.A. 6-438.]

Earlandite. F. A. Bannister, 1936. *Discovery Reports*, Cambridge, vol. 13, p. 67. Hydrated calcium citrate, $\text{Ca}_3(\text{C}_6\text{H}_5\text{O}_7)_2 \cdot 4\text{H}_2\text{O}$, as small warty nodules in deep-sea deposits from the Weddell Sea, Antarctic. Named after Mr. Arthur Earland, of London, who isolated the material. [M.A. 6-341.]

Eisenhypersthen. M. Saxén, 1925. *See* Iron-hypersthene.

Eisenstrigovit. *Neues Jahrb. Min., Ref. I*, 1936, p. 467. German translation of Iron-strigovite (q.v.).

Enelectrite. T. L. Walker, 1934. *Univ. Toronto Studies, Geol. Ser.*, no. 36, p. 11; *Amer. Min.*, 1935, vol. 20, p. 195. Minute colourless monoclinic crystals, presumably a hydrocarbon, embedded in amber (ἤλεκτρον) from Manitoba. [M.A. 6-52.]

Epileucite. A. N. Zavaritzky, 1934. *Compt. Rend. Acad. Sci. URSS*, 1934, vol. 3, p. 645 (эпилейцит), p. 650 (epileucite). Pseudomorphs of orthoclase and muscovite after leucite, in distinction from pseudoleucite (pseudomorphs of orthoclase and nepheline after leucite). [M.A. 6-418.]

Epi-sericite. J. Jakob, 1933. *Schweiz. Min. Petr. Mitt.*, vol. 13, p. 82 (Epi-Sericit). Sericite formed in the epi- (upper) zone of metamorphism of U. Grubenmann (1907).

Ermakite. P. L. Dravert, 1926. *Bull. West Siberian Branch Russ. Geogr. Soc. (Изв. Зап.-Сиб. отд. Русс. Географ. Общ.)*, vol. 5, p. 137 (Ермакит, Ermakite). A brown waxy clay with the approxi-

mate composition $(Al,Fe)_2O_3 \cdot 3SiO_2 \cdot 2H_2O$, from the banks of the Irtysh river near Omsk, Siberia. Named after Ermaka Timofeevicha (Ермака Тимофеевича), who met her death in this river in the year 1584.

Eutectoperthite, Eutecto-oranite. H. L. Alling, 1921. See Hypoperthite.

Feraxinite. A. N. Winchell, 1927. Elements of optical mineralogy, 2nd edit., New York, p. 254. A rather unnecessary contraction of ferroaxinite (5th List).

Ferri-beidellite. O. M. Shubnikova and D. V. Yuferov, Spravochnik po novym mineralam, Leningrad, 1934 (ферри-бейделлит, ferri-, iron-, Eisen-beidellite). Translation of Iron-beidellite (11th List).

Ferrichrompicotite, Ferrichromspinel. A. G. Betekhtin, 1934. See Alumochromite.

Ferri-halloysite. N. E. Efremov, 1936. Мém. Soc. Russ. Min., ser. 2, vol. 65, p. 225 (ферри-галлуазит), p. 232 (ferri-halloysite). A variety of halloysite containing iron.

Ferri-paraluminite. P. P. Pilipenko, 1927. [Ученые Записки Саратов. Университета, Mem. Univ. Saratov, 1927, vol. 6, p. 171.] O. M. Shubnikova and D. V. Yuferov, Spravochnik po novym mineralam, Leningrad, 1934, p. 149 (Железистый паралюминит, Ferri-paraluminite, Eisenparaluminite), p. 164 ('Ferro-paraluminite'). Abstract in Neues Jahrb. Min., Ref. I, 1928, p. 298 (Eisenparaluminite). A variety of paraluminite containing iron (Fe_2O_3 13.39%), $2(Al,Fe)_2O_3 \cdot SO_3 \cdot 15H_2O$; deposited as a greenish-grey slime (earthy when air-dried), together with paraluminite and aluminite, by springs from Cretaceous rocks near Saratov.

Ferri-sicklerite. P. Quensel, 1937. Geol. För. Förh. Stockholm, vol. 59, p. 85 (ferri-sicklerite). An intermediate member of the series triphylite-ferri-sicklerite-heterosite in which iron predominates over manganese, the parallel series in which manganese predominates being lithiophilite-sicklerite (Mn-sicklerite)-purpurite. [M.A. 6-485.]

Ferro-åkermanite. O. M. Shubnikova and D. V. Yuferov, Spravochnik po novym mineralam, Leningrad, 1934, p. 71 (ферро-акерманит, ferro-, iron-, Eisen-åkermanite). Translation of Eisen-Åkermanit (9th List) and Iron-åkermanite (10th List).

Ferro-chrysotile. F. V. Syromyatnikov, 1934. Bull. Soc. Nat. Moscou, ser. 2, vol. 42 (Sect. Geol., vol. 12), p. 568 (ферро-хризотил), p. 574 (ferro-chrysotile). The molecule $H_4Fe_3Si_2O_9$ present in ferruginous chrysotile. [M.A. 6-259.]

Ferrodolomite. A. N. Winchell, 1927. See Magnesiodolomite.

Fluor-amphibole. N. L. Bowen and J. F. Schairer, 1935. Amer. Min., vol. 20, p. 543 (fluor-amphiboles). Artificial $F_2R_7'(Si_4O_{11})_2$ with fluorine replacing hydroxyl of hydroxy-amphibole $[(OH)_2R_7'(Si_4O_{11})_2 = H_2R_7'(SiO_3)_8]$. [M.A. 6-353.]

Fluor-annite, Fluor-biotite, &c. D. P. Grigoriev, 1935. Мém. Soc. Russ. Min., ser. 2, vol. 64, pp. 69, 70, 79. The following names are applied to magnesium-iron-micas :

Fluor-annite (фтор-аннит), $F_2KFe_3''(AlSi_3)O_{10}$.

Fluor-biotite (фтор-биотит), $F_2K(Mg, Fe'')_3(AlSi_3)O_{10}$.

Fluor-phlogopite (фтор-флогопит), $F_2KMg_3(AlSi_3)O_{10}$.

Fluor-siderophyllite (фтор-сидерофиллит), $F_2KFe_3''[(Al, Fe''')Si_3]O_{10}$.

Fluor-lepidomelane (фтор-лепидомелан), $F_2K(Mg, Fe'')_3[(Al, Fe''')Si_3]O_{10}$.

Fluor-meroxene (фтор-мероксен), $F_2KMg_3[(Al, Fe''')Si_3]O_{10}$.

Similarly, Hydroxyl-annite (гидроксил-аннит), $(OH)_2KFe_3''(AlSi_3)O_{10}$, Hydroxyl-biotite, Hydroxyl-phlogopite, Hydroxyl-siderophyllite, Hydroxyl-lepidomelane, and Hydroxyl-meroxene, with $(OH)_2$ in place of F_2 .

Fluorene. R. Rost, 1935. Věda Přírodní, Praha, vol. 16, p. 204 (fluoren). An organic compound ($C_{13}H_{10}$) formed by the burning of pyritous shale in Bohemia. [M.A. 6-357.]

Gahnospinel. B. W. Anderson and C. J. Payne, 1937. Min. Mag., vol. 24, p. 554. A gem magnesium-zinc-spinel containing ZnO up to 18.2 %, approaching gahnite in composition.

Gainite. P. N. Chirvinsky, Materials Geochem. Khibina tundra, Acad. Sci. USSR, 1935, p. 86 (гаинит), p. 88 (Gainit). Error for hainite (J. Blumrich, 1893; 1st List), due to the transliteration into Russian and back again. See Calcium-rinkite.

Gokaite. T. Tomita, 1936. Journ. Shanghai Sci. Inst., sect. 2, vol. 2, p. 99 (gokaite). A clinohypersthene with small optic axial angle Named from the locality, Goka, Oki islands, Japan.

Goureite. A. Lacroix, 1934. *Mém. Acad. Sci. Paris*, vol. 61, p. 320 (gouréite). An undetermined mineral occurring as pale yellow, skeletal, optically uniaxial crystals in microgranite from Gouré (= Gure), west of Lake Chad, French West Africa. Named from the locality. The mineral was first mentioned, but not named, in *Compt. Rend. Acad. Sci. Paris*, 1905, vol. 140, p. 22. [M.A. 6-124.]

Greinerite. A. K. Boldyrev, 1928. *Kurs opisatelnoi mineralogii*, Leningrad, 1928, part 2, p. 162 (Грейнерит). O. M. Shubnikova and D. V. Yufarov, *Spravochnik po novym mineralam*, Leningrad, 1934, p. 48 (Грейнерит, Greinerite). A 'brown-spar' or mangandolomite, $(\text{Mg}, \text{Mn})\text{Ca}(\text{CO}_3)_2$, from Greiner, Zillertal, Tyrol. Named from the locality.

Halotri-alunogen. I. Sukanuma, 1932. [Tokyo Buturigakkô-Zassi, vol. 41, p. 250.] Z. Harada, *Journ. Fac. Sci. Hokkaido Univ.*, Sapporo, Ser. 4, 1936, vol. 3, p. 351 (Halotri-Alunogen). A mixture of halotrichite and alunogen.

Headdenite. P. Quensel, 1937. *Geol. För. Förh. Stockholm*, vol. 59, p. 95 (headdenite). A phosphate mineral $\text{Na}_2\text{O} \cdot 0.5(\text{Fe}, \text{Mn}, \text{Ca})\text{O} \cdot 2\text{P}_2\text{O}_5$, from South Dakota, analogous to varulite (q.v.) but with iron predominating over manganese. Named after William Parker Headden (1850-1932) of Colorado. [M.A. 6-486.]

Herzenbergite. P. Ramdohr, 1934. *Neues Jahrb. Min., Abt. A*, Beil.-Bd. 68, p. 293; *Zeits. Krist.*, 1935, vol. 92, p. 186 (Herzenbergit). W. Hofmann, *Fortschr. Min. Krist. Petr.*, 1935, vol. 19, p. 30; *Zeits. Krist.*, 1935, vol. 92, p. 161. To replace the pre-occupied name kolbeckine (R. Herzenberg, 1932; 13th List) for tin sulphide from Bolivia, identical with artificial SnS. Named after Dr. Robert Herzenberg, of Oruro, Bolivia. [M.A. 6-261, 262, 368.]

Heterophyllite. A. Mário de Jesus, [1936]. *Com. Serv. Geol. Portugal*, vol. 19 (for 1933), p. 126 (Heterofilite). A variety of biotite with a formula, $\text{H}_3\text{K}_4\text{Fe}_4\text{Al}_6\text{Si}_8\text{O}_{35}$, differing slightly from siderophyllite. From Mangualde, Portugal. [M.A. 6-441.]

Khlopinite. See Khlopinite.

Hsihutsunite. C. C. Wang, 1936. *Bull. Geol. Soc. China*, vol. 15, p. 94 (Hsihutsunite). A variety of rhodonite containing 6.24% MgO. Named from the locality, Hsihutsun, prov. Chih-li, China. [M.A. 6-442.]

Humite. R. Potonié, 1924. Kohlenpetrographie, Berlin, p. 18 (Humite, *pl.*). Coals derived from humic materials. Not the humite of J. L. Bournon, 1813.

Hydro-amphibole. W. Q. Kennedy and B. E. Dixon, 1936. Zeits. Krist., vol. 94, p. 280. An amphibole containing more water (5.78%) than that required by the theoretical formula. [M.A. 6-443.]

Hydrobismutite. K. A. Nenadkevich, 1917. Bull. Acad. Sci. Petrograd, ser. 6, vol. 11, p. 448 (*гидробисмутит*). Hydrated bismuth carbonate, $\text{Bi}_2\text{O}_3 \cdot \text{CO}_2 \cdot 2-3\text{H}_2\text{O}$, containing more water than bismutite; from Transbaikal, Siberia.

Hydrobraunite, Hydroxybraunite, &c. A. K. Boldyrev, 1928. Kurs opisatelnoi mineralogii, Leningrad, 1928, part 2, p. 97. O. M. Shubnikova and D. V. Yuferov, Spravochnik po novym mineralam, Leningrad, 1934, pp. 44-45. The following are given as members of the psilomelane and wad group with the general formula $k\text{MnO} \cdot l\text{MnO}_2 \cdot n\text{H}_2\text{O}$: Hydrobraunite (Гидробраунит), Hydroxybraunite (Гидроксибраунит), Hydrohausmannite (Гидрогаусманнит), Hydro-manganite (Гидроманганит), Hydromanganosite (Гидроманганозит), and Hydropyrolusite (Гидропиролозит).

Hydrohetaerolite. C. Palache, 1928. Amer. Min., vol. 13, p. 308; Prof. Paper U.S. Geol. Survey, 1935, no. 180, pp. 49, 53. A mineral from New Jersey and Colorado previously described as hetaerolite ($\text{ZnO} \cdot \text{Mn}_2\text{O}_3$), but distinct from this in containing some water, the formula being $2\text{ZnO} \cdot 2\text{Mn}_2\text{O}_3 \cdot \text{H}_2\text{O}$. It is perhaps tetragonal, like hetaerolite. [M.A. 6-261.]

Hydroxy-amphibole. N. L. Bowen and J. F. Schairer, 1935. Amer. Min., vol. 20, p. 547 (hydroxy-amphiboles). See Fluor-amphibole.

Hydroxyl-annite, Hydroxyl-biotite, &c. D. P. Grigoriev, 1935. See Fluor-annite.

Hyperperthite, Hyperoranite. H. L. Alling, 1921. See Hypoperthite.

Hypoperthite, Hypo-oranite, &c. H. L. Alling, Journ. Geol. Chicago, 1921, vol. 21, pp. 234, 253, 254. Hypoperthite, Eutectoperthite, and Hyperperthite (Hyperthite) for intermediate members

of the Or-Ab series. Hypo-oranite, Eutecto-oranite, and Hyperoranite for the Or-An (oranite) series. Paraperthite and Para-oranite contain also some An and Ab respectively.

Igmerald. M. Jaeger and H. Espig, 1935. Deutsche Goldschmiede-Zeitung, vol. 38, p. 347 (Igmerald). W. F. Eppler, *ibid.*, 1935, vol. 38, no. 15, p. —. B. W. Anderson, *Gemmologist*, London, 1935, vol. 4, pp. 212, 295. H. Espig, *Zeits. Krist.*, 1935, vol. 92, p. 387 (synthetische Smaragd). Trade-name for artificial emerald made by the I. G. [Interessengemeinschaft] Farbenindustrie at Bitterfeld, Germany. Named from I. G. and emerald. [M.A. 6-200, 497.]

Iron-hypersthene. M. Saxén, 1925. *Fennia*, Soc. Geogr. Fenniae, Helsingfors, vol. 45, no. 11, p. 18 (Järnhypersten), p. 39 (Eisenhypersthen). N. Sundius, *Årsbok Sveriges Geol. Undersök.*, 1932, vol. 26, no. 2, p. 3 (Eisenhypersthen). An iron-rich hypersthene (FeO 42%), $MgSiO_3 \cdot 3FeSiO_3$. See Orthoferrosilite.

Iron-kaolinite. M. H. Hey, 1936. *Min. Abstr.*, vol. 6, p. 234. 'Many nontronites appear to be ferruginous beidellites, but some seem to be iron-kaolinites.' Compare iron-beidellite (11th List).

Iron-monticellite. D. S. Belyankin, K. M. Feodotyev, and C. S. Nikogosyan, 1934. *Neues Jahrb. Min., Abt. A, Beil.-Bd.* 68, p. 337 (Eisen-Monticellit). The molecule $Ca_2SiO_4 \cdot Fe_2SiO_4$, as distinct from magnesium-monticellite ($Ca_2SiO_4 \cdot Mg_2SiO_4$) and mangan-monticellite ($Ca_2SiO_4 \cdot Mn_2SiO_4$).

Iron-pyroxene. C. N. Fenner, 1931. *Min. Mag.*, vol. 22, pp. 549, 559. A general term for pyroxenes (hedenbergite, augite, &c.) rich in iron.

Iron-rhodonite. Translation of Järnrhodonit, Eisenrhodonit (M. Weibull, 1884). The original mineral, however, was proved to be sobralite (= pyroxmangite) by N. Sundius, 1931 [M.A. 4-527, 5-143], who transferred the name to a mineral isomorphous with rhodonite. The slag mineral called iron-rhodonite by J. H. Whiteley and A. F. Hallimond, 1919 [M.A. 1-164] has also been identified with pyroxmangite by C. E. Tilley [M.A. 6-529] and M. Perutz [Min. Mag. 24-573].

Iron-strigovite. S. Palmqvist, 1935. *Meddel. Lunds Geol.-Min. Inst.*, no. 60, p. 167 (Iron-Strigovite). The iron silicate constituent

of Liassic oolitic iron ores from Scania, Sweden, with the composition $2(\text{Fe},\text{Mg})\text{O} \cdot (\text{Fe},\text{Al})_2\text{O}_3 \cdot 2\text{SiO}_2 \cdot 2\text{H}_2\text{O}$, as calculated from bulk analyses of the ores. This composition is compared with G. Tschermak's hypothetical strigovite molecule $\text{H}_4\text{Mg}_2\text{Al}_2\text{Si}_2\text{O}_{11}$ of the chlorite group, and the fact that actual analyses of strigovite show the presence of much iron is overlooked. [M.A. 6-368.]

Iron-wollastonite. C. E. Tilley, 1937. Amer. Min., vol. 22, p. 727 (Iron wollastonite); Min. Mag., 1937, vol. 24, p. 572 (iron-wollastonites). Wollastonite with FeSiO_3 in solid solution, from Co. Antrim.

Ishkyldite. F. V. Syromyatnikov, 1934. Bull. Soc. Nat. Moscou, ser. 2, vol. 42 (Sect. Géol., vol. 12), pp. 566, 568 (ишкильдит), p. 574 (ishkyldite); Amer. Min., 1936, vol. 21, p. 48 (ishkyldite). A variety of chrysotile-asbestos differing from α -chrysotile in optical characters and X-ray pattern and with an excess of silica, $\text{H}_{20}\text{Mg}_{15}\text{Si}_{11}\text{O}_{47}$. Named from the locality, Ishkyldino, Volga, Russia. [M.A. 6-259.]

Jachymovite. R. Nováček, 1935. Věstník Král. České Spol. Nauk, Cl. 2, for 1935, no. 7, p. 28 (jáchymovite); Čapovis Národního Musea, Praha, 1935, vol. 109, p. 100. Hydrated silicate of uranium and copper, $\text{CuO} \cdot 2\text{UO}_3 \cdot 2\text{SiO}_2 \cdot 6\text{H}_2\text{O}$, afterwards proved to be identical with cuprosklodowskite (13th List). Named from the locality, Jáchymov (= Joachimsthal), Bohemia. [M.A. 6-149, 345.]

Japanite. I. Iwasa, 1877. [Gakugéisirin, no. 57.] Z. Harada, Journ. Fac. Sci. Hokkaido Univ., Sapporo, Ser. 4, 1936, vol. 3, p. 324 (Japanit). An incorrectly determined mineral from Japan, afterwards (Z. Sasamoto, 1895) identified with pennine.

Järnhypersten. M. Saxén, 1925. See Iron-hypersthene.

Kalianorthoklas. Z. Harada, Journ. Fac. Sci. Hokkaido Univ., Sapporo, Ser. 4, 1936, vol. 3, p. 265 (Kalianorthoklas). German translation of Potash-anorthoclase (13th List). Identical with hyp Perthite (q.v.).

Kali-montmorillonit. See Potash-montmorillonite.

Kasoite. T. Yoshimura, 1936. Journ. Geol. Soc. Japan, vol. 43, p. 877 (Japanese). A variety of barium-felspar associated with celsian and hyalophane as gangue minerals in the Kaso mine, Tochigi, Japan. Named from the locality. [M.A. 6-489.]

Khlopinite. I. E. Starik, 1933. Problems of Soviet Geology, vol. 3, no. 7, p. 74 (хлопинит), p. 78 (chlopinite); Rep. Intern. Geol. Congress, xvi (1933), U.S.A., 1936, vol. 1, p. 217 (chlopinite). O. M. Shubnikova and D. V. Yuferov, Report on new minerals, Leningrad, 1934, p. 104 (Хлопинит, Hlopinite). Titanio-niobate of yttrium, uranium, thorium, and iron, $M_2Nb_2TiO_9 \cdot H_2O$; black, optically isotropic, from Transbaikal. Named after Professor V. G. Khlopin (В. Г. Хлопин). [M.A. 6-258, 518.]

Kobalt-Oligonspat. R. Reissner, 1935. See Cobalto-sphaerosiderite.

Kolloid-calcite, Kolloid-magnesite, Kolloid-siderite. A. K. Boldyrev, 1928. Kurs opisatelnoi mineralogii, Leningrad, 1928, part 2, p. 163 (Коллоид-кальцит, Коллоид-магнезит, Коллоид-сидерит). O. M. Shubnikova and D. V. Yuferov, Spravochnik po novym mineralam, Leningrad, 1934, p. 48 (коллоид-кальцит, kolloid-calcite; коллоид-магнезит, kolloid-magnesite; коллоид-сидерит, kolloid-siderite). Colloidal varieties of minerals of the calcite group.

Kondrikovite. I. D. Borneman-Starynkevich, 1933. Khibina Apatite, Leningrad, 1933, p. 114 (кондрицит); Materials Geochem. Khibina tundra, Acad. Sci. USSR, 1935, pp. 54, 56 (кондриковит). Natrolite with microscopic inclusions of a rinkite-like mineral; apparently an alteration product of lovchorrite, which it encrusts; from the Kola peninsula, Russia. Named kondrikite, afterwards corrected to kondrikovite, after Mr. V. I. Kondrikov, President of the Apatite Trust in the Kola peninsula. [M.A. 6-341-343.]

Kupferlovčorrit, Kupferwudjavrit. See Cuprolovchorrite.

Labite. N. E. Efremov, 1936. Mém. Soc. Russ. Min., ser. 2, vol. 65, p. 108 (лабит), p. 117 (labite). A yellowish-green pilolite-like mineral, consisting of matted fibres, probably orthorhombic, with a composition, $H_2MgSi_3O_8 \cdot H_2O$, near that of the picrocollite (11th List) end-member of the pilolite-palygorskite group. Named from the locality, Laba river, northern Caucasus. [M.A. 6-439.]

Lindgrenite. C. Palache, 1935. Amer. Min., vol. 20, pp. 187, 484. Basic molybdate of copper, $2Cu_2MoO_4 \cdot Cu(OH)_2$, as green monoclinic crystals from Chile. Named after Professor Waldemar Lindgren (1860-), of Cambridge, Massachusetts. [M.A. 6-54, 147.]

Lubumbashite. L. De Leenheer, 1934. *Natuurwet. Tijds. Gent*, vol. 16, pp. 237, 240 (Lubumbashiet). Colloidal hydroxide of cobalt (and copper), earlier compared with heterogenite (A. Schoep, 1921; M.A. 1-243). Named from the locality, Lubumbashi, Katanga, Belgian Congo. [M.A. 6-52.]

Magnesia-cordierite. H. Shibata, 1936. *Japanese Journ. Geol. Geogr.*, vol. 13, p. 227 (magnesia-cordierite). Iron-free cordierite $H_2Mg_4Al_8Si_{10}O_{37}$, as distinct from iron-cordierite $H_2Fe_4Al_8Si_{10}O_{37}$ (10th List). [M.A. 6-479.]

Magnesi dolomite. A. N. Winchell, 1927. *Elements of optical mineralogy*, part 2, 2nd edit., p. 75. $CaMg(CO_3)_2$ is distinguished as magnesi dolomite; $CaFe(CO_3)_2$ as ferrodolomite [= iron-dolomite, 11th List]; and $CaMn(CO_3)_2$ as mangandolomite [10th List]. These are given as varieties of the mineral dolomite, while in the text it is stated that dolomite is a rock.

Magnesiowüstite. N. L. Bowen and J. F. Schairer, 1935. *Amer. Journ. Sci.*, ser. 5, vol. 29, pp. 151, 194 (magnesiowüstites). Solid solutions of MgO and FeO, ranging from pure periclase (cubic MgO) to 78% FeO. But wüstite [13th List] was not defined as FeO. [M.A. 6-352.]

Magnesium-berzeliite. W. Bubeck, 1934. *Geol. För. Förh. Stockholm*, vol. 56, p. 526 (Magnesium-Berzeliit). W. Bubeck and F. Machatschki, *Zeits. Krist.*, 1935, vol. 90, p. 44 (Mg-Berzeliit). $(Ca,Na)_3Mg_2(AsO_4)_3$, as distinct from $(Ca,Na)_3Mn_2(AsO_4)_3$, mangan-berzeliite (2nd List). [M.A. 6-183.]

Magnesium-chlorophoenicite. C. Palache, 1935. *Prof. Paper U.S. Geol. Survey*, no. 180, p. 123 (Magnesium chlorophoenicite). Basic arsenate of magnesium and manganese, $(Mg,Mn)_2As_2O_8 \cdot 7(Mg,Mn)(OH)_2$ monoclinic, differing from chlorophoenicite (10th List) in containing magnesium in place of zinc; from Franklin Furnace, New Jersey. [M.A. 6-261.]

Magnesium-monticellite. *See* Iron-monticellite.

Magnesium-zinc-spinel. B. W. Anderson and C. J. Payne, 1937. *See* Gahnospinel.

Magnoferrichromite. A. G. Betekhtin, 1934. *See* Alumochromite.

Manganankerite. S. Koiké, 1935. [Journ. Japanese Assoc. Min. Petr. Econ. Geol., vol. 14, p. 216 (Japanese).] Z. Harada, Journ. Fac. Sci. Hokkaido Univ., Sapporo, Ser. 4, 1936, vol. 3, p. 358 (Manganankerit), p. 361 (Mangan-Ankerit). Pink ankerite containing MnO 8.60 %, from Japan.

Manganese-zoisite. L. L. Shabynin, 1934. Mém. Soc. Russ. Min., ser. 2, vol. 63, p. 456 (марганцовый цоизит), p. 457 (Mn-цоизит), p. 459 (manganese zoisite), p. 460 (Mn-zoisite). A pink zoisite containing MnO 0.47 %. [M.A. 6-437.]

Mangan-monticellite. See Iron-monticellite.

Manganomelane. F. Klockmann, 1922. Lehrbuch der Mineralogie, 7-8th edit., p. 422 (Manganomelan). Group name for gel forms of MnO₂, including psilomelane, wad, &c. Named from manganese and *μελᾶς*, -ᾶνος, black. [M.A. 6-53.]

Mangan-wollastonite. V. M. Goldschmidt, 1911. Skrifter Videnskap. Kristiania, Mat.-nat. Kl., 1911, vol. 1, no. 1, p. 331 (Manganwollastonit). A variety of wollastonite containing manganese (MnO 7 %).

Mangualdite. A. Mário de Jesus, [1936]. Com. Serv. Geol. Portugal, vol. 19 (for 1933), p. 141 (Mangualdite). Phosphate of manganese and calcium, 3RO.P₂O₅, as olive-green orthorhombic (?) crystals. Named from the locality, Mangualde, Portugal. [M.A. 6-441.]

Marahuite. O. A. Derby, 1907. Journ. Geol. Chicago, vol. 15, p. 231 (Marahuite). O. Stutzer, Zeits. Deutsch. Geol. Gesell., 1935, vol. 87, p. 616 (Marahunit). An earthy bituminous lignite containing algae and corresponding with boghead coal. Named from the locality, Marahú, Bahia, Brazil.

Maxixe-aquamarine, Maxixe-beryl. G. O. Wild, Centr. Min., Abt. A, 1933, p. 38 (Maxixe-Aquamarine, *pl.*); K. Schlossmacher and H. Klang, Zentr. Min., Abt. A, 1935, p. 37; W. Roebbling and H. W. Trommau, *ibid.*, p. 134 (Maxixeberyll). A gem beryl of unusual blue colour and pleochroism from Maxixe mine, Minas Geraes, Brazil. The mine, now abandoned, was named from 'machiko' (a gherkin), because of the rugged corroded surface of the beryl, and 'maxixe' is apparently a German modification of this. [M.A. 5-295; 6-201.]

Melnikovite-pyrite. H. Schneiderhöhn and P. Ramdohr, 1931. Lehrbuch der Erzmikroskopie, Berlin, vol. 2, p. 170 (Melnikovit-Pyrit), p. 173 (Melnikovitpyrit). Shelly concentric mixtures of pyrite and marcasite crystallized from a gel, which is assumed to be identical with melnikovite (6th List).

Mercallite. G. Carobbi, 1935. Rend. R. Accad. Lincei, Cl. Sci. fis. mat. nat. Roma, ser. 6, vol. 21, sem. 1, p. 385 (mercallite). Potassium hydrogen sulphate, KHSO_4 , as minute orthorhombic crystals in a saline efflorescence from Vesuvius. Named after Prof. Giuseppe Mercalli (1850–1914), a former Director of the Vesuvian Observatory. [Misenite, described by A. Scacchi in 1849 as KHSO_4 , has been proved to be monoclinic $\text{K}_2\text{SO}_4 \cdot 6\text{KHSO}_4$.] [M.A. 6–148.]

Mesquitelite. A. Mário de Jesus, [1936]. Com. Serv. Geol. Portugal, vol. 19 (for 1933), p. 136 (Mesquitelite). A clayey alteration product of feldspar with a formula, $(\text{Mg,Ca})\text{O} \cdot 2\text{Al}_2\text{O}_3 \cdot 9\text{SiO}_2 \cdot 5\text{H}_2\text{O}$, slightly different from that of montmorillonite. Named from the locality, Mesquitela, near Mangualde, Portugal. [M.A. 6–441.]

Meta-bentonite. C. S. Ross, 1928. Bull. Amer. Assoc. Petroleum Geol., vol. 12, p. 164 (meta-bentonites). V. T. Allen, Journ. Geol. Chicago, 1932, vol. 40, p. 259. Metamorphosed bentonite as altered volcanic tuffs in Palaeozoic rocks.

Metagreenalite. F. Jolliffe, 1935. Amer. Min., vol. 20, pp. 406, 411. The crystalline equivalent of the amorphous greenalite (4th List), with the composition $3\text{FeO} \cdot 4\text{SiO}_2 \cdot 2\text{H}_2\text{O}$, occurring as green granules in the iron ores of Minnesota. J. W. Gruner, Amer. Min., 1936, vol. 21, p. 449. considers this to be coarser grained greenalite with the composition $9\text{FeO} \cdot \text{Fe}_2\text{O}_3 \cdot 8\text{SiO}_2 \cdot 8\text{H}_2\text{O}$. [M.A. 6–152, 480; Min. Mag. 24–434.]

Metahalloysite. M. Mehmel, 1935. Zeits. Krist., 1935, vol. 90, p. 35; Chemie der Erde, 1937, vol. 11, p. 9 (Metahalloysit). Halloysite ($\text{H}_4\text{Al}_2\text{Si}_2\text{O}_9 + 2\text{H}_2\text{O}$) when partially dehydrated at 50°C . loses $2\text{H}_2\text{O}$, then having the kaolin formula $\text{H}_4\text{Al}_2\text{Si}_2\text{O}_9$, but with a distinct crystal-structure. [M.A. 6–181.]

Metakernite. H. Menzel, H. Schulz, and H. Deckert, 1935. Die Naturwissenschaften, vol. 23, p. 832 (Metakernit). The amorphous

dihydrate, $\text{Na}_2\text{B}_4\text{O}_7 \cdot 2\text{H}_2\text{O}$, produced artificially by the partial dehydration of kernite ($\text{Na}_2\text{B}_4\text{O}_7 \cdot 4\text{H}_2\text{O}$).

Metataenite. J. D. Buddhue, 1936. *See* Orthotaenite.

Metatriplite. A. Mário de Jesus, [1936]. *Com. Serv. Geol. Portugal*, vol. 19 (for 1933), p. 146 (Metatriplite). A black alteration product of triplite with the composition $6\text{MnO} \cdot 3\text{Fe}_2\text{O}_3 \cdot 3\text{P}_2\text{O}_5 \cdot 2\text{RF}_2 \cdot 4\text{H}_2\text{O}$. From Mangualde, Portugal. [M.A. 6-442.]

Mindigite. L. De Leenheer, 1934. *Natuurwet. Tijdschrift, Gent*, vol. 16, pp. 237, 240 (mindigiet), p. 241 (mindigite). Hydroxide of cobalt and copper, $9\text{Co}_2\text{O}_3 \cdot 2\text{CuO} \cdot 16\text{H}_2\text{O}$, as pitch-black colloidal material, from Mindigi, Katanga, Belgian Congo. Named from the locality. [M.A. 6-52.]

Natronmargarit. C. Hintze, *Handbuch der Mineralogie, Ergänzungsband*, 1936, p. 390. A German form of Soda-margarite (12th List).

Neokaolin. A. E. Fersman, 1935. *Scientific study of Soviet mineral resources*, New York, p. 76 (neokaolin). Kaolin produced artificially from nepheline.

Neopurpurite. A. Mário de Jesus, [1936]. *Com. Serv. Geol. Portugal*, vol. 19 (for 1933), p. 149 (Neopurpurite). An alteration product of lithiophilite, with a formula, $7(\text{Fe}, \text{Mn})_2\text{O}_3 \cdot 5\text{P}_2\text{O}_5 \cdot 4\text{H}_2\text{O}$, slightly different from that of purpurite. From Mangualde, Portugal. [M.A. 6-442.]

Niggliite. D. L. Scholtz, 1936. *Publ. Univ. Pretoria*, 1936, ser. 2, no. 1, p. 184; preprint from *Trans. Geol. Soc. South Africa*, 1937, vol. 39 (for 1936), p. 184. Platinum telluride (PtTe_3 ?) as anisotropic silver-white grains from South Africa. Named after Professor Paul Niggli (1888-) of Zürich. [M.A. 6-440.]

Oborite. T. L. Ho, 1935. *Bull. Geol. Soc. China*, vol. 14, p. 279 (Oborite). An undetermined mineral presumed to contain rare-earths (La, Ce, Yt, Er), as minute grains (rhombohedral) in fluorite from Beiyin Obo, Inner Mongolia. With beiyinite (q.v.), named from the locality. [M.A. 6-151.]

Orthoferrosillite. N. F. M. Henry, 1935. *Min. Mag.*, vol. 24, p. 266; 1937, vol. 24, p. 528. Hypothetical end-member FeSiO_3 of

the enstatite-hypersthene series of orthorhombic pyroxenes. Named from analogy with ferrosillite (H. S. Washington, 1903; 9th List) and clinoferrosillite (q.v.). Synonym of iron-hypersthene (q.v.).

Orthotaenite. J. D. Buddhue, 1936. *Popular Astronomy*, Northfield, Minnesota, vol. 44, p. 512 (orthotaenite). Taenite of the composition Fe_2Ni is called orthotaenite; while material ranging up to Fe_7Ni , due to admixture with kamacite, is called metataenite. [M.A. 6-390.]

Oxide-pearlite. C. Benedicks, 1912. *Compt. Rend. XI Congr. Géol. Internat.* (Stockholm, 1910), 1912, vol. 2, p. 888 (perlit à oxyde). M. Schwarz, *Zentr. Min., Abt. A*, 1937, p. 85 (Oxyd-Perlit). Pearlite in which the lamellae of ferrite (Schwarz says those of cementite) have been altered to iron oxide, occurring as a constituent of the native iron in basalt at Ovivak in Greenland and at Bühl near Kassel in Germany. [M.A. 6-528.]

Padparadschah. A. K. Coomaraswamy, *Administration Reports*, Ceylon, for 1904, part 4, *Mineralogical Survey*, 1905, p. E16 (Padmaragaya). M. Bauer, *Edelsteinkunde*, Leipzig, 2nd edit., 1909, p. 363 (patparachan). R. Brauns, *Künstliche Schmucksteine*, Handwörterbuch der Naturwissenschaften, 1913, vol. 8, p. 968 (Padparadschah). German corruptions (with other variations) of the Sinhalese padmaragaya, from padma, lotus, and raga, colour. A trade-name for reddish-yellow gem corundum, now used more especially for the artificially produced material. [M.A. 6-198.]

Paraperthite, Para-oranite. H. L. Alling, 1921. *See Hypoperthite.*

Parawollastonite. M. A. Peacock, 1935. *Amer. Journ. Sci.*, ser. 5, vol. 30, pp. 495, 525. Monoclinic calcium metasilicate, CaSiO_3 , the name wollastonite being reserved for the more common triclinic modification of this compound. [M.A. 6-260.]

Parkerite. D. L. Scholtz, 1936. *Publ. Univ. Pretoria*, 1936, ser. 2, no. 1, p. 186; preprint from *Trans. Geol. Soc. South Africa*, 1937, vol. 39 (for 1936), p. 186. Nickel sulphide, Ni_2S_3 or NiS_2 , monoclinic, from South Africa. Named after Professor Robert Luling Parker of Zürich. [M.A. 6-440.]

Pholidoïde. K. Smulikowski, 1936. *Arch. Min. Tow. Nauk. Warszaw.* (*Arch. Min. Soc. Sci. Varsovie*), vol. 12, pp. 165 (pholidoïde),

p. 180 (folioid). The group of aluminous glauconites grading into normal (ferruginous) glauconite and occurring in sedimentary rocks. To replace the name phyllite of J. L. Thiébaud (q.v.) and including skolite (q.v.). Named from *φολιδοειδης*, scale-like. Not the pholidolite of G. Nordenskiöld, 1890, although near to this in composition. [M.A. 6-345.]

Phyllite. A general term used by some French authors for the scaly minerals micas, chlorites, and clays (J. de Lapparent, *Leçons de pétrographie*, Paris, 1923, p. 255), and more recently applied to minerals with a layered crystal-structure. J. L. Thiébaud (*Contribution à l'étude des sédiments argilo-calcaires du bassin de Paris*, Nancy, 1925, p. 46) found the phyllitic constituent of marls to be near bravaisite or glauconite in composition. This has since been named pholidoide (q.v.). Phyllite of T. Thomson (1828) is a synonym of ottrelite. Phyllite (C. F. Naumann, 1849), a variant of the French phyllade (A. Brongniart, 1813), is in common use for a slaty-schistose rock. Also a general term for fossil plant leaves.

Plumbodolomite. W. Siegl, 1936. *Min. Petr. Mitt.* (Tschermak), vol. 48, p. 288 (Plumbodolomit). A variety of dolomite containing some lead, from Kreuth, Carinthia. [M.A. 6-529.]

Plumbosynadelphite. C. S. Hurlbut, 1937. *Amer. Min.*, vol. 22, p. 531. A variety of synadelphite containing some lead (PbO 3.24%), forming a red outer zone on colourless crystals of synadelphite. [M.A. 6-488.]

Potash-aegirine. G. T. Faust, *Amer. Min.*, 1936, vol. 21, p. 737 (potassium-aegerite). Translation of Kaliägirin (8th List).

Potash-albite, &c. H. L. Alling, 1921. *Journ. Geol. Chicago*, vol. 29, p. 252 (potash albite, &c.). T. Tomita, *Journ. Shanghai Sci. Inst.*, Sect. 2, 1933, vol. 1, p. 7; 1934, vol. 1, pp. 112, 116 (potash-albite, &c.). Potash-soda-lime feldspar series, including potash-albite, potash-oligoclase (5th List), potash-andesine, potash-labradorite, potash-bytownite, and potash-anorthite, containing more than 10% of the potash component $KAlSi_3O_8$.

Potash-montmorillonite. V. T. Allen, 1932. *Journ. Geol. Chicago*, vol. 40, p. 263 (potash-montmorillonite); abstract in *Neues Jahrb. Min.*, Ref. III, 1933, p. 1174 (Kali-Montmorillonit). A clay

mineral of the meta-bentonites (q.v.) with high potash (K_2O 4-60 %) and low water, from Missouri.

Potash-nepheline. A. Holmes, *Min. Mag.*, 1936, vol. 24, p. 413 (potash-nepheline). A potash-rich nepheline. Not the same as Kalinephelin (Dana), Kali-Nephelin (Hintze), a synonym of kalio-philite.

Pseudo-copiapite. H. Ungemach, 1935. *Bull. Soc. Franç. Min.*, vol. 58, p. 154. A crystallographically aberrant form of copiapite from Chile. [M.A. 6-149.]

Pseudopalaite. A. Mário de Jesus, [1936]. *Com. Serv. Geol. Portugal*, vol. 19 (for 1933), p. 151 (Pseudopalaite). An alteration product of lithiophilite, with a formula, $6(Mn,Fe)O.2P_2O_5.5H_2O$, slightly different from that of palaite. From Mangualde, Portugal. [M.A. 6-442.]

Reniformite. O. M. Shubnikova and D. V. Yuferov, Report on new minerals, Leningrad, 1934, p. 30 (Рениформит, Reniformite). The correct spelling of reniforite (11th List), since the name evidently has reference to the reniform structure of the mineral. The mineral has since been proved to be identical with jordanite (M. Watanabé and N. Nakano, *Journ. Japanese Assoc. Min. Petr. Econ. Geol.*, 1936, vol. 15, p. 216).

Reposite. E. Grill, 1935. *Periodico Min. Roma*, vol. 6, p. 23. Phosphate of iron, manganese, and calcium, $(Fe,Mn,Ca)_3(PO_4)_2$, in pegmatite from Lake Como. Evidently identical with graftonite. Named after Emilio Repositi (1876-1931), Professor of Mineralogy, University of Torino. [M.A. 6-52.]

Roweite. H. Berman and F. A. Gonyer, 1937. *Amer. Min.*, vol. 22, p. 301. Hydrated borate $H_2(Mn,Mg,Zn)Ca(BO_3)_2$ as light-brown orthorhombic crystals, differing from sussexite in containing calcium. Named after Mr. George Rowe, a mine captain at Franklin Furnace, New Jersey, where he collected the mineral. [M.A. 6-488.]

Sahlinite. G. Aminoff, 1934. *Geol. För. Förh. Stockholm*, vol. 56, p. 493 (Sahlinite). Very basic chloro-arsenate of lead, $12PbO. As_2O_5.2PbCl_2$, as yellow monoclinic scales, from Långban, Sweden. Named after Dr. Carl Sahlín, formerly manager of the iron works at Laxå, Sweden. [M.A. 6-51.]

Sapropelite. H. Potonié, 1906. Abhand. Preuss. Geol. Landesanst., no. 49, pp. 12, 21 (Sapropelite, *pl.*). R. Potonié, Kohlenpetrographie, Berlin, 1924, p. 4. Coals derived from algal materials. Named from *σαπρός*, putrid, and *πηλός*, mud.

Scheteligite. H. Bjørlykke, 1937. Norsk Geol. Tidsskrift, vol. 17, p. 47 (scheteligite). $(Ca, Fe, Mn, Sb, Bi, Yt)_2(Ti, Ta, Nb, W)_2(O, OH)_7$, as black orthorhombic (?) crystals in pegmatite from Iveland, Norway. Named after Professor Jakob Grubbe Cock Schetelig (1875–1935) of Oslo. [M.A. 6-487.]

Seminephrite. F. J. Turner, 1935. Trans. Roy. Soc. New Zealand, vol. 65, p. 190 (Seminephrites). The New Zealand 'greenstones' include besides interfelted fibrous nephrite also more coarsely crystalline tremolite as acicular prisms and sheaves of parallel fibres. The term is introduced rather as a rock-name for forms intermediate between nephrite and tremolite-schist. [M.A. 6-501.]

Serpentine-jade. R. Brauns, 1929. Deutsche Goldschmiede-Zeitung, vol. 32, nos. 3, 13; Handwörterbuch der Naturwissenschaften, 2nd edit., 1933, vol. 8, p. 1094 (Serpentin-Jade). A serpentine from China resembling jade, used as an ornamental stone [cf. bowenite]. Other jade-like minerals are distinguished as Garnet-jade (Granat-Jade, Transvaal-Jade) and Vesuvian-Jade (= Californite, 4th List).

Skolite. K. Smulikowski, 1936. Arch. Min. Tow. Nauk. Warszaw. (Arch. Min. Soc. Sci. Varsovie), vol. 12, p. 145 (Skolite), p. 179 (Skolit). A dark green, finely scaly mineral, $H_4K(Mg, Fe'', Ca)(Al, Fe''')_3Si_6O_{20} \cdot 4H_2O$, of the glauconite group and close to bravaisite, occurring in sandstone at Skole, eastern Carpathians, Poland. Named from the locality. [M.A. 6-345.]

Sosmanite. H. Schneiderhöhn and P. Ramdohr, 1931. Lehrbuch der Erzmikroskopie, vol. 2, p. 537 (Sosmanit). Synonym of maghemite (P. A. Wagner, 1927; 12th List) for magnetic ferric oxide ($\gamma\text{-Fe}_2\text{O}_3$). Named after Dr. Robert Browning Sosman (1881–), formerly of the Geophysical Laboratory, Washington, D.C., who described the mineral in 1925. [M.A. 3-217.]

Steigerite. E. P. Henderson, 1935. Amer. Min., vol. 20, p. 769. Hydrated vanadate of aluminium, $Al_2O_3 \cdot V_2O_5 \cdot 6\frac{1}{2}H_2O$, as a canary-yellow amorphous powder in sandstone from Colorado. Named after

Dr. George Steiger (1869-), formerly chief chemist of the United States Geological Survey. [M.A. 6-260.]

Strontium-aragonite. C. O. Hutton, 1936. Trans. Roy. Soc. New Zealand, vol. 66, p. 36 (Strontium-aragonite). A variety of aragonite containing SrCO_3 5.51%, from Otago. Synonym of mosso-tite. [M.A. 6-364.]

Sungulite. G. A. Sokolov, 1925. Bull. Sci.-Techn. Circle Metall. & Chem., Leningrad Polytechn. Inst., no. 1 (2), p. 74; Trans. Geol. Prospecting Service USSR, 1931, no. 56, p. 32 (сунгулит). A variety of serpentine from Sungul lake, Kyshtym, Urals. Named from the locality. [M.A. 6-219, 436.]

Talasskite. V. D. Nikitin, 1936. Mém. Soc. Russ. Min., ser. 2, vol. 65, p. 282 (таласскит), p. 288 (talasskite). A variety of fayalite containing Fe_2O_3 12.07%. Named from the locality, the Talassa valley, Kirghiz republic, Siberia. [M.A. 6-439.]

Taosite. J. de Lapparent, 1935. Compt. Rend. Acad. Sci. Paris, vol. 201, p. 156. A form of alumina distinct from corundum, occurring in the emery of Samos. Named from ταῶς, a peacock, the emblem of Hera (Juno) at Samos. [M.A. 6-150.]

Thioelaterite. B. L. Dunicz, 1936. Arch. Min. Tow. Nauk. Warszaw. (Arch. Min. Soc. Sci. Varsovie), vol. 12, p. 90 (tioelateryt), p. 95 (tioélaterite, tioélatérite). An elastic bitumen containing 3% of sulphur (θειον), from Bolivia: a natural vulcanized caoutchouc or elaterite. [M.A. 6-344.]

Titangarnet, Titanhornblende, Titanmica, Titantourmaline. W. Kunitz, 1936. Neues Jahrb. Min., Abt. A, Beil.-Bd. 70, p. 392 (Titangranate, *pl.*), p. 385 (Titanhornblenden), p. 397 (Titan-Hornblenden), p. 399 (Titanglimmer), p. 401 (Titan-Glimmer), p. 385 (Titanurmaline, *pl.*). Titaniferous silicates analogous to titanaugite (4th List), titanbiotite (9th List), titanolivine (A. Damour, 1879).

Titanpigeonite. T. Tomita, 1933. Journ. Shanghai Sci. Inst., Sect. 2, vol. 1, p. 3 (titan-pigeonite); 1934, vol. 1, p. 120 (titanpigeonite). A variety of titanaugite related to pigeonite. [M.A. 6-119.]

Todorokite. T. Yoshimura, 1934. Journ. Fac. Sci. Hokkaido Univ., Sapporo, Ser. 4, vol. 2, p. 289 (todorokite). Hydrated manganese oxide or manganate with some Ca, Ba, Mg, formula $2(\text{RO} \cdot \text{MnO}_2$.

$2\text{H}_2\text{O}$). $3(\text{Mn}_2\text{O}_3 \cdot 3\text{MnO}_2 \cdot 2\text{H}_2\text{O})$, probably monoclinic; from Todoroki mine, Hokkaido, Japan. Named from the locality. [M.A. 6-53.]

Trieuite. L. De Leenheer, 1935. *Natuurwet. Tijdschrift, Gent*, vol. 17, p. 91 (trieuiet), p. 95 (trieuite). Hydrated oxide of cobalt and copper, $2\text{Co}_2\text{O}_3 \cdot \text{CuO} \cdot 6\text{H}_2\text{O}$; a black amorphous mineral differing from heterogenite in containing no CoO. From Katanga. Named after Robert du Trieu de Terdonck, chief geologist of the Union Minière du Haut Katanga. Cf. Mindigite. [M.A. 6-152.]

Trimontite. I. Iwasa, 1877. [Gakugéisirin, no. 57.] Z. Harada, *Journ. Fac. Sci. Hokkaido Univ., Sapporo, Ser. 4, 1936, vol. 3, p. 357* (Trimonit, Trimontit). Analysis gave the composition $5\text{CaO} \cdot 3\text{WO}_3$, but the mineral was afterwards (T. Wada, 1904) proved to be scheelite, CaWO_4 . Named from the locality, San-no-také (= three-of-mountains), Hukuoka, Japan.

U-galena. P. F. Kerr, 1935. *Amer. Min.*, vol. 20, p. 443. Galena containing uranium lead of isotope Pb^{208} . [M.A. 6-152.]

Ungemachite. M. A. Peacock and M. C. Bandy, 1936. *Amer. Min.*, 1936, vol. 21, no. 12, pt. 2, p. [2]; 1937, vol. 22, p. 207. Hydrated basic sulphate of sodium, potassium, and ferric iron, $\text{Na}_4(\text{K}, \text{Fe}''')_2(\text{OH})(\text{SO}_4)_3 \cdot 5\text{H}_2\text{O}$, as colourless rhombohedral crystals, from Chile. Named after Dr. Henri Léon Ungemach (1880?-1936) of Strasbourg. See Clino-ungemachite. [M.A. 6-443.]

Uxporite. O. M. Shubnikova and D. V. Yufarov, *Spravochnik po novym mineralam, Leningrad, 1934, p. 57*. Still another spelling of yuksporite, юкспорит (10th List), juxporite and juksporite (11th List).

Vanado-magnetite. A. M. Heron, 1936. *Rec. Geol. Surv. India*, vol. 71, p. 44 (vanado-magnetite). G. H. Tipper, *Bull. Imp. Inst. London, 1936, vol. 34, p. 451*. A magnetic iron ore containing variable amounts of vanadium (V_2O_5 up to 8%) and titanium (up to 25%), from Bihar, India. Later named coulsonite (q.v.). [M.A. 6-489.]

Varulite. P. Quensel, 1937. *Geol. För. Förh. Stockholm*, vol. 59, p. 95 (varulite). A phosphate mineral $\text{Na}_2\text{O} \cdot 0.5(\text{Mn}, \text{Fe}, \text{Ca}) \cdot 2\text{P}_2\text{O}_5$, presumably orthorhombic, occurring as olive-green granular masses

at Varuträsk, northern Sweden. Named from the locality. [M.A. 6-486.]

Vittinkite. M. Saxén, 1925. *Fennia*, Soc. Geogr. Fenniae, Helsingfors, vol. 45, no. 11, p. 24 (Vittinkit). A variant of wittingite (N. Nordenskiöld, 1849), a synonym of neotocite. Named from the locality, Vittinki (Wittingi), SE. Bothnia, Finland.

Vudyavrite. I. D. Borneman-Starynkevich, 1933. *Khibina Apatite*, Leningrad, 1933, p. 114 (вудъяврит); *Materials Geochem. Khibina tundra*, Acad. Sci. USSR, 1935, pp. 43, 62; P. N. Chirvinsky, *ibid.*, p. 89 (Wudjavrit). A. E. Fersman, *The scientific study of Soviet mineral resources*, New York, 1935, p. 49 (vudiavrite). Hydrated titanio-silicate of cerium earths, $Ce_4(Ti_2O_6)_3.nSiO_2.mH_2O$, as a yellowish, amorphous glassy alteration product of lovchorrite, from Vudyavrchorr (Вудъяврчорр), Kola peninsula, Russia. Named from the locality. [M.A. 6-341-343.]

Warrenite. A. K. Boldyrev, 1928. *Kurs opisatelnoi mineralogii*, Leningrad, 1928, part 2, p. 162 (Варренит). O. M. Shubnikova and D. V. Yuferev, *Spravochnik po novym mineralam*, Leningrad, 1934, p. 48 (Варренит, Warrenite). A pink variety of smithsonite containing cobalt (CoO 10-25%), from Boleo, Lower California, Mexico. Named after Professor Charles Hyde Warren (1876-), of Yale University, who analysed the mineral in 1898. Synonym of Cobaltsmithsonite (12th List). Not the warrenite of L. G. Eakins (1888) or of S. F. Peckham (1895; 2nd List).

Wotanite. W. Kunitz, 1936. *Neues Jahrb. Min., Abt. A., Beil.-Bd. 70*, p. 399 (Wotanite, *pl.*). Variant of wodanite (9th List).

Wudjavrit. See Vudyavrite.

Yamagutilite. K. Kimura, 1933. [Rep. Japanese Assoc. Adv. Sci., vol. 8, p. 157 (Japanese).] Z. Harada, *Journ. Fac. Sci. Hokkaido Univ., Sapporo*, Ser. 4, 1936, vol. 3, p. 298 (Yamagutilith). A variety of zircon containing P_2O_5 4-23, rare-earth 15-89, HfO_2 ca. 3.4%, &c., from Yamaguti, Nagano, Japan. Named from the locality.

Zinntitanit. P. Ramdohr, 1935. *Neues Jahrb. Min., Abt. A., Beil.-Bd. 70*, p. 15 (Zinntitanit). A variety of sphene containing 10% of tin, from Arandis, South-West Africa. [M.A. 6-368.]

SYSTEMATIC CLASSIFICATION OF NEW MINERALS¹

ELEMENTS	BORATES
Aurosmirid, Ir, Os, Au.	Metakernite, $\text{Na}_2\text{B}_4\text{O}_7 \cdot 2\text{H}_2\text{O}$.
Cuproplatinum, var. of platinum.	Roweite, $\text{H}_2(\text{Mn}, \text{Mg}, \text{Zn})\text{Ca}(\text{BO}_3)_2$.
SULPHIDES, ETC.	PHOSPHATES, ETC.
Herzenbergite, SnS.	Cerapatite, var. of apatite.
Parkerite, $\text{Ni}_2\text{S}_3(?)$.	Repossite, $(\text{Fe}, \text{Mn}, \text{Ca})_3(\text{PO}_4)_2$.
Blockite, $(\text{Ni}, \text{Cu})\text{Se}_2$.	Mangualdite, $3(\text{Mn}, \text{Ca})\text{O} \cdot \text{P}_2\text{O}_5$.
Niggliite, $\text{PtTe}_3(?)$.	Clino-triptylite, $\text{Li}(\text{Fe}, \text{Mn})\text{PO}_4$.
HALOIDS	Ferri-sicklerite, $(\text{Li}, \text{Fe}''', \text{Mn}'')\text{PO}_4$.
Bismoclite, BiOCl .	Headdenite, $\text{Na}_2\text{O} \cdot 0.5(\text{Fe}, \text{Mn}, \text{Ca}) \cdot 0.2\text{P}_2\text{O}_5$.
OXIDES	Varulite, $\text{Na}_2\text{O} \cdot 0.5(\text{Mn}, \text{Fe}, \text{Ca}) \cdot 0.2\text{P}_2\text{O}_5$.
Sosmanite, magnetic $\gamma\text{-Fe}_2\text{O}_3$.	Bermanite, $(\text{Mn}, \text{Mg})_5^2(\text{Mn}, \text{Fe})_2^3(\text{PO}_4)_8$ (OH) ₁₀ · 15H ₂ O.
Taosite, Al_2O_3 .	Magnesium-chlorophoenicite, $(\text{Mg}, \text{Mn})_2\text{As}_2\text{O}_8 \cdot 7(\text{Mg}, \text{Mn})(\text{OH})_2$.
Vanado-magnetite (coulsomite), $\text{FeO} \cdot (\text{Fe}, \text{V})_2\text{O}_3(?)$	Neopurpurite, $7(\text{Fe}, \text{Mn})_2\text{O}_3 \cdot 5\text{P}_2\text{O}_5 \cdot 4\text{H}_2\text{O}$.
HYDROXIDES	Pseudopalaite, $6(\text{Mn}, \text{Fe})\text{O} \cdot 2\text{P}_2\text{O}_5 \cdot 5\text{H}_2\text{O}$.
Hydrohetaerolite, $2\text{ZnO} \cdot 2\text{Mn}_2\text{O}_3 \cdot \text{H}_2\text{O}$.	Metatriplite, $6\text{MnO} \cdot 3\text{Fe}_2\text{O}_3 \cdot 3\text{P}_2\text{O}_5 \cdot 2\text{RF}_2 \cdot 4\text{H}_2\text{O}$.
Boodtite, $5\text{Co}_2\text{O}_3 \cdot \text{CuO} \cdot \text{Fe}_2\text{O}_3 \cdot 11\text{H}_2\text{O}$.	Austinite, $\text{CaZn}(\text{OH})\text{AsO}_4$.
Mindigite, $9\text{Co}_2\text{O}_3 \cdot 2\text{CuO} \cdot 16\text{H}_2\text{O}$.	Sahlinite, $12\text{PbO} \cdot \text{As}_2\text{O}_5 \cdot 2\text{PbCl}_2$.
Trievite, $2\text{Co}_2\text{O}_3 \cdot \text{CuO} \cdot 6\text{H}_2\text{O}$.	Magnesium-berzeliite, $(\text{Ca}, \text{Na})_3\text{Mg}_2(\text{AsO}_4)_3$.
Todorokite, $\left\{ \begin{array}{l} 2(\text{RO} \cdot \text{MnO}_2 \cdot \text{H}_2\text{O}) \\ 3(\text{Mn}_2\text{O}_3 \cdot 3\text{MnO}_2 \cdot 2\text{H}_2\text{O}) \end{array} \right.$	Arsentsumebite, var. of tsumebite.
ALUMINATES	Steigerite, $\text{Al}_2\text{O}_3 \cdot \text{V}_2\text{O}_5 \cdot 6\frac{1}{2}\text{H}_2\text{O}$.
Alumochromite, $\text{Fe}(\text{Cr}, \text{Al})_2\text{O}_4$.	Cuprovanadinite, var. of vanadinite.
Gahnospinel, $(\text{Mg}, \text{Zn})\text{Al}_2\text{O}_4$.	NIOBATES, ETC.
CARBONATES	Khlopinito, $(\text{Yt}, \text{U}, \text{Th}, \text{Fe})_2\text{Nb}_2\text{TiO}_9 \cdot \text{H}_2\text{O}$.
Cobalto-sphaerosiderite, $(\text{Fe}, \text{Mn}, \text{Mg}, \text{Co}, \text{Ca})\text{CO}_3$.	Scheteligite, $(\text{Ca}, \text{Fe}, \text{Mn}, \text{Sb}, \text{Bi}, \text{Yt})_2$ $(\text{Ti}, \text{Ta}, \text{Nb}, \text{W})_2(\text{O}, \text{OH})_7$.
Bokspitite, $6\text{PbO} \cdot \text{Bi}_2\text{O}_3 \cdot 3\text{CO}_2$.	SILICATES
Hydrobismutite, $\text{Bi}_2\text{O}_3 \cdot \text{CO}_2 \cdot 2 \cdot 3\text{H}_2\text{O}$.	Kasoite, barium-felspar.
SULPHATES, ETC.	Iron-hypersthene } Orthoferrosilite } FeSiO_3 .
Mercallite, KHSO_4 .	Clinoferrosilite, FeSiO_3 .
Ungemachite, $\text{Na}_4(\text{K}, \text{Fe}''')_2(\text{OH})(\text{SO}_3)_3 \cdot 5\text{H}_2\text{O}$.	Astridite, chromojadeite.
Pseudo-copiapite, $2\text{Fe}_2\text{O}_3 \cdot 5\text{SO}_3 \cdot 17\text{H}_2\text{O}$.	Parawollastonite.
Ahlfeldite, Ni selenate (?)	Iron-wollastonite.
Lindgrenite, $2\text{Cu}_2\text{MoO}_4 \cdot \text{Cu}(\text{OH})_2$.	Mangan-wollastonite.
Ferri-paraluminite, $2(\text{Al}, \text{Fe})_2\text{O}_3 \cdot \text{SO}_3 \cdot 15\text{H}_2\text{O}$.	

¹ Only a selection of the names given in the preceding alphabetical list are here included.

Hsihutsunite, var. of rhodonite.
 Fluor-amphibole, $F_2R_7''(Si_4O_{11})_2$.
 Hydro-amphibole.
 Dashkesanite, chlor-amphibole.
 Chrome-tremolite.
 Talasskite, $(Fe'', Mg)_5Fe'''(SiO_4)_3$.
 Yamagutilite, var. of zircon.
 Heterophyllite, var. of biotite.
 Chrome-epidote.
 Manganese-zoisite.
 Ferro-chrysotile, $H_4Fe_3Si_2O_9$.
 Ishkyldite, $H_{10}Mg_{15}Si_{11}O_{47}$.
 Metahalloysite, $H_4Al_3Si_2O_9$.
 Potash-montmorillonite.
 Ermakite, $(Al, Fe)_2O_3 \cdot 3SiO_2 \cdot 2H_2O$.
 Attapulgitic
 $\left\{ \begin{array}{l} x[9SiO_2 \cdot 6(Mg, Fe'', Ca)O \cdot 12H_2O] \\ y[9SiO_2 \cdot 2(Al, Fe''')_2O_3 \cdot 12H_2O] \end{array} \right.$
 Aidyrlite, $2NiO \cdot 2Al_2O_3 \cdot 3SiO_2 \cdot 7\frac{1}{2}H_2O$.
 Labite, $H_2MgSi_3O_8 \cdot H_2O$.
 Mesquitelite,
 $(Mg, Ca)O \cdot 2Al_2O_3 \cdot 9SiO_2 \cdot 5H_2O$.

Skolite,
 $H_4K(Mg, Fe, Ca)(Al, Fe)_3Si_6O_{20} \cdot 4H_2O$
 Iron-strigovite,
 $2(Fe, Mg)O \cdot (Fe, Al)_2O_3 \cdot 2SiO_2 \cdot 2H_2O$.
 Calcium-rinkite,
 $3CaTiO_3 \cdot 10(Ca, Na_2, H_2)SiO_3 \cdot 3CaF_2$.
 Vudyavrite, $Ce_4(Ti_2O_6)_2 \cdot nSiO_2 \cdot mH_2O$.
 Zinntitanit, sphene with Sn.

HYDROCARBONS

Earlandite, $Ca_2(C_6H_5O_7)_2 \cdot 4H_2O$.
 Fluorene, $C_{13}H_{10}$.
 Anthracene, $C_{14}H_{10}$.
 Bacalite, var. of amber.
 Enelectrite.
 Carbocer.
 Carburan.
 Broggite, var. of asphaltum.
 Thioelaterite.
 Marahuite.