

*Twentieth list of new mineral names.*¹

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Aldanite. M. M. Bepalov, 1941. *Soviet Geology*, 1941, no. 6, p. 107 (алданит). $k\text{ThO}_2.l\text{UO}_2.m\text{UO}_3.n\text{PbO}$, cubic, thorianite group. Named from the locality, Aldan region, eastern Siberia. (18th List.) [M.A. 12-460.]

Alkali-oxyapatite. V. I. Vlodovetz, 1933. *Trans. Arctic Inst.*, vol. 12, p. 84 (щелочной окси-апатит), p. 99 (alkaline oxyapatite). O. M. Shubnikova, *Trans. Lomonosov Inst.*, 1936, no. 7, p. 328 (щелочной оксиапатит, alkali-oxyapatite). Apatite containing Na_2O 1.37 % replacing CaO , and O partly replacing (F, OH).

Aluminiumskorodit, Alumoskorodit, Alumskorodit. K. F. Chudoba, 1954. *Hintze, Min., Ergbd.* 2, pp. 8, 10, 11. Synonyms of Aluminoskorodite (18th List). Unnecessary complications.

Aluminous-serpentine. H. S. Yoder, 1952. *Amer. Journ. Sci.*, Bowen volume, p. 579 (Aluminous-Serpentine, aluminous serpentine, Al-serpentine). Artificially produced, platy habit, related to antigorite or clinocllore. Compare Aluminochrysotile, 17th List. [M.A. 12-83.]

Alumogel. (Author?). H. Strunz, *Min. Tab.*, 1941, p. 111 (Alumogel). Amorphous aluminium hydroxide, 'AlOOH + aq.' Synonym of kiachite (5th List) and sporogelite (6th List). Compare Siderogel (19th List).

Alvarolite. W. Florencio, 1952. *Anais Acad. Brasil. Cienc.*, vol. 24, p. 261 (Alvarolita). Perhaps monoclinic MnTa_2O_6 , dimorphous with manganotantalite [cf. *Min. Mag.* 27-162]. Named after Admiral Alvaro Alberto da Motta e Silva, director of the national research council, Brazil. [M.A. 12-305.]

Ammonium-apthitalite. C. Frondel, 1950. *Amer. Min.*, vol. 35, p. 596 (ammonian apthitalite). A variety of apthitalite containing $(\text{NH}_4)_2\text{SO}_4$ 5.68 %, $(\text{K}, \text{NH}_4)_3\text{Na}(\text{SO}_4)_2$, hexagonal. From Guañape Islands, Peru. [M.A. 11-302.]

¹ Previous lists in this series have been given every three years at the ends of vols. 11-29 (1897-1952) of this Magazine. The present list includes 219 names, bringing the total up to 3153, since the sixth edition (1892) of Dana's 'System of Mineralogy'. References to 'Mineralogical Abstracts' are given in the form [M.A. 12-].

Ammonium-mica. J. W. Gruner, 1939. *Amer. Min.*, vol. 24, p. 428 (Ammonium mica). Hintze, *Min.*, 1954, *Ergbd.* 2, p. 12 (Ammonium-glimmer). An artificial product produced by the action of H_2O_2 and NH_4OH on vermiculite. [M.A. 7-479.]

Analbite. H. L. Alling, 1936. *Interpretative petrology of igneous rocks*, p. 59 (low-temperature triclinic β - $NaAlSi_3O_8$).

— F. Laves, 1952. *Journ. Geol. Chicago*, vol. 60, p. 570 (low-temperature albite; p. 571, anperthite containing exsolved analbite; p. 572, anplagioclases). Not the analbite of A. N. Winchell (11th List) or of H. L. Alling (above). [M.A. 12-136.]

Arsenatapatit. *Synonym of svabite. See Bleiapatit.*

Arsenosulvanite. A. G. Betekhtin, 1941. *Mém. Soc. Russ. Min.*, vol. 70, p. 161 (арсеносульфанил). V. I. Mikkeev, *ibid.*, p. 165. Isomorphous with sulvanite (2nd List) with vanadium largely replaced by arsenic, $Cu_3(As,V)S_4$, cubic; from Mongolia. [M.A. 12-460.]

Arsenstruvite. (Author?). H. Strunz, *Min. Tab.*, 1949, p. 172 (Arsenstruvit). $NH_4MgAsO_4 \cdot 6H_2O$, like struvite with As in place of P. Presumably an artificial product.

Avelinoite. M. L. Lindberg and W. T. Pecora, 1954. *Science (Amer. Assoc. Adv. Sci.)*, vol. 120, p. 1074. Hydrrous sodium ferric phosphate, $NaFe_3''(PO_4)_2(OH)_4 \cdot 2H_2O$, tetragonal, from Brazil. Named after Avelino Ignacio de Oliveira, Brazilian geologist. [M.A. 12-512.]

Barbosalite. M. L. Lindberg and W. T. Pecora, 1954. *Science (Amer. Assoc. Adv. Sci.)*, vol. 119, p. 739. Hydrrous ferrous ferric phosphate, $Fe''Fe'''(PO_4)_2(OH)_2$, as black grains from Brazil. Named after Prof. A. L. de M. Barbosa, School of Mines. Minas Geraes. *See Ferro-ferric-lazulite.* [M.A. 12-408.]

Barium-priderite. K. Norrish, 1951. *Min. Mag.*, vol. 29, p. 500 (Ba-priderite). Hintze, *Min.*, 1954, *Ergbd.* 2, p. 31 (Barium-Priderit). The natural mineral priderite (19th List) contains BaO 6.7, K_2O 5.6 %. Ba-priderite and K-priderite (q.v.) were prepared artificially.

Belovite. E. I. Nefedov, 1953. *Mém. Soc. Russ. Min.*, ser. 2, vol. 82, p. 317 (Беловит). ' $Ca_3(Ca,Mg)(AsO_4)_2 \cdot 2H_2O$ ', near roselite. [M.A. 12-352.]

— L. S. Borodin and M. E. Kazakova, 1954. *Doklady Acad. Sci. USSR*, vol. 96, p. 613 (Беловит). An apatite-like mineral from pegmatite, hexagonal, $(Sr,Ce,Na,Ca)_{10}(PO_4)_6(O,OH)_2$. Named after academician N. V. Belov, H. B. Белов, of Moscow. [M.A. 12-461.]

Beryllite. M. V. Kuzmenko, 1954. Doklady Acad. Sci. USSR, vol. 99, p. 451 (бериллит). Hydrrous silicate of beryllium, $\text{Be}_3\text{SiO}_4(\text{OH})_2 \cdot \text{H}_2\text{O}$, as an alteration product of epididymite. [M.A. 12-569.]

Bleiapatit, &c. F. Machatschki, 1953. Spezielle Mineralogie, Wien, p. 330. In the apatite family, pyromorphite is named Bleiapatit. Similarly, Arsenatapatit = svabite, Bleiarsenatapatit = mimetite, Bleivanadatapatit = vanadinite, Silikatsulfatapatit = wilkeite, Cererensilikatapatit = britholite, Yttererensilikatapatit = abukumalite. [M.A. 12-232.]

Bøggildite. R. Bøgvad, 1952 (MS.). A. H. Nielsen, Acta Chem. Scand., 1954, vol. 8, p. 136. A fluoride $\text{Na}_2\text{Sr}_2\text{Al}_2(\text{PO}_4)\text{F}_9$ from the Greenland cryolite deposit. Named after Ove Balthasar Bøggild (1872-), emeritus professor of mineralogy in the university of Copenhagen. [M.A. 12-14, 353.]

Bouazzerite. Name found on a dealer's label by J. Paclt, Neues Jahrb. Min., Monatshefte, 1953, p. 188 (Bouazzerit). A ferriferous variety of stichtite from Bou Azzer, Morocco. [M.A. 9-121, 12-239.]

Burbankite. W. T. Pecora and J. H. Kerr, 1953. Amer. Min., vol. 38, p. 1169. $(\text{Ca}, \text{Sr}, \text{Ba}, \text{Ce}, \text{Na})_6(\text{CO}_3)_5$ as pale yellow hexagonal crystals with other rare-earth carbonates from Montana. Named after Wilbur Swett Burbank (1898-) of the United States Geological Survey. [M.A. 12-301.]

Calciouraconite. A. K. Boldyrev, 1935. Kurs opisatelnoi mineralogii, Leningrad, pt. 3, p. 83 (Кальцио-ураконит). Variety of uraconite containing 3% CaO .

Calcium-analcime. A. Steiner, 1955. Min. Mag., vol. 30, p. 695. Artificial $\text{CaAl}_2\text{Si}_4\text{O}_{12} \cdot 2\text{H}_2\text{O}$, analogous to analcime with Ca in place of Na. Synonym of wairakite (q.v.).

Calcium-uranospinite. M. E. Mrose, 1953. Amer. Min., vol. 38, p. 1159 (calcium-uranospinite). Synonym of uranospinite, as applied to the artificial product. Compare hydrogen-uranospinite, &c. (19th List). [M.A. 12-445.]

Calkinsite. W. T. Pecora and J. H. Kerr, 1953. Amer. Min., vol. 38, p. 1169. Hydrrous carbonate of rare-earths, $(\text{La}, \text{Ce}, \text{Nd}, \text{Pr})_2(\text{CO}_3)_2 \cdot 4\text{H}_2\text{O}$, as minute pale-yellow orthorhombic plates from Montana. An alteration product of burbankite (q.v.). Named after Frank Cathcart Calkins (1878-) of the United States Geological Survey. [M.A. 12-301.]

Callaghanite. C. W. Beck and J. H. Burns, 1953. Progr. & Abstr. Min. Soc. Amer., p. 10; Amer. Min., 1954, vol. 39, p. 316, 630. $\text{Cu}_4\text{Mg}_4\text{Ca}(\text{OH})_{14}(\text{CO}_3)_2 \cdot 2\text{H}_2\text{O}$, blue monoclinic crystals in dolomite-rock from Gabba, Nevada. Named after Dr. Eugene Callaghan, director of the New Mexico Bureau of Mines. [M.A. 12-304, 410.]

Carbonate-hydrotalcite. D. M. Roy, R. Roy, and E. F. Osborn, 1953. *Amer. Journ. Sci.*, vol. 251, p. 355. Synonym of hydrotalcite. See Nitrate-hydrotalcite. [M.A. 12-196.]

Cardenite. D. M. C. MacEwan, 1954. *Clay Min. Bull.*, vol. 2, p. 120. 'A trioctahedral montmorillonoid derived from biotite' in soil-clay at Carden Wood and other places in Aberdeenshire. A mixed alteration product previously described, without name, by G. F. Walker in *Min. Mag.* 29-72.

Caustobiolites, Caustolites. Group-names for combustible organic substances. H. Potonié, *Die Entstehung der Steinkohle und Kaustobiolithe*, Berlin, 1910, p. 1. A. W. Grabau, *Textbook of geology*, New York, 1920, pt. 1, p. 270 (Caustolith). J. Paclt, *Tschermaks Min. Petr. Mitt.*, 1953, ser. 3, vol. 3, p. 332 (Caustolites). [M.A. 12-306.]

Cheralite. S. H. U. Bowie and J. E. T. Horne, 1953. *Min. Mag.*, vol. 30, p. 93. A member of the monazite group rich in thorium (ThO_2 31.50%), $(\text{Ce,La,Th,U,Ca})(\text{P,Si})\text{O}_4$, as green monoclinic crystals in pegmatite from Travancore. Named from Chera (Kerala), an ancient kingdom in SW. India.

Chiklite. S. A. Bilgrami, 1955. *Min. Mag.*, vol. 30, p. 634. A manganese amphibole in manganese ore from Chikla, Bhandara, India. Named from the locality.

Chilkinite, Schilkinite. French (*Bull. Soc. Franç. Min. Crist.*, 1951, vol. 74, p. 182) and German (Hintze, *Min.*, 1954, *Ergbd.* 2, p. 349) transliterations of шилкинит, shilkinite (16th List).

Chinoite. C. W. Beck and D. B. Givens, 1953. *Amer. Min.*, vol. 38, p. 191. A basic copper phosphate from Chino mine, New Mexico. Later proved to be identical with libethenite. [M.A. 12-132, 462.]

Chlor-spodiosite. F. K. Cameron and W. J. McCaughey, 1911. *Journ. Physical Chem.*, vol. 15, p. 468. Artificially produced $\text{Ca}_2\text{PO}_4\text{Cl}$, isomorphous with spodiosite with chlorine in place of fluorine. [*Min. Mag.* 30-166.]

Cliно-chevkinite. S. Bonatti and G. Gottardi, 1953. *Rend. Soc. Min. Ital.*, vol. 9, p. 242 (clino-chevkinite); *ibid.*, 1954, vol. 10, p. 224 (clinochevkinite). Monoclinic chevkinite from Urals (A. K. Boldyrev, 1924, M.A. 3-405), as distinct from orthorhombic chevkinite from Madagascar (A. Lacroix, 1915). See Ortho-chevkinite. [M.A. 12-240, 498.]

Cliно-chrysotile, ortho-chrysotile. E. J. W. Whittaker, 1951. *Acta Cryst.*, vol. 4, p. 187; 1952, vol. 5, p. 143. Monoclinic and orthorhombic forms of chrysotile, as determined by X-rays. [M.A. 11-430, 539.]

Coesite. R. B. Sosman, 1954. *Science* (Amer. Assoc. Adv. Sci.), vol. 119, p. 738 (coesite), p. 739 (silica C). A high-pressure form of dense (sp. gr. 3.01) silica, probably triclinic, prepared under dry conditions by L. Coes, after whom it is named. [M.A. 12-410.]

Coffinite. A. D. Weeks and M. E. Thompson, 1954. [Bull. U.S. Geol. Surv., no. 1009-B, p. 31] abstract in *Amer. Min.*, 1954, vol. 39, p. 1037. L. R. Steiff, J. W. Stern, and A. M. Sherwood, *Science* (Amer. Assoc. Adv. Sci.), 1955, vol. 121, p. 608. Uranium silicate, $U(SiO_4)_{1-x}(OH)_{4x}$, tetragonal, as a black impregnation in sandstone on the Colorado plateau. Named after Reuben Clare Coffin of the Colorado Geological Survey. [M.A. 12-566-7, 586-7.]

Corrensite. F. Lippmann, 1954. *Heidelberg. Beitr. Min. Petr.*, vol. 4, p. 134 (Corrensit). A 'swelling' chloritic mineral determined by X-rays in the finest fraction of red Keuper clay. Named after Prof. Carl Wilhelm Correns (1893-) of Göttingen.

Corundophyllite. A. Des Cloizeaux, *Manuel Min.*, 1862-93; A. de Lapparent, *Cours Min.*, 1st-4th edit., 1884-1908; variable entries in text and indexes, corundophilite, corundophyllite. J. Orceul, *Compt. Rend. Acad. Sci., Paris*, 1924, vol. 178, p. 1730 (corundophyllite). Error for corundophilite, named from *φίλος*, friend of corundum, of which it is an alteration product. [M.A. 3-56, 372.]

Cryohalite. (Author?). A. E. Fersman and O. M. Shubnikova, *Geochem. Min. Companion*, Moscow, 1937, p. 160 (криогалит, $NaCl \cdot 10H_2O$). Eutectic mixture of ice and hydrohalite ($NaCl \cdot 2H_2O$). Named from *κρύος*, frost, and halite. Compare cryohydrate (F. Guthrie, 1874). See Maakite. [M.A. 12-240.]

Cupromontmorillonite. F. V. Chukhrov and F. Y. Anosov, 1950. *Mém. Soc. Russ. Min.*, ser. 2, vol. 79, p. 26 (медмонтит, купромонтмориллонит). I. D. Sedletzky, *Priroda*, Acad. Sci. USSR, 1950, vol. 39, no. 10, p. 48 (купромонтмориллонит). Correction to 19th List. [M.A. 12-239.]

Cuprozippeite. A. K. Boldyrev, 1935. *Kurs opisatelnoi mineralogii*, Leningrad, pt. 3, p. 83 (Купроциппеит). Variety of zippeite containing 5% CuO.

Cyrilovite. M. Novotný and J. Staněk, 1953. *Acta Acad. Sci. Nat. Moravo-Silesicae*, vol. 25, p. 325 (cyrilovit). Brown tetragonal crystals, $4Fe_2O_3 \cdot 3P_2O_5 \cdot 5\frac{1}{3}H_2O$; in pegmatite from Cyrilov, Moravia. Named from the locality. [M.A. 12-512.]

Eisenchrysotil. F. Machatschki, 1953. *Spezielle Mineralogie*, Wien, p. 350. Given as a synonym of 'Greenolith' (error for greenalite, 4th List). Not the same as ferro-chrysotile (14th List) and iron-serpentine (15th List).

Eisenrichterit. M. Belowsky, 1905. *Zeits. Deutsch. Geol. Gesell.*, vol. 57, p. 33. A fibrous blue amphibole from Greenland, allied to richterite ('astochite') with iron in place of manganese. (The composition was calculated from a rock analysis after deducting 76 % of felspar.) *See* Iron-richterite, Ferririchterite.

Eitelite. C. Milton, J. M. Axelrod, and F. S. Grimaldi, 1954. *Bull. Geol. Soc. Amer.* [1955], vol. 65, no. 12 (for 1954), p. 1286 (abstract). $\text{Na}_2\text{O} \cdot \text{MgO} \cdot 2\text{CO}_3$ hexagonal, from an oil well in Utah. Named after Wilhelm (Hermann Julius) Eitel (1891-), director of the Institute for Silicate Research in the University of Toledo, Ohio. [M.A. 12-511.]

Evenkite. A. V. Skropyshev, 1953. *Doklady Acad. Sci. USSR*, vol. 88, p. 719 (эвенкиит). Paraffin wax, $\text{C}_{12}\text{H}_{42}$, as white, optically biaxial scales in a vein of sulphide ores from the district of the Evenki people, Lower Tunguska river, Siberia. [M.A. 12-305.]

Faheyite. M. L. Lindberg and K. J. Murata, 1952. *Bull. Geol. Soc. Amer.* [1953], vol. 63, no. 12 (for 1952), p. 1275 (abstract); *Amer. Min.*, 1953, vol. 38, pp. 263, 349. $(\text{Mn}, \text{Mg}, \text{Na})\text{Be}_2\text{Fe}_2''(\text{PO}_4)_4 \cdot 6\text{H}_2\text{O}$, hexagonal, as white fibres in pegmatite from Brazil. Named after Dr. Joseph John Fahey (1901-), geochemist, United States Geological Survey. A preliminary notice of the title of the paper, *Amer. Min.*, Nov.-Dec., 1952, vol. 37, p. x, gives the form faheyite. [M.A. 12-131.]

Farallonite. N. N. Kohanowski, 1953. *Mines Mag.*, Denver, Colorado, vol. 43, no. 2, p. 19. Sky-blue chalky material, monoclinic?, ' $2\text{MgO} \cdot \text{W}_2\text{O}_5 \cdot \text{SiO}_2 \cdot n\text{H}_2\text{O}$?'; an alteration product of wolframite in the Farallon mine, Tasna, Bolivia. Named from the locality. [M.A. 12-306.]

Faustite. R. C. Erd, M. D. Foster, and P. D. Proctor, 1953. *Amer. Min.*, vol. 38, p. 964. The zinc analogue of turquoise; $(\text{Zn}, \text{Cu})\text{Al}_6(\text{PO}_4)_4(\text{OH})_8 \cdot 5\text{H}_2\text{O}$, containing ZnO 7.74, CuO 1.61 %. Fine-grained, apple-green masses from Nevada. Named after Dr. George Tobias Faust (1908-) of the United States Geological Survey. [M.A. 12-302.]

Ferri-chamosite. G. W. Brindley and R. F. Youell, 1953. *Min. Mag.*, vol. 30, p. 57 (ferric chamosite). Oxidized product of ferrochamosite (q.v.) when heated in air or weathered. May be a distinct species (? berthierine, *Min. Mag.* 30-645).

Ferririchterite. S. A. Bilgrami, 1955. *Min. Mag.*, vol. 30, p. 641. Suggested as a more appropriate name for the manganese amphibole juddite. Compare ferririchterite (18th List). *See* Eisenrichterit, iron-richterite.

Ferrite-spinels. P. Ramdohr, 1950. *Erzmineraleien*, Berlin, p. 657 (Ferritspinelle). Collective name for minerals of the magnetite series, ferrite compounds RFe_2O_4 (R = Mg, Fe, Zn, Mn, Zn), in the spinel group.

Ferro-chamosite. G. W. Brindley and R. F. Youell, 1953. *Min. Mag.*, vol. 30, p. 57 (ferrous chamosite). Synonym of chamosite. When heated in air or weathered it changes to ferri-chamosite (q.v.).

Ferro-ferri-lazulite. M. A. Gheith, 1953. *Amer. Min.*, vol. 38, p. 612 (ferrous ferric lazulite). Artificially produced monoclinic iron phosphate approximating to $\text{Fe}^{\text{II}}\text{Fe}^{\text{III}}_2(\text{PO}_4)_2(\text{OH})_2$, isomorphous with lazulite with Fe in place of Mg and Al. Later named barbosalite (q.v.). At high temperature it changes over to a tetragonal modification, lipscombite (q.v.). [M.A. 12-238.]

Ferrolazulite. W. E. Tröger, 1952. *Tabellen opt. Bestim. gesteinsbild. Minerale*, p. 145 (Ferrolazulith). Variety of lazulite containing some FeO replacing MgO. Distinct from scorzalite (18th List) and iron-lazulite (19th List).

Ferrorhodochrosite. (Author?). A. E. Fersman and O. M. Shubnikova, *Geochem. Min. Companion*, 1937, p. 213 (феррородохрозит). Ferri-ferrous variety of rhodochrosite. Compare ponite (6th List).

Fluoroxapatite. V. I. Vlodovetz, 1933. *Trans. Arctic Inst.*, vol. 12, p. 79 (фтор-окси-апатит), p. 99 (fluorine oxyapatite). O. M. Shubnikova, *Trans. Lomonosov Inst.*, 1936, no. 7, p. 328 (фтороксиапатит, fluor-oxyapatite).

Gastunite. H. Haberlandt and A. Schiener, 1951. *Tschermaks Min. Petr. Mitt.*, ser. 3, vol. 2, p. 307 (Gastunit Nr. 1). Provisional name for an undetermined mineral of the uranotile group. From the hot springs at Bad Gastein, Salzburg. Named from the locality. Compare neogastunite (19th List). [M.A. 11 433]

Ghassoulite. G. Millot, 1954. *Compt. Rend. Acad. Sci. Paris*, vol. 238, p. 257. An end-member, $\text{Mg}_3\text{Si}_4\text{O}_{10}(\text{OH})_2$, of the montmorillonite group, previously referred to sepiolite. Named from the locality, gebel Ghassoul, Morocco. [M.A. 12-354.]

Gold argentide. M. P. Lozhechkin, 1939. *Doklady Acad. Sci. URSS*, vol. 24, p. 454. Synonym of electrum. [M.A. 7-515.]

Gold cupride. M. P. Lozhechkin, 1939. *Doklady Acad. Sci. URSS*, vol. 24, p. 451. Synonym of cuproauride (15th List) and auri-cupride (19th List). [M.A. 7-514.]

Goldichite. A. Rosenzweig and E. B. Gross, 1954. *Bull. Geol. Soc. Amer.* [1955], vol. 65, no. 12 (for 1954), p. 1299; *Amer. Min.*, 1955, vol. 40, pp. 331, 469. Hydrous potassium ferric sulphate, $\text{KFe}(\text{SO}_4)_2 \cdot 4\text{H}_2\text{O}$, as pale-green monoclinic crystals from the decomposition of pyrite. From Utah. Named after Samuel S. Goldich (1909-), professor of geology, University of Minnesota. [M.A. 12-511.]

Görgeyite. H. Mayrhofer, 1953. Neues Jahrb. Min., Monatshefte, p. 35 (Görgeyit). Hydrated sulphate, $K_2SO_4 \cdot 5CaSO_4 \cdot 1-1\frac{1}{2}H_2O$, small tabular monoclinic crystals with glauconite, &c., in salt deposits at Ischl, Upper Austria. Named in memory of Dr. Rolf Görgéy von Görgö (1886-1915) of Vienna, who wrote on salt deposits. [M.A. 12-132.] Compare mikheevite.

Grovesite. F. A. Bannister, M. H. Hey, and W. C. Smith, 1955. Min. Mag., vol. 30, p. 645. A chlorite-like mineral from the Benallt manganese mine, Wales. $(Mn,Mg,Al)_3(Si,Al)_2(O,OH)_9$, near pennantite (17 List), but with X-ray pattern similar to berthierine and cronstedtite, suggesting a kaolin- rather than a chlorite-type structure. Named after Dr. Arthur William Groves (1903-), of the Imperial Institute, London.

Habazit, Halkofanit. Double transliterations through Serbian, хабазит and халкофанит, of chabazite and chalcophanite. [M.A. 12-483.]

Hagendorfit. H. Strunz, 1954. Neues Jahrb. Min., Monatshefte, 1954, p. 252 (Hagendorfit). $(Na,Ca)(Fe,Mn)_2(PO_4)_2$, triclinic (?), greenish-black. Close to varulite (14th List) and hühnerkobelite (19th List), with $Fe > Mn$ or $Na > Ca$. Named from the locality, Hagendorf, Bavaria. [M.A. 12-462.]

Heikolite. Correct spelling of heikkolite (18th List). [M.A. 12-595.]

Hexacelsian. B. Yoshiki and K. Matsumoto, 1951. Journ. Amer. Ceramic Soc., vol. 34, p. 286. Artificially produced, high-temperature, hexagonal modification of $BaAl_2Si_2O_8$. [M.A. 12-307.]

Hidalgoite. R. L. Smith, F. S. Simons, and A. C. Vlisidis, 1953. Amer. Min., vol. 38, p. 1218. Basic sulphate arsenate, $PbAl_3(AsO_4)(SO_4)(OH)_6$, as white, fine-grained masses, hexagonal, from Zimapan, Hidalgo state, Mexico. Named from the locality. Since recorded from France. [M.A. 12-302, 571.]

Huntite. G. T. Faust, 1953. Amer. Min., vol. 38, p. 4. $Mg_3Ca(CO_3)_4$, orthorhombic, as a fine-grained white powder in magnesite deposits in Nevada. Named after Dr. Walter Frederick Hunt (1882-), emeritus professor of mineralogy in the University of Michigan. [M.A. 12-132.]

Hydralsite. D. M. Roy, 1954, Amer. Min., vol. 39, p. 141; R. Roy and E. F. Osborn, *ibid.*, p. 863. Artificial hydrous aluminium silicate, perhaps $2Al_2O_3 \cdot 2SiO_2 \cdot H_2O$, produced by the hydrothermal decomposition of kaolinite. Named from the composition, which would apply to many minerals. [M.A. 12-308, 516.]

Hydrocervantite. L. B. Shlain, 1950. Mém. Soc. Russ. Min., ser. 2, vol. 79, p. 63 (гидросервантит). O. M. Shubnikova, *ibid.*, 1952, vol. 81, p. 45. $Sb_2O_4 \cdot nH_2O$, with 5% H_2O , a variety of cervantite, intermediate between cervantite and stibiconite; alteration product of stibnite.

Hydrocookeite. A. I. Ginzburg, 1953. Doklady Acad. Sci. USSR, vol. 90, p. 871 (гидрокукеит). Hydrated cookeite. [M.A. 12-451.]

Hydrometavauxite. M. C. Bandy, 1946. Mineralogía de Llalagua, Bolivia, La Paz, p. 57 (Metavauxita Hidratada). M.A. 10-9 (hydrated metavauxite); Hintze, Min., 1954, Ergbd. 2, p. 166 (Hydrometavauxit). An undetermined, yellow alteration product of metavauxite.

Hydroparavauxite. M. C. Bandy, 1946. Mineralogía de Llalagua, Bolivia, La Paz, p. 57 (Paravauxita hidratada). M.A. 10-9 (hydrated paravauxite); Hintze, Min., 1954, Ergbd. 2, p. 167 (Hydroparavauxit). An undetermined, yellow, fibrous, alteration product of paravauxite.

Hydroxyl-topaz. W. E. Tröger, 1952. Tabellen opt. Bestim. gesteinsbild. Minerale, p. 146 (Hydroxyltopas). Synonym of topaz. [M.A. 12-4.]

Ilmenomagnetite. A. F. Buddington, J. Fahey, and A. Vlisidis, 1953. Progr. & Abstr. Min. Soc. Amer., 1953, p. 13; Amer. Min., 1954, vol. 39, p. 318 (abstract). Titaniferous magnetite containing exsolution ilmenite as distinct from any in solid solution. Compare titanomagnetite (2nd List).

Indialite. A. Miyashiro and T. Iiyama, 1954. Proc. Japan Acad., vol. 30, p. 746. Artificial $Mg_2Al_4Si_5O_{18}$, hexagonal, distinct from orthorhombic cordierite. Also found in sediments fused by a burning coal seam in India. Named from the locality. See Osumilite. [M.A. 12-513, 615.]

Irinite. L. S. Borodin and M. E. Kazakova, 1954. Doklady Acad. Sci. USSR, vol. 97, p. 725 (иринит). A metamict cubic mineral (Na,Ce,Th)(Ti,Nb)(O,OH)₃, near loparite. Named after Dr. Irina (Irene) Dmitrievna Borneman-Starynkevich, Ирина Дмитриевна Борнеман-Старынкевич, of the Geol. Min. Inst., Acad. Sci., Moscow. [M.A. 12-462.]

Iron-berlinite. M. A. Gheith, 1953. Amer. Min., vol. 38, p. 621 (iron berlinite). Artificially produced iron phosphate, $FePO_4$, isomorphous with berlinite (Fe in place of Al) and with the quartz-type structure. See Polyquartz. [M.A. 12-238.]

Iron-richterite. O. B. Bøggild, 1953. Mineralogy of Greenland, Meddel. om Grønland, vol. 149, no. 3, p. 282 (Iron Richterite). Translation of Eisenrichterit (q.v.). See also ferririchterite.

Iron-sericite. H. Minato and Y. Takano, 1952. Sci. Papers College Gen. Educ. Univ. Tokyo, vol. 2, p. 194 (iron sericite). A sericitic clay from Japan containing Fe_2O_3 5.74, FeO 1.50 %, MgO trace. See Magnesium-sericite. [M.A. 12-221.]

Iron-uranite. d'A. George, 1949. [U.S. Atomic Energy Comm., RMO-563]; C. Frondel, *Min. Mag.*, 1954, vol. 30, p. 343 ('iron uranite'). An incompletely examined mineral from New Mexico, perhaps the same as bassetite or kahlerite (q.v.).

Isokite. T. Deans and J. D. C. McConnell, 1955. *Min. Mag.*, vol. 30, p. 681. CaMgPO_4F , monoclinic, isomorphous with tilasite with P in place of As. White spherulites from a carbonatite plug near Isoka, Northern Rhodesia. Named from the locality.

Ivanovite. E. I. Nefedov, 1953. *Mém. Soc. Russ. Min.*, ser. 2, vol. 82, p. 317 (Ивановит). Hydrous chloro-borate of Ca (and K?), monoclinic (pseudo-hexagonal), Inder salt deposits, Kazakhstan. [M.A. 12-352.]

Kahlerite. H. Meixner, 1953. *Der Karinthin*, no. 23, p. 277 (Kahlerit, Eisenarsenuranglimmer). Hydrous arsenate of uranyl and iron, $\text{Fe}(\text{UO}_2)(\text{AsO}_4) \cdot 8\text{H}_2\text{O}$, as yellow rectangular plates probably monoclinic, from Hüttenberg, Carinthia. Named after Dr. Fritz Kahler, geologist, of the Carinthian Landesmuseum at Klagenfurt. [M.A. 12-353; *Min. Mag.* 30-344.]

Kamiokalite. K. Sakurai, H. Nagashima, and E. Sorita, 1952. [*Syumi-no-Tigaku* (Amateur Geologist), vol. 5, p. 170] abstract in *Amer. Min.*, 1955, vol. 40, p. 367 (Kamiokalite). Z. Harada, *Journ. Fac. Sci. Hokkaido Univ.*, 1954, ser. 4, vol. 8, p. 317 (Kaniokaite). Blue monoclinic crystals, $3\text{CuO} \cdot 3\text{ZnO} \cdot \text{P}_2\text{O}_5 \cdot 7\text{H}_2\text{O}$. A variety rich in zinc of veszelite; compare arakawaite (9th List). Named from the locality, Kamioka mine, Japan.

Keatite. R. B. Sosman, 1954. *Science* (Amer. Assoc. Adv. Sci.), vol. 119, p. 738 (keatite), p. 739 (silica K). A high-pressure tetragonal form of silica prepared hydrothermally by Paul P. Keat, after whom it is named. [M.A. 12-410.]

Knipovichite. E. I. Nefedov, 1953. *Mém. Soc. Russ. Min.*, ser. 2, vol. 82, p. 317 (Книповичит). Hydrous carbonate of Ca, Al, Cr, radiating fibres, optically biaxial, pink. [M.A. 12-352.]

Koivinite. A. A. Kukharensko, 1951. *Mém. Soc. Russ. Min.*, ser. 2, vol. 80, p. 238 (койвинит); V. A. Frank-Kamenetzky, A. I. Komkov, and V. V. Nardov, *ibid.*, 1953, vol. 82, p. 297. An incompletely described mineral (locality?) near florencite. Named perhaps from кой (that) and винить (to criticize). [M.A. 12-411.]

Kokimbit. S. I. Naboko, *Bull. Volcan. Station, Kamchatka*, 1953, no. 18, p. 53 (кокимбит). Double transliteration of coquimbite. [M.A. 12-542.]

Kruzhanovskite, Kryjanovskite, Kryschanowskit. American (Amer. Min., 1951, vol. 36, p. 382), French (Bull. Soc. Franç. Min. Crist., 1952, vol. 75, pp. 175, 315), and German (Hintze, Min., 1954, Ergbd. 2, pp. 201, 204) transliterations of *крузжановскит*, *kryzhanovskite* (19th List). [M.A. 11-189.]

Kurgantaite. Y. Y. Yarzhemsky, 1952. Min. Sbornik, Lvov Geol. Soc., no. 6, p. 169 (кургантаит). Hydrous metaborate $2(\text{Sr,Ca})\text{O} \cdot 2\text{B}_2\text{O}_3 \cdot \text{H}_2\text{O}$. Named from the locality Kurgan-tau (Курган-тай), Inder district, Kazakhstan. [M.A. 12-513.]

Kuttenbergite. R. Koechlin, 1928. Min. Taschenbuch, Wien, p. 36 (Kuttenbergit). Synonym of Kutnohorite (4th List). Named from the locality Kutná Hora (Czech) = Kuttenberg (German).

Laueite. H. Strunz, 1954. Naturwissenschaften, vol. 41, p. 256 (Laueit). Hydrous basic phosphate, $\text{MnFe}_2''(\text{PO}_4)_2(\text{OH})_2 \cdot 8\text{H}_2\text{O}$, triclinic, honey-brown, from Hagendorf, Bavaria. Named after Professor Max (Felix Theodor) von Laue (1879-), of Berlin. [M.A. 12-410.]

Lead-becquerelite. J. W. Frondel and F. Cuttitta, 1953. Amer. Min., vol. 38, pp. 1019, 1024 (lead-becquerelite). A doubtful variety of becquerelite, perhaps $\text{PbO} \cdot 6\text{UO}_2 \cdot 11\text{H}_2\text{O}$. [M.A. 1-377, 11-109, 12-444.]

Likasite. A. Schoep, W. Borchert, and K. Kohler, 1955. Bull. Soc. Franç. Min. Crist., vol. 78, p. 84. Nitrate and phosphate of copper, $\text{Cu}_{12}(\text{NO}_3)_4(\text{PO}_4)_2(\text{OH})_{14}$, as sky-blue orthorhombic plates from Likasi, Belgian Congo. Named from the locality. [M.A. 12-568.]

Limaite. J. M. Coteló Neiva, 1954. Mem. Notíc. Mus. Laborat. Min. Geol. Univ. Coimbra, no. 36, pp. 17, 20 (limaite), p. 55 (limaite), p. 59 (limaite); Estudos, Notas e Trab. Serv. Fomento Mineiro [1954], vol. 9, p. 111. Stanniferous variety of gahnite, $(\text{Zn,Sn})\text{Al}_2\text{O}_4$ with $\text{Zn}:\text{Sn} = 3:1$. Octahedra in pegmatite from near Ponte do Lima, Portugal. Named from the locality. Previously mentioned and later described, without name, in Bull. Soc. Franç. Min. Crist., 1952, vol. 75, p. xxxvi; 1955, vol. 78, p. 97. [M.A. 12-572.]

Lime-dravite. F. H. Pough, 1953. See Soda-dravite.

Lime-iron-olivine. R. W. Nurse and H. G. Midgley, 1953. Journ. Iron & Steel Inst., vol. 174, p. 124 (lime-iron olivine, CaFeSiO_4). Quoted from N. L. Bowen, J. F. Schairer, and E. Posnjak, Amer. Journ. Sci., 1933, ser. 5, vol. 25, p. 275; vol. 26, p. 195, who, however, have only the form Ca-Fe olivine for artificial material. [M.A. 5-252, 454, 12-197.]

Lipscombite. M. A. Gheith, 1953. Amer. Min., vol. 38, p. 612 (pronounced lips-kum-ite). Artificially produced tetragonal iron phosphate approximating to $\text{Fe}''\text{Fe}_2''(\text{PO}_4)_2(\text{OH})_2$. To replace the name

iron-lazulite (19th List). Named after Professor William Nunn Lipscomb (1909–) of the University of Minnesota. See Barbosalite and Ferroferri-lazulite. [M.A. 12-238.]

Lithian-muscovite. A. A. Levinson, 1952. *Progr. & Abstr. Min. Soc. Amer.*, p. 30 (lithium muscovite); *Amer. Min.*, 1953, vol. 38, p. 88 (lithian muscovite), p. 93 (lithian-muscovite). A structural variation in the muscovite polymorphs containing Li_2O 3.4–4.0 %. Distinct from lithium-muscovite (15th List). [M.A. 12-98.]

Lithia-tourmaline. R. R. Riggs, 1888. *Amer. Journ. Sci.*, ser. 3, vol. 35, p. 50 (Lithia tourmaline). P. Quensel, *Geol. För. Förh. Stockholm*, 1939, vol. 61, p. 63 (lithium tourmaline), p. 76 (Li-tourmaline). J. Sekanina, *Věstník Stat. Geol. Úst. Česk.*, 1946, p. 302 (lithné turmaliny *pl.*), p. 311 (tourmalines lithiques). [M.A. 7-335, 10-119.]

Liversite. C. F. Barb, *Quart. Colorado Sch. Mines*, 1944, vol. 39, p. 18 (“liversite”). Local name for elaterite from Strawberry river, Utah.

Livesite. K. Carr, R. W. Grimshaw, and A. L. Roberts, 1951. *Trans. Brit. Ceramic Soc.*, vol. 51, p. 339 (name in table without description). A constituent of Yorkshire fireclay presumably intermediate between kaolinite and halloysite. R. E. Grim, in discussion at symposium, Problems of clay and laterite genesis, *Amer. Inst. Mining & Metall. Engineers*, New York, 1952, p. 221 (levisite); *Clay mineralogy*, New York & London, 1953, p. 49 (levisite). Named after Sir George Thomas Livesey (1834–1908), in whose memory the Livesey professorship of coal gas and fuel was founded in 1910 in Leeds University. [M.A. 12-184, 212; cf. *Min. Mag.* 30-139.]

Lodochnikovite. E. I. Nefedov, 1953. *Mém. Soc. Russ. Min.*, ser. 2, vol. 82, p. 317 (Лодоchnikовит). Al,Mg,Ca,Fe oxide, monoclinic, bluish-green, in skarn with spinel, &c. Named after Vladimir (formerly Wartan) N. Lodochnikov, Владимир Н. Лодоchnikов (1887–1942), Petrologist on the Geological Survey of Russia. [M.A. 12-352.]

Lupikkite. M. K. Palmunen, 1939. [*Geol. Toimikunta, Geoteknillisiä julkaisuja*, no. 44.] M. Saksela, *Bull. Comm. Géol. Finlande*, 1951, no. 154, p. 191 (Lupikkit). A mixture of cubanite, pyrrhotine, chalcopyrite, and blende, from Lupikko, Pitkärata, Finland. [M.A. 12-70.]

Maakite. B. K. Polenov, 1910. *Protok. Obshch. Estestv. Kazan. Univ.*, for 1908–9, no. 246, p. 8 (маакит). J. Paclt, *Neues Jahrb. Min., Monatshefte*, 1953, p. 189 (Maakit). Synonym of hydrohalite ($\text{NaCl} \cdot 2\text{H}_2\text{O}$), cryohalite (Kryohalit), and bihydrate (a chemical term). Named after Richard Karlovich Maak, Р. К. Маакъ (1825–87), who in 1850 collected material from a salt lake in Yakutsk, Siberia. See Cryohalite. [M.A. 12-239.]

Magnaluminumoid. Zeits. Geologie, Berlin, 1952, vol. 1, p. 361. Abbreviation of magnaluminumoxide (19th List).

Magnesian chamosite. F. A. Bannister and W. F. Whittard, 1945. Min. Mag., vol. 27, p. 99 (Magnesian chamosite). Variety of chamosite containing MgO 8.75 %.

— H. S. Yoder, 1952. Amer. Journ. Sci., Bowen volume, p. 588 (Magnesian chamosite), p. 597 (magnesian-chamosite). Artificially produced $3\text{MgO} \cdot \text{Al}_2\text{O}_3 \cdot 2\text{SiO}_2$, corresponding to chamosite with MgO in place of FeO. [M.A. 12-83.]

Magnesian arfvedsonite. W. E. Tröger, 1952. Tabellen opt. Bestim. gesteinsbild. Minerale, p. 146 (Magnesian arfvedsonit). Variety of arfvedsonite.

Magnesian magnetite. (Author?). J. D. Dana, Min., 5th edit., 1868, p. 150 (Magnesian magnetite). A. E. Fersman and O. M. Shubnikova, Geochem. Min. Companion, Moscow, 1937, p. 167 (Магнезиомагнетит). Variety of magnetite containing some MgO.

Magnesium-kaolinite. N. E. Efremov, 1954. Bull. Geol. Soc. Amer., [1955], vol. 65, no. 12 (for 1954), p. 1374 (magnesium kaolinite). A kaolinite-like mineral with the composition $2\text{MgO} \cdot 2\text{Al}_2\text{O}_3 \cdot 3\text{SiO}_2 \cdot 4\text{H}_2\text{O}$, one SiO_2 being replaced by 2MgO . [M.A. 12-570.]

Magnesium-morenosite. C. O. Hutton, 1947. Amer. Min., vol. 32, p. 559 (magnesian morenosite). Morenosite containing some magnesium, $(\text{Ni}, \text{Mg})\text{SO}_4 \cdot 7\text{H}_2\text{O}$. See Nickel-epsomite.

Magnesium-sericite. H. Minato and Y. Takano, 1952. Papers College Gen. Educ. Univ. Tokyo, vol. 2, p. 196 (magnesium sericite). A sericitic clay from Japan containing MgO 2.74, Fe_2O_3 0.46, FeO 1.57 %. See Iron-sericite. [M.A. 12-221.]

Magnesium-vermiculite. G. F. Walker, 1950. Nature, London, vol. 166, p. 695 (Magnesium-vermiculite). A. McL. Mathieson and G. F. Walker, Amer. Min., 1954, vol. 39, p. 231 (Magnesium-vermiculite, Mg-vermiculite). Regarded as a clay-mineral occurring in soils and analogous to montmorillonite. [M.A. 12-437.]

Magnymontmorillonite. I. D. Sedletzky, 1951. Priroda, Acad. Sci. USSR, vol. 40, no. 2, p. 61 (Магниймонтмориллонит). Abstract in Zentralblatt Min., Teil I, 1953, for 1952, p. 246 (Magnijmontmorillonit). Synonym of Magnesium-montmorillonite (16th List). [M.A. 12-239.]

Mangan-crocidolite. P. de Wijkerslooth, 1943. Madan Tetkik ve Arama Enstitüsü Mecmuası, Ankara, vol. 8, p. 99 (manganez krokidolit, Turkish), p. 108 (Mangankrokidolit, German). Variety of crocidolite containing some manganese, from manganese ore deposits in Anatolia. [M.A. 9-241.]

Manganese-hörnesite. O. Gabrielson, 1951. *Arkiv Min. Geol.* Stockholm, vol. 1, p. 333 (manganese-hoernesite). $(\text{Mn,Mg})_3(\text{AsO}_4)_2 \cdot 8\text{H}_2\text{O}$, monoclinic, isomorphous with hörnesite $\text{Mg}_3(\text{AsO}_4)_2 \cdot 8\text{H}_2\text{O}$, and bobierrite $\text{Mg}_3(\text{PO}_4)_2 \cdot 8\text{H}_2\text{O}$. From Långban, Sweden. Named after Moriz Hörnes (1815–1868) of Vienna. [M.A. 12–130.]

Manganpyrosmalite. C. Frondel and L. H. Bauer, 1953. *Amer. Min.*, vol. 38, p. 755. Variety of pyrosmalite with Mn in excess of Fe. [M.A. 12–236.]

Mangan-rockbridgeite. M. L. Lindberg, 1949. *Amer. Min.*, vol. 34, p. 341 (manganian rockbridgeite); M.A. 1950, 11–8 (manganiferous rockbridgeite); Hintze, *Min.*, 1954, *Ergbd.* 2, p. 242 (Mangan-Rockbridgeite). A dufrenite-like mineral $(\text{Fe}'',\text{Mn}'')\text{Fe}_4''(\text{PO}_4)_3(\text{OH})_5$, intermediate between frondelite $\text{Mn}''\text{Fe}_4''(\text{PO}_4)_3(\text{OH})_5$ and rockbridgeite $\text{Fe}''\text{Fe}_4''(\text{PO}_4)_3(\text{OH})_5$, (19th List, where these formulae are incorrectly given).

Mangan-sicklerite. Dana, *Min.*, 7th edit., 1951, vol. 2, p. 672; Hintze *Min.*, 1954, *Ergbd.* 2, p. 243 (Mangansicklerit). Variant of Manganese-sicklerite (16th List), Mangani-sicklerite (19th List).

Manganzoisit. Hintze, *Min.*, 1954, *Ergbd.* 2, p. 244. Variant of Manganese-zoisite (14th List).

Metabayleyite. T. W. Stern and A. D. Weeks, 1952. *Amer. Min.*, vol. 37, p. 1060. Artificially dehydrated bayleyite (18th List). [M.A. 12–281.]

Metatyuyamunite. A. D. Weeks, M. E. Thompson, and R. B. Thompson, 1953. *Progr. & Abstr. Min. Soc. Amer.*, p. 43; *Amer. Min.*, 1954, vol. 39, p. 348 (abstract). A. D. Weeks and M. E. Thompson [*Bull. U.S. Geol. Surv.*, 1954, no. 1009–B, p. 37]; *Amer. Min.*, 1954, vol. 39, p. 1037 (abstract). A lower hydrate $5\text{--}7\text{H}_2\text{O}$ of tyuyamanunite $\text{Ca}(\text{UO}_2)(\text{VO}_4)_2 \cdot 9\text{H}_2\text{O}$ (6th List). [M.A. 12–511, 566.]

Mikheevite. E. I. Nefedov, 1953. *Mém. Soc. Russ. Min.*, ser. 2, vol. 82, p. 317 (Михеевит). $\text{K}_2\text{Ca}_4(\text{SO}_4)_5 \cdot \text{H}_2\text{O}$, triclinic, in salt deposits. Named after V. I. Mikheev, В. И. Михеев. [M.A. 12–352.]

Mikroantigorit. Hintze, *Min.*, *Ergbd.* 2, p. 264. Variant of Microantigorite (13th List).

Mirzaanite. L. D. Melikadze and T. A. Eliava, 1948. [*Kolloid. Zhurnal, Voronezh*, vol. 10, p. 115.] Abstracts in *Amer. Chem. Abstr.*, 1949, vol. 43, col. 5350 (mirzaanite); *Brit. Chem. Abstr.*, 1949, B II, col. 356; *Bull. Soc. Franç. Min. Crist.*, 1954, vol. 77, p. 1270 (mirsaanite). An elastic bitumen, variety of elaterite, from the Mirzaani (Мирзаани) oil-field, Georgia, Transcaucasia. [M.A. 12–511.]

Mohelnite. R. Dvořák, 1943. [Příroda, Brno, vol. 35, p. 190.] J. Paclt, Neues Jahrb. Min., Monatshefte, 1953, p. 189 (Mohelnit). An incompletely described chlorite in the serpentine of Mohelno, Moravia, perhaps identical with clinochlore or moravite (4th List). Named from the locality. [M.A. 12-240.]

Montmorillonoids. D. M. C. MacEwan, 1951. X-ray identification and mineral structures of clay minerals, Min. Soc., London, p. 86; Clay Min. Bull., 1951, vol. 1, p. 195. Group name for minerals related to the original montmorillonite from Montmorillon, France. [M.A. 11-253.]

Moraesite. M. L. Lindberg, W. T. Pecora, and A. L. de M. Barbosa, 1953. Amer. Min., vol. 38, p. 1126. Hydrrous beryllium phosphate, $\text{Be}_2\text{PO}_4(\text{OH}) \cdot 4\text{H}_2\text{O}$, as white fibrous masses, monoclinic; from Sapucaia pegmatite mine, Brazil. Named after Dr. Luciano Jacques de Moraes, Brazilian geologist. [M.A. 12-301.]

Murdochite. J. J. Fahey, 1953. Progr. & Abstr. Min. Soc. Amer., p. 21; Amer. Min., 1954, vol. 39, p. 327. C. L. Christ and J. R. Clark, *ibid.*, pp. 15, 321. Cu_6PbO_8 as tiny black octahedra with NaCl structure. Named after Prof. Joseph Murdoch (1890-) of the University of California at Los Angeles. [M.A. 12-304.]

Mysite. H. Moissan, 1905. *Traité de chimie minérale*, vol. 4, p. 372. Error for misy. (On the same page the names of other iron sulphates are incorrectly spelt.)

Natro-alumobiotite. D. P. Serdyuchenko, 1954. Doklady Acad. Sci. USSR, vol. 97, p. 317 (натровый алюмобиотит). A composition variety of biotite containing Al_2O_3 22.85, Na_2O 2.76 %. [M.A. 12-535.]

Natro-ferrophlogopite. D. P. Serdyuchenko, 1954. Doklady Acad. Sci. USSR, vol. 97, p. 317 (натровый феррофлогопит). A composition variety of phlogopite containing FeO 15.56, Na_2O 3.18 %. [M.A. 12-535.]

Navajoite. A. D. Weeks, M. E. Thompson, and A. M. Sherwood, 1954. Science (Amer. Assoc. Adv. Sci.), vol. 119, p. 326; Amer. Min., 1955, vol. 40, p. 207. $\text{V}_2\text{O}_5 \cdot 3\text{H}_2\text{O}$, as brown fibres, probably monoclinic, from Arizona. Named after the Navajo Indians. [M.A. 12-408, 567.]

Nenadkevichite. M. V. Kuzmenko and M. E. Kazakova, 1955. Doklady Acad. Sci. USSR, vol. 100, p. 1159 (Ненадкевичит). Niobotitano-silicate $(\text{Na}, \text{Ca})(\text{Nb}, \text{Ti})\text{Si}_2\text{O}_7 \cdot 2\text{H}_2\text{O}$, orthorhombic, in alkalic rock from Kola. Named after Konstantin Avtonomovich Nenadkevich, Константин Автономович Ненадкевич, Russian mineralogist and geochemist. [M.A. 12-569.]

Nickel-epsomite. C. O. Hutton, 1947. Amer. Min., vol. 32, p. 553 (nickelian epsomite); Hintze, Min., 1954, Ergbd. 2, p. 284 (Nickelepsomit). A mineral (NiO 12.22, MgO 9.81 %) of the epsomite

group, approaching morenosite in composition. *See* Magnesium-morenosite. [M.A. 10-388.]

Nickel-magnetite. C. Doelter, 1926. *Mineralchem.*, vol. 3, pt. 2, p. 666 (Nickelmagnetit). *Synonym of trevorite (10th List).*

Nigerite. R. Jacobson and J. S. Webb, 1946. *Bull. Geol. Surv. Nigeria*, no. 17, p. 27. *Earlier reference than that given in 18th List.*

Nitrate-hydrotalcite. D. M. Roy, R. Roy, and E. F. Osborn, 1953. *Amer. Journ. Sci.*, vol. 251, p. 355 (nitrate-hydrotalcite). Artificially produced $Mg_6Al_2(N_2O_5)(OH)_{16} \cdot 4H_2O$, analogous to hydrotalcite ('carbonate-hydrotalcite') with N_2O_5 in place of CO_2 . [M.A. 12-196.]

Nogisawaite. Z. Harada, *Journ. Fac. Sci. Hokkaido Univ.*, 1954, sect. 4, vol. 8, p. 322 [M.A. 12-477]. *Another spelling of nogizawalite (19th List), perhaps a variety of beckelite. [M.A. 11-311.]*

Ocrite. H. von Philipsborn, 1953. *Tafeln zum Bestimmen der Mineralien*, Stuttgart, p. xi (Bi-ocrit, Mo-ocrit), p. 72 (Wismutocker, Molybdänocker). *Collective name for powdery ochres. [M.A. 12-297.]*

Ordoñezite. G. Switzer and W. F. Foshag, 1953. *Progr. & Abstr. Min. Soc. Amer.*, p. 40; *Amer. Min.*, 1954, vol. 39, p. 346; 1955, vol. 40, p. 64. Zinc antimonate, $ZnSb_2O_6$, tetragonal, brown crystals in tin ore from Guanajuato, Mexico. *Named after the late Ezequiel Ordoñez, Mexican geologist. [M.A. 12-303, 512.]*

Ortho-antigorite. G. W. Brindley and O. von Knorring, 1954. *Amer. Min.*, vol. 39, p. 794 (ortho-antigorite). *A variety of antigorite based on an ortho-hexagonal cell; from Unst, Shetland. [M.A. 12-463.]*

Ortho-chevkinite. S. Bonatti and G. Gottardi, 1953. *Rend. Soc. Min. Ital.*, vol. 9, p. 242 (orto-chevkinite). *Orthorhombic chevkinite from Madagascar [M.A. 1-376, 2-269], as distinct from clino-chevkinite (q.v.). [M.A. 12-240, 498.]*

Ortho-chrysotile. E. J. W. Whittaker, 1951. *See* Clino-chrysotile.

Osumilite. A. Miyashiro, 1953. *Proc. Japan Acad.*, vol. 29, p. 321 (osumilite). *A mineral resembling cordierite, but hexagonal, $(K,Na,Ca)(Mg,Fe^{2+})_2(Al,Fe^{3+},Fe^{2+})_3(Si,Al)_{12}O_{30} \cdot H_2O$, in volcanic rock from prov. Ōsumi, Japan. Named from the locality. [M.A. 12-304, 616.]*

Oxytschildrenit. K. F. Chudoba, Hintze, *Min.*, 1954, *Ergbd.* 2, p. 294 (Oxychildrenit, richtiger Oxytschildrenit?). *Superfluous synonym of oxychildrenite (19th List). Named after John George Children (1777-1852) of the British Museum.*

Palermoite. M. E. Mrose, 1952. *Progr. & Abstr. Min. Soc. Amer.*, p. 35; *Bull. Geol. Soc. Amer.*, vol. 63, p. 1283; *Amer. Min.*, 1953, vol. 38, p. 354 (abstract). $(Li,Na)_4SrAl_9(PO_4)_8(OH)_9$, orthorhombic prisms in

pegmatite from Palermo mine, North Groton, New Hampshire. Named from the locality. [M.A. 12-131.]

Palladite. V. I. Vernadsky, 1914. Essay descrip. Min., St. Petersburg, pp. 128, 232, 262 (палладит). Variant of palladinite, PdO (C. U. Shepard 1857).

Pallite. L. Capdecemme and R. Pulou, 1954. Compt. Rend. Acad. Sci. Paris, vol. 239, p. 288. A hypothetical type of Ca-Al phosphate in phosphorites from Senegal. Derivation of name not given. [M.A. 12-440.]

Parahalloysite. D. P. Serdyuchenko, 1953. Problems (вопросы) Petr. Min. (Acad. Sci. USSR), vol. 2, p. 100 (парагаллузит). Clays similar to halloysite in composition but to silica-poor montmorillonite in structure. Mg-, Fe-Mg-, and Fe-Cr- varieties are distinguished. [M.A. 12-513.]

Parasymplesite. T. Ito, H. Minato, and K. Sakurai, 1954. Proc. Japan Acad., vol. 30, p. 318. Monoclinic $\text{Fe}_3(\text{AsO}_4)_2 \cdot 8\text{H}_2\text{O}$, dimorphous with triclinic symplesite; from Japan. [M.A. 12-412.]

Pavonite. E. W. Nuffield, 1953. Progr. & Abstr. Min. Soc. Amer., p. 33; Amer. Min., 1954, vol. 39, pp. 338, 409. Contrib. Canadian Min., 1954, vol. 5, pt. 6. AgBi_3S_5 , monoclinic, for a Bolivian mineral previously referred to alaskaite and to benjaminite. Named from the Latin pavo, pavonis, peacock, in honour of Prof. Martin Alfred Peacock (1898-1950) of the University of Toronto. [M.A. 12-304, 410.]

Peligotite. V. G. Melkov, 1942. Mém. Soc. Russ. Min., vol. 71, p. 9 (пелигоит, *sic*), p. 11 (peligotite). A secondary uranium sulphate, ' $\text{CuO} \cdot 2\text{UO}_3 \cdot 2\text{SO}_3 \cdot 3\text{H}_2\text{O} \cdot \text{aq}$ ', from Tadzhikstan. Named after Eugène Melchior Pélégot (1811-90), French chemist, who isolated metallic uranium in 1840. [Not sufficiently distinguished from johannite.] [M.A. 12-461.]

Pitankite. (Author?). A. K. Boldyrev, Kurs opisatelnoi min., Leningrad, 1926, vol. 1, p. 259 (питанкит, index only); A. E. Fersman and O. M. Shubnikova, Sputnik geochim. min., Moscow, 1937, p. 187. ' $2(\text{Ag,Pb,Cu})\text{S} \cdot \text{Bi}_2\text{S}_3$ '. (Locality?, derivation?)

Poliolite. Italian spelling of polyhalite.

Poliophane. F. Machatschki, 1953. Spezielle Mineralogie, Wien, p. 226 (Fahle, Poliophane, *pl.*). Group name for fahlore (grey copper) and bournonite. Named from *πολιός*, grey.

Poly-, prefix in some 30 mineral names (polybasite, polycrase, polyhalite, polyaugite, &c.) also in the terms polymorph, polymer, polysynthetic twinning, polyhedron, &c. It has now been extended with other significations, giving rise to polyonymous complexities.

Polybrookite. F. Machatschki, *Spezielle Mineralogie*, Wien, 1953, p. 319 (Polybrookite, *pl.*), p. 371 (Polybrookit). Columbite and tantalite isotypic with brookite. [M.A. 12-232.]

Polycrystal. [G. Donnay, *Amer. Cryst. Assoc.*, June 1953], G. Donnay and J. D. H. Donnay, *Amer. Min.* 1953, vol. 38, p. 941. An apparently single crystal consisting of a regular intergrowth of different minerals. [M.A. 12-329.]

Polygorskite. C. E. Marshall, *Colloid chemistry of silicate minerals*, New York, 1949, p. 54. Error for polygorskite.

Polyhydrate. V. I. Popov and A. L. Vorobiev, 1947. *Mém. Soc. Russ. Min.*, vol. 76, p. 268 (полугидрат). Hintze, *Min.*, 1954, *Ergbd.* 2, p. 315 (Polyhydrat). Error for hemi(polu)hydrate $\text{CaSO}_4 \cdot \frac{1}{2}\text{H}_2\text{O}$. [M.A. 11-366.] See Miltonite (19th List), Bassanite (6th List).

Polymigmatite. F. Machatschki, 1953, *ibid.*, p. 319 (Polymigmatit). Error for polymigmatite (μυγνίω, to mix, not μίγμα, a mixture).

Polymineralic rocks. F. Machatschki, 1953, *ibid.*, p. 1 (Polyminerale Gesteine), as distinct from monomineralic rocks.

Polyophane. F. Machatschki, *ibid.*, p. 371. Error for poliophane (q.v.).

Polyphant stone. Greyish-green potstone flecked with white and brown, from Polyphant, Cornwall, used as an ornamental stone in churches since Norman times.

Polyplatinum. F. Machatschki, 1953, *ibid.*, p. 302 (Polyplatin). Platinum containing Fe, Ir, Os, Rh, Pd.

Polyquartz. F. Machatschki, 1953, *ibid.*, p. 82 (Polyquarze, *pl.*), p. 371 (Polyquarz). Compounds AlPO_4 (berlinite), AlAsO_4 , FePO_4 , BPO_4 , isotypic with quartz (SiSiO_4). (The corresponding polymorphs have been named Al-phosphotridymite and Al-phosphorocristobalite, R. L. Manly, 1950, M.A. 11-180.)

Polyrutile. F. Machatschki, 1953, *ibid.*, p. 118 (Polyrutile, *pl.*), p. 371 (Polyrutil). Tapiolite and mossite isotypic with rutile. (Compare polyrutiles and trirutiles of V. M. Goldschmidt, 1923, M.A. 3-182.)

Polywurtzite. F. Machatschki, 1953, *ibid.*, p. 371 (Polywurtzit), p. 305 (Polywurtzite, *pl.*). Hexagonal polymorphs of ZnS .

Potassium-bentonite. C. E. Weaver and T. F. Bates, 1951. *Bull. Geol. Soc. Amer.*, vol. 62, p. 1488 (potassium bentonites, K-bentonites). C. E. Weaver, *Amer. Min.*, 1953, vol. 38, p. 698. A montmorillonite clay containing potassium, from Ordovician limestone, Pennsylvania. Same as metabentonite, 14th List.

Potassium-melilite. R. W. Nurse and H. G. Midgley, 1953. *Journ. Iron & Steel Inst.*, vol. 174, p. 121 (Potassium-melilite). Hypothetical

end-member, $\text{KCaAlSi}_2\text{O}_7$, of the melilite series. Present in small amount in natural melilite and up to 20 % in solid solution in artificial gehlenite. [M.A. 12-197.]

Potassium-priderite. K. Norrish, 1951. *Min. Mag.*, vol. 29, p. 500 (K-priderite). Hintze, *Min.*, 1954, *Ergbd.* 2, p. 31 (Kaliumpriderit), p. 189 (Kalium-Priderit). *See* Barium-priderite.

Prokoenite. W. Berdesinski, 1952. *Neues Jahrb. Min., Abh.*, vol. 84, p. 147 (Prokoenit). An early stage in the artificial production of koenite. [M.A. 12-77.]

Protowollastonite. T. Ito, 1950. X-ray studies on polymorphism. Tokyo, 1950, p. 105 (protowollastonite). Hypothetical monoclinic wollastonite, which by different modes of twinning has given rise to monoclinic parawollastonite (14th List) and the more common form of triclinic wollastonite. [M.A. 11-308.]

Pseudo-willemite. G. Sabatier, 1952. *Bull. Soc. Franç. Min. Crist.*, vol. 75, p. 521 (pseudo-willémité). Cubic modification of Zn_2SiO_4 , artificially produced. [M.A. 12-81.]

Rabbittite. M. E. Thompson, A. D. Weeks, and A. M. Sherwood, 1954. [Trace Elements Rep. U.S. Geol. Surv., no. 405, p. —.] A. D. Weeks and M. E. Thompson. [Bull. U.S. Geol. Surv., 1954, no. 1009-B, p. —.] Abstract in *Amer. Min.*, 1954, vol. 39, p. 1037 (rabbittite). *Amer. Min.*, 1955, vol. 40, p. 201 (rabbittite). Uranyl carbonate with Ca and Mg, $\text{Ca}_3\text{Mg}_2(\text{UO}_2)_2(\text{CO}_3)_6(\text{OH})_4$. Monoclinic, minute greenish-yellow needles as an efflorescence on mine walls in Utah. Named after John Charles Rabbitt (1907-) of the U.S. Geological Survey. [M.A. 12-511, 566-7.]

Reedmergnerite. C. Milton, J. M. Axelrod, and F. S. Grimaldi, 1954. *Bull. Geol. Soc. Amer.* [1955], vol. 65, no. 12 (for 1954), p. 1286; *Amer. Min.*, 1955, vol. 40, p. 326 (abstract). $\text{Na}_2\text{O} \cdot \text{B}_2\text{O}_3 \cdot 6\text{SiO}_2$, triclinic, small colourless crystals from oil wells in Utah. Named after Frank S. Reed and John L. Mergner, technicians of the United States Geological Survey. [M.A. 12-511.]

Ribeirite. W. Florencio, 1952. *Anais Acad. Brasil. Cienc.*, vol. 24, p. 259 (ribeirita). An altered zircon containing yttrium earths 7.45 %, &c., from Brazil. Named after Prof. Joaquim Costa Ribeiro. [M.A. 12-305.]

Röntgenite. G. Donnay, 1953. *Amer. Min.*, vol. 38, p. 868 (roentgenite). Minute wax-yellow to brown, trigonal pyramidal crystals, intergrown with synchysite, parisite, and bastnäsite, from Narsarsuk, Greenland. From X-ray and optical data the composition is deduced as $3\text{CeFeCO}_3 \cdot 2\text{CaCO}_3$. Named after Wilhelm Conrad von Röntgen (1845-1923) of München, discoverer of X-rays (Röntgen rays). [M.A. 12-238, 329.]

Rutilohematite. A. F. Buddington, J. Fahey, and A. Vlisidis, 1953. *Progr. & Abstr. Min. Soc. Amer.*, 1953, p. 13; *Amer. Min.*, 1954, vol. 39, p. 319 (rutilohematite). The most oxidized facies of Fe-Ti oxides. *See* Ilmenomagnetite.

Sahamalite. H. W. Jaffe, R. Meyrowitz, and H. T. Evans, 1953. *Amer. Min.*, vol. 38, p. 741. $(\text{Mg,Fe})(\text{Ce,La,Nd})_2(\text{CO}_3)_4$, monoclinic, as minute colourless crystals from the alteration of bastnäsite. From Mountain Pass, San Bernardino Co., California. Named after Professor Thure Georg Sahama (1910–) of Helsinki, Finland. [M.A. 12-237.]

Schilkinit. *See* Chilkinite.

Shcherbakovite. E. M. Eskova and M. E. Kazakova, 1954. *Doklady Acad. Sci. USSR*, vol. 99, p. 837 (щербаковит). Silicate and titanoniobate $\text{Na}(\text{K,Ba})_2(\text{Ti,Nb})_2(\text{Si}_2\text{O}_7)_2$, monoclinic. Named after D. I. Shcherbakov, Д. И. Щербakov. [M.A. 12-569.]

Shubnikovite. E. I. Nefedov, 1953. *Mém. Soc. Russ. Min.*, ser. 2, vol. 82, p. 317 (Шубниковит). Hydrous chloro-arsenate of Cu, Ca, and K, orthorhombic?, blue plates. Named after Aleksei Vasilievich Shubnikov, Алексей Васильевич Шубников (1887–), Director of the Crystallographic Institute, Acad. Sci., Moscow. [M.A. 12-352.]

Silikatsulfatapatit. Synonym of wilkeite. *See* Bleiapatit.

Skorzalith. W. E. Tröger, 1952. *Tabellen opt. Bestim. gesteinsbild. Minerale*, p. 147. German form of scorzalite (18th List), named after E. P. Scorza.

Soda-adularia, Soda-sanidine. A. N. Winchell, 1927. *Optical mineralogy*, part II, 2nd edit., pp. 318, 322 (soda-adularia, soda-sanidine); 4th edit., 1951, p. 302 (sodian adularia, sodian sanidine). Varieties of soda-orthoclase (q.v.). *See* Natronsanidine (5th List).

Soda-augite. K. Yagi, 1953. *Bull. Geol. Soc. Amer.*, vol. 64, p. 781. Augite containing Na_2O up to 1.7%, intermediate between augite and aegirine-augite, as zoned crystals and single crystals.

Soda-dravite. F. H. Pough, 1953. *Field guide to rocks and minerals*, Boston, p. 280 (Soda-dravite). $\text{NaMg}_3\text{B}_3\text{Al}_3(\text{Al}_3\text{Si}_6\text{O}_{27})(\text{OH})_4$, a brown variety of tourmaline. Similarly, lime-dravite, $\text{CaMg}_3\text{B}_3\text{Al}_3(\text{Al}_3\text{Si}_6\text{O}_{27})(\text{O,OH})_4$, a white variety.

Soda-orthoclase. J. P. Iddings, 1906. *Rock minerals*, pp. 203, 232. 'Those apparently monosymmetric feldspars with notable amount of soda may be called soda-orthoclase. . . . When the soda equals or exceeds the potash the crystals exhibit triclinic symmetry and are soda-microcline'. *See* Soda-microcline = Natronmikroklin = anorthoclase (2nd List).

Sodium-melilite. R. W. Nurse and H. G. Midgley, 1953. Journ. Iron & Steel Inst., vol. 174, p. 121. Artificially produced end-member, $\text{NaCaAlSi}_2\text{O}_7$, of the melilite series. Distinct from the hypothetical end-member soda-melilite, $\text{Na}_2\text{Si}_3\text{O}_7$ (12th List). [M.A. 12-197.]

Stepanovite. E. I. Nefedov, 1953. Mém. Soc. Russ. Min., ser. 2, vol. 82, p. 317 (Степановит). Oxalate $\text{NaMgFe}^{\text{III}}(\text{C}_2\text{O}_4)_3 \cdot 8-9\text{H}_2\text{O}$, trigonal, yellowish-green, granular, in coal. [M.A. 12-353.]

Strontian-apatite. E. S. Larsen, M. H. Fletcher, and E. A. Cisney, 1952. Amer. Min., vol. 37, p. 656 (Strontian apatite, Strontian fluorapatite, Strontian hydroxylapatite). Variety of apatite containing SrO 11.6%. [M.A. 12-225.]

Suanite. T. Watanabe, 1952. [Geology and mineral resources of the Far East]; Min. Journ. (Min. Soc. Japan), 1953, vol. 1, p. 54. Pyroborate of magnesium, $\text{Mg}_2\text{B}_2\text{O}_5$, monoclinic, from Suan, Korea. Named from the locality. [M.A. 12-411.]

Szamozyt. Polish spelling of chamosite. [M.A. 12-350.]

Tavorite. M. L. Lindberg and W. T. Pecora, 1954. Science (Amer. Assoc. Adv. Sci.), vol. 119, p. 739. Hydrous lithium ferric phosphate, $\text{LiFe}(\text{PO}_4)(\text{OH})$, as yellow fine-grained aggregates from Brazil. Named after Prof. Elysiario Tavora, University of Brazil, Rio de Janeiro. [M.A. 12-408.]

Tchinglusuite, Tschinglusuit. French (Bull. Soc. Franç. Min. Crist., 1951, vol. 74, p. 191) and German (Hintze, Min., 1954, Ergbd. 2, p. 399) transliterations of чинглуцит, chinglusuite (15th List).

Tellurobismutite. M. N. Short, 1931. Bull. U.S. Geol. Surv., no. 825, p. 73 (telluro-bismutite). Synonym of tellurobismuthite (9th List) Bi_2Te_3 , as distinct from tetradymite ($\text{Bi}_2\text{Te}_2\text{S}$). The earlier names Tellurwismuth (J. J. Berzelius, 1823) and tellurbismuth (D. M. Balch, 1863) covered both. [M.A. 8-8, 109, 183, 311; 9-213, 262; 10-126, 446.]

Tertschite. H. Meixner, 1953. Fortschr. Min., vol. 31 (for 1952), p. 39 (Tertschit). Hydrous calcium borate, $\text{Ca}_4\text{B}_{10}\text{O}_{19} \cdot 20-21\text{H}_2\text{O}$, finely fibrous, probably monoclinic, from Turkey. Named after Prof. Hermann Tersch (1880-) of Vienna. [M.A. 12-353.]

Umohoite. P. F. Kerr and G. P. Brophy, 1953. Rocks & Minerals, Peekskill, N.Y., vol. 28, p. 480. Hydrous molybdate of uranium, black, flaky, hexagonal, from Utah. Named from the composition. [M.A. 12-239.]

Uranoflorescite. H. von Philipsborn, 1953. Tafeln zum Bestimmen der Minerale, Stuttgart, pp. xi, 74 (Uranoflorescit, Uranblüte). A collective name for efflorescences of secondary uranium minerals.

Väyrynenite. A. Volborth and E. Stradner, 1954. *Anz. Math.-naturwiss. Kl. Österreich. Akad. Wiss., Wien*, vol. 92, p. 21. A. Volborth, *Ann. Acad. Sci. Fennicae*, 1954, ser. A, III Geol. Geogr., no. 39, p. 66 (Väyrynenit). $\text{MnBe}(\text{PO}_4)(\text{OH}, \text{F}?)$, similar to herderite with Mn in place of Ca. Monoclinic, rose-red, in Li-pegmatite from Finland. Named after Dr. Heikki Väyrynen, professor of mineralogy and geology in the Technical Highschool, Helsinki. [M.A. 12-354, 568.]

Vladimirite. E. I. Nefedov, 1953. *Mém. Soc. Russ. Min.*, ser. 2, vol. 82, p. 317 (Владимирит). $3\text{CaO} \cdot \text{As}_2\text{O}_5 \cdot 4\text{H}_2\text{O}$, monoclinic?, colourless radiating needles. [M.A. 12-352.]

Volkovite. E. I. Nefedov, 1953. *Mém. Soc. Russ. Min.*, ser. 2, vol. 82, p. 317 (Волковит). Hydrous borate of Sr and K, monoclinic, inder salt deposits, Kazakhstan. [M.A. 12-352.]

Wairakite. A. Steiner, 1955. *Min. Mag.*, vol. 30, p. 691. D. S. Coombs, *ibid.*, p. 699. A zeolite, $\text{CaO} \cdot \text{Al}_2\text{O}_3 \cdot 4\text{SiO}_2 \cdot 2\text{H}_2\text{O}$, the calcium analogue of analcime, but optically biaxial, monoclinic (pseudo-cubic). From hot springs at Wairaki, New Zealand. Named from the locality. See Calcium-analcime.

Wilkinite. S. D. Wells, 1920. *Paper, New York*, vol. 27, no. 4, p. 19 (Wilkinite); P. F. Kerr and P. K. Hamilton, *Glossary of clay mineral names*, 1949, p. 68 (Wilkonite) [M.A. 11-169.] Trade-name for a colloidal bentonite ('jelly rock') used for loading book paper.

Woodruffite. C. Frondel, 1953. *Amer. Min.*, vol. 38, p. 761. A psilomelane-like mineral with the composition $2(\text{Zn}, \text{Mn})\text{O} \cdot 5\text{MnO}_2 \cdot 4\text{H}_2\text{O}$, from Sterling Hill, New Jersey. Named after the late Samuel Woodruff, for many years a miner with the New Jersey Zinc Company and a keen collector of minerals. [M.A. 12-237.]

Yttrianite. J. Takubo et al., 1953. *Journ. Geol. Soc. Japan*, vol. 59, p. 58. Error for yttrialite. [M.A. 12-279.]

Yugawaralite. K. Sakurai and A. Hayashi, 1952. [*Sci. Rep. Yokohama Nat. Univ.*, sect. 2, no. 1, p. 60]; abstract in *Amer. Min.*, 1953, vol. 38, p. 426. A monoclinic zeolite, ' $\text{Ca}_4\text{Al}_7\text{Si}_{20}\text{O}_{54} \cdot 14\text{H}_2\text{O}$ ', in altered andesite tuffs near the Yugawara hot spring, Kanagawa, Japan. Named from the locality. [M.A. 12-133.]

Zinc-högbomite. V. A. Moleva and V. S. Myasnikov, 1952. *Doklady Acad. Sci. USSR*, vol. 83, p. 733 (цинк-хёгбомит). Variety of högbomite containing ZnO 11-12%. [M.A. 12-13.]

Zinc-rockbridgeite. M. L. Lindberg and C. Frondel, 1950. *Amer. Min.*, vol. 35, p. 1028 (Zincian rockbridgeite). H. Strunz, *Neues Jahrb.*

Min., Abh., 1952, vol. 84, p. 89 (Zinkrockbridegit). A zinciferous variety of rockbridegit (ZnO 5·20 %), from Portugal and Bavaria. [M.A. 11-187.]

Zirkoneuxenite. F. Machatschki, 1953. Spezielle Mineralogie, Wien, p. 319 (Zirkoneuxenit = Polymigmat, q.v.). Synonym of polymigmat.

Zonotlite. E. S. Larsen and H. Berman, 1934. Bull. U.S. Geol. Surv., no. 848 (2nd edit.), pp. 108, 266. Error for xonotlite, from Tetela de Xonotla (= Tetela del Oro), Puebla, Mexico.

SYSTEMATIC CLASSIFICATION OF NEW MINERALS¹

SUFPHALTS	NITRATE
Arsenosulvanite, $\text{Cu}_3(\text{As},\text{V})\text{S}_4$, VII.	Likasite, $\text{Cu}_{12}(\text{NO}_3)_4(\text{PO}_4)_2(\text{OH})_{14}$, III.
Pavonite, AgBi_3S_5 , II.	
OXIDES	BORATES
Murdochite, Cu_6PbO_8 , VII.	Suanite, $\text{Mg}_2\text{B}_2\text{O}_5$, II.
	Kurgantaite, $(\text{Sr},\text{Ca})_2\text{B}_2\text{O}_8\cdot\text{H}_2\text{O}$.
	Tertschite, $\text{Ca}_4\text{B}_{10}\text{O}_{19}\cdot 20\text{H}_2\text{O}$, II ?
HYDROXIDES	Ivanovite, hyd. chloro-borate $\text{Ca}(\text{K}?)$,
Navajoite, $\text{V}_2\text{O}_5\cdot 3\text{H}_2\text{O}$, II?	II.
Woodruffite, $2(\text{Zn},\text{Mn})\text{O}\cdot 5\text{nO}_2\cdot 4\text{H}_2\text{O}$.	Volkovite, hyd. Sr,K, II.
CARBONATES	SULPHATES
Huntite, $\text{Mg}_3\text{Ca}(\text{CO}_3)_4$, III.	Goldichite, $\text{KFe}(\text{SO}_4)_2\cdot 4\text{H}_2\text{O}$, II.
Eitelite, $\text{Na}_2\text{Mg}(\text{CO}_3)_2$, VI.	Görgeyite, $\text{K}_2\text{Ca}_5(\text{SO}_4)_6\cdot\text{H}_2\text{O}$, II.
Callaghanite,	Mikheevite, $\text{K}_2\text{Ca}_4(\text{SO}_4)_5\cdot\text{H}_2\text{O}$, I.
$\text{Cu}_4\text{Mg}_4\text{Ca}(\text{OH})_{14}(\text{CO}_3)_2\cdot 2\text{H}_2\text{O}$, II.	Nickel-epsomite, $(\text{Mg},\text{Ni})\text{SO}_4\cdot 7\text{H}_2\text{O}$, III.
Burbankite, $(\text{Ca},\text{Sr},\text{Ba},\text{Ce},\text{Na})_6(\text{CO}_3)_5$,	Peligotite, $\text{Cu}(\text{UO}_2)_2(\text{SO}_4)_2\cdot 3\text{H}_2\text{O}\cdot\text{aq}$.
VI.	Hidalgoite, $\text{PbAl}_3(\text{SO}_4)(\text{AsO}_4)(\text{OH})_6$,
Calkinsite, $(\text{La},\text{Ce},\&\text{c.})_2(\text{CO}_3)_2\cdot 4\text{H}_2\text{O}$,	VI.
III.	
Sahamalite, $(\text{Mg},\text{Fe})(\text{Ce},\&\text{c.})_2(\text{CO}_3)_4$, II.	MOLYBDATE
Röntgenite, $3\text{CeFeCO}_3\cdot 2\text{CaCO}_3$, V.	Umohoite, hyd. U, VI.
Rabbittite, $\text{Ca}_3\text{Mg}_2(\text{UO}_2)_2(\text{CO}_3)_6(\text{OH})_4$,	
II.	

¹ Only selected names given in the preceding alphabetical list are here included. Following A. E. H. Tutton (Crystallography, 1911, 1922) the crystal systems are indicated as: I triclinic, II monoclinic, III orthorhombic, IV tetragonal, V trigonal, VI hexagonal, VII cubic.

PHOSPHATES, ETC.

- Avelinoite, $\text{NaFe}^{\text{III}}(\text{PO}_4)_2(\text{OH})_4 \cdot 2\text{H}_2\text{O}$, IV.
 Barbosalite, $\text{Fe}^{\text{II}}\text{Fe}^{\text{III}}(\text{PO}_4)_2(\text{OH})_2$.
 Lipscombite, $\text{Fe}^{\text{II}}\text{Fe}^{\text{III}}(\text{PO}_4)_2(\text{OH})_2$, IV.
 Belovite, $(\text{Sr}, \text{Ce})_{10}(\text{PO}_4)_6(\text{O}, \text{OH})_2$, VI.
 Bøggildite, $\text{Na}_2\text{Sr}_4\text{A}_2(\text{PO}_4)\text{F}_8$, II?
 Cheralite, $(\text{Ce}, \text{Th}, \text{U})(\text{P}, \text{Si})\text{O}_4$, II.
 Cyrilovite, $4\text{Fe}_2\text{O}_3 \cdot 3\text{P}_2\text{O}_5 \cdot 5\frac{1}{2}\text{H}_2\text{O}$, IV.
 Faheyite,
 $(\text{Mn}, \text{Mg}, \text{Na})\text{Be}_2\text{Fe}_2^{\text{III}}(\text{PO}_4)_4 \cdot 6\text{H}_2\text{O}$, VI.
 Faustite, $(\text{Zn}, \text{Cu})\text{Al}_6(\text{PO}_4)_4(\text{OH})_8 \cdot 5\text{H}_2\text{O}$, I.
 Hagedorffite, $(\text{Na}, \text{Ca})(\text{Fe}, \text{Mn})_2(\text{PO}_4)_2$, I?
 Isokite, CaMgPO_4F , II.
 Kahlerite, $\text{Fe}(\text{UO}_2)\text{AsO}_4 \cdot 8\text{H}_2\text{O}$, II.
 Laueite, $\text{MnFe}_2^{\text{III}}(\text{PO}_4)_2(\text{OH})_2 \cdot 8\text{H}_2\text{O}$, I.
 Moraesite, $\text{Be}_2\text{PO}_4(\text{OH}) \cdot 4\text{H}_2\text{O}$, II.
 Ordoñezite, ZnSb_2O_6 , IV.
 Palermoite, $(\text{Li}, \text{Na})_4\text{SrAl}_6(\text{PO}_4)_8(\text{OH})_8$, III.
 Parasymphesite, $\text{Fe}_3(\text{AsO}_4)_2 \cdot 8\text{H}_2\text{O}$, II.
 Shubnikovite, hyd. chloro-arsenate
 $\text{Cu}, \text{Ca}, \text{K}$, III?
 Tavorite, $\text{LiFe}(\text{PO}_4)(\text{OH})$.
 Väyrynenite, $\text{MnBe}(\text{PO}_4)(\text{OH}, \text{F}?)$, II.
 Vladimirite, $\text{Ca}_3(\text{AsO}_4)_2 \cdot 4\text{H}_2\text{O}$, II?

SILICATES

- Beryllite, $\text{Be}_3\text{SiO}_4(\text{OH})_2 \cdot \text{H}_2\text{O}$.
 Coffinite, $\text{U}(\text{SiO}_4)_{1-x}(\text{OH})_{4x}$, IV.
 Ghassoulite, $\text{Mg}_3\text{Si}_4\text{O}_{16}(\text{OH})_2$.
 Grovesite, $(\text{Mn}, \text{Mg}, \text{Al})_3(\text{Si}, \text{Al})_2(\text{O}, \text{OH})_8$, II?
 Hexacelsian, $\text{BaAl}_2\text{Si}_2\text{O}_8$, VI (artif.).
 Indialite, $\text{Mg}_2\text{Al}_4\text{Si}_5\text{O}_{18}$, VI.
 Reedmergerite, NaBSi_3O_8 , I.
 Wairakite, $\text{CaAl}_2\text{Si}_4\text{O}_{12} \cdot 2\text{H}_2\text{O}$, II.
 Yugawaralite, $\text{Ca}_4\text{Al}_7\text{Si}_{20}\text{O}_{54} \cdot 14\text{H}_2\text{O}?$, II.

TITANATES, NIOBATES, ETC.

- Alvarolite, MnTa_2O_6 , II.
 Irinite, $(\text{Na}, \text{Ce}, \text{Th})(\text{Ti}, \text{Nb})(\text{O}, \text{OH})_3$, VII.
 Nenadkevichite,
 $(\text{Na}, \text{Ca})(\text{Nb}, \text{Ti})\text{Si}_2\text{O}_7 \cdot 2\text{H}_2\text{O}$, III
 Shcherbakovite,
 $\text{Na}(\text{K}, \text{Ba})_2(\text{Ti}, \text{Nb})_2(\text{Si}_2\text{O}_7)_2$, II.

HYDROCARBONS

- Evenkite, $\text{C}_{12}\text{H}_{42}$.
 Mirzaanite, var. of elaterite.
 Stepanovite, $\text{NaMgFe}^{\text{III}}(\text{C}_2\text{O}_4)_3 \cdot 8\text{H}_2\text{O}$.