# *Fifteenth list of new mineral names; with an index of authors.*[1]

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[Communicated June 6, 1940.]

**Abukumalite.** S. Hata, 1938. Sci. Papers Inst. Phys. Chem. Research, Tokyo, 1938, vol. 34, p. 1018. Phospho-orthosilicate of yttrium and calcium, $CaYt_2(Si,P)_2O_8$, hexagonal and isomorphous with britholite. Named from the locality, Abukuma range, Fukushima, Japan. F. Machatschki (Zentr. Min., Abt. A, 1939, p. 161) regards it as a yttrium silicate apatite. [M.A. 7–225, 395.]

**Adigeite.** N. E. Efremov, 1939. Compt. Rend. (Doklady) Acad. Sci. URSS, vol. 22, p. 433 (Adigeite). A mineral of the serpentine group with the composition $5MgO.3SiO_2.3\frac{1}{2}$–$4H_2O$, from Mt. Tkhach, northern Caucasus. This is perhaps the 'new variety of serpentine' described, without name, by the same author in Bull. Acad. Sci. URSS, Sér. Géol., 1938, p. 107. [M.A. 7–221, 370.]

**Alkali-apatite.** D. McConnell, 1938. Amer. Min., vol. 23, pp. 10, 17 (alkali-apatites). To include the apatite-like minerals dehrnite and lewistonite (12th List). [M.A. 7–88.]

**Alumo-berezovite, Alumo-chrompicotite.** S. A. Vakhromeev *et alii*, 1936. Trans. All-Union Sci. Research Inst. Econ. Min. USSR, no. 85, p. 225 (алюмо-березовит, алюмо-хромпикотит). Members of the spinel group with the composition $(Fe,Mg)O.(Cr,Al)_2O_3$ (alumo-berezovite) and $(Mg,Fe)O.(Cr,Al)_2O_3$ (alumo-chrompicotite). *See* Berezovskite. [M.A. 7–151.]

**Alumodeweylite.** N. E. Efremov, 1939. Compt. Rend. (Doklady) Acad. Sci. URSS, vol. 24, p. 287 (alumodeveillites). Hydrated silicates

[1] Previous lists of this series have been given every three years at the ends of vols. 11–24 (1897–1937) 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. 7–225].

of aluminium and magnesium intermediate in composition between montmorillonite and sepiolite, or mixtures of these. [M.A. 7–419.]

**Aminoffite.** C. S. Hurlbut, 1937. Geol. För. Förh. Stockholm, vol. 59, p. 290 (Aminoffite). Hydrous silicate of calcium, beryllium, and aluminium, $Ca_8Be_3AlSi_8O_{28}(OH).4H_2O$, as colourless tetragonal crystals, related to meliphane, from Sweden. Named after Dr. Gregori Aminoff (1883–) of Stockholm. [M.A. 7–119.]

**Anchi-zeolite.** W. E. Richmond, 1937. Amer. Min., vol. 22, p. 291 (anchi-zeolite). A term to include such minerals as prehnite, datolite, babingtonite, &c., formed during a late hydrothermal phase of igneous activity, before the zeolite phase. Named from ἄγχι, near, and zeolite. [M.A. 7–118.]

**Antofagastite.** C. Palache and W. F. Foshag, 1938. Amer. Min., vol. 23, p. 85; M. C. Bandy, ibid., p. 705. Hydrated copper chloride, $CuCl_2.2H_2O$, as bluish-green orthorhombic crystals from province Antofagasta, Chile. Named from the locality. [M.A. 7–59, 223.]

**Armenite.** H. Neumann, 1939. Norsk Geol. Tidsskrift, vol. 19, p. 312 (Armenite). Hydrated alumino-silicate of calcium and barium, $BaCa_2Al_6Si_8O_{28}.2H_2O$, as colourless pseudo-hexagonal (orthorhombic?) crystals from Armen mine, Kongsberg, Norway. Named from the locality. [M.A. 7–468.]

**Arsen-rösslerite.** O. M. Friedrich and J. Robitsch, 1939. Zentr. Min., Abt. A, 1939, p. 143 (Arsen-Rößlerit). Synonym of rösslerite ($MgHAsO_4.7H_2O$), which is used as a group name to include also phosphor-rösslerite (q.v.). [M.A. 7–317.]

**Asbophite.** N. D. Sobolev, 1930. [Min. Syre, Moscow, vol. 5, no. 9, p. 1181.] V. N. Lodochnikov, Trans. Centr. Geol. Prosp. Inst. USSR, 1936, no. 38, pp. 34, 517, 604 (асбофит), p. 729 (Asbophite). O. M. Shubnikova, Trans. Lomonosov Inst. Acad. Sci. USSR, Ser. Min., 1937, no. 10, p. 195. A variety of chrysotile-asbestos, $42H_4(Mg,Fe)Mg_2Si_2O_9 + (Al,Fe)_2O_3 + 8SiO_2$; sp. gr. 2·5847, $\alpha$ 1·557, $\gamma$ 1·569. A contraction of asbestos+ophite.

**Askanite.** D. S. Belyankin, 1934. Trav. Inst. Pétrogr. Acad. Sci. URSS, no. 6, p. 110 (Асканит), p. 114 (askanite). O. M. Shubnikova, Trans. Lomonosov Inst. Acad. Sci. USSR, 1937, no. 10, p. 201 (Асканит, Ascanite). D. S. Belyankin and V. P. Ivanova, Compt. Rend. (Doklady)

Acad. Sci. URSS, 1938, vol. 18, p. 279 (Askanite). A montmorillonite-like clay occurring as a decomposition product of volcanic ash. Named from the locality, Askana (Аскана), Ozurgety district, Georgia, Transcaucasia. [M.A. 7–426.]

**Ayasite.** J. D. Buddhue, 1939. Popular Astronomy, Northfield, Minnesota, vol. 47, p. 97. The names rustite and ayasite are suggested for the rust or iron-shale formed by the oxidation of meteoritic irons. Named from the Sanskrit *ayas*, iron. [M.A. 7–266.]

**Azovskite.** N. E. Efremov, 1937. Trans. Lomonosov Inst. Acad. Sci. USSR, no. 10, p. 151 (Азовскит), p. 154 (Asovskite), p. 155 (azovskite). Hydrated ferric phosphate, $FePO_4.2Fe(OH)_3.3H_2O$, as dark brown masses with pitchy lustre in the iron ore on the Taman shore of the Sea of Azov (Азовское Море). Named from the locality. [M.A. 7–59.]

**Bandylite.** C. Palache and W. F. Foshag, 1938. Amer. Min., vol. 23, p. 87; M. C. Bandy, ibid., p. 704. Hydrated borate-chloride of copper, $CuB_2O_4.CuCl_2.4H_2O$, as dark blue tetragonal crystals from Chile. Named after Mark Chance Bandy, mining engineer, who collected the mineral. [M.A. 7–59, 223.]

**Barium-albite.** T. Yosimura, 1939. Journ. Fac. Sci. Hokkaido Univ., Ser. 4, vol. 4, p. 385 (Bariumalbite). A soda-potash-felspar containing $BaAl_2Si_2O_8$ 14 %. [M.A. 7–413.]

**Bedenite.** N. E. Efremov, 1935. [Min. Syre, Moscow, 1935, no. 9, p. 15]; Mém. Soc. Russe Min., 1937, ser. 2, vol. 66, p. 479 (Беденит), p. 485 (Bedenite). O. M. Shubnikova, Trans. Lomonosov Inst. Acad. Sci. USSR, 1937, no. 10, p. 183. An asbestiform mineral of the anthophyllite group, $H_2Ca_2Mg_4AlFe'''Si_8O_{26}$, from Beden Mtn., northern Caucasus. Named from the locality. [M.A. 7–170.]

**Berezovskite.** E. S. Simpson, 1932. A key to mineral groups, species and varieties, London, p. 8 (Beresofskite). To replace the earlier name, beresofite (E. S. Simpson, Min. Mag., 1920, vol. 19, pp. 101–105), for a magnesium variety of chromite. Beresofite of C. U. Shepard (1844) is an obsolete synonym of crocoite, $PbCrO_4$. Beresovite (Beresowit) of J. (= Y. V.) Samoilov (1897; 2nd List) is $2PbO.3PbCrO_4.PbCO_3$. Beresite of G. Rose (1837) is a microgranite (quartz-aplite). All are named from the locality, Berezovsk (Березовск), a mining village 13 km. NE. of Ekaterinburg (now Sverdlovsk), Urals. *See* Alumo-berezovite.

**Bidalotite.** B. Rama Rao and L. Rama Rao, 1937. Proc. Indian Acad. Sci., Sect. B, vol. 5, p. 290. An orthorhombic pyroxene differing from hypersthene in containing $Al_2O_3$ (5–10 %) and in its optical characters. Named from the locality, Bidaloti, Mysore. [M.A. 7–11.]

**Bolidenite.** P. Ramdohr and O. Ödman, Neues Jahrb. Min., Abt. A, 1940, Beil.-Bd. 75, p. 317 (Bolidenit). Local name for falkmanite (q.v.), and also other ores, at the Boliden mines, north Sweden.

**Brunckite.** R. Herzenberg, 1938. Zentr. Min., Abt. A, 1938, p. 373. Zinc sulphide as white amorphous (gel) material from Peru. Named after Bergrat Otto Brunck (1866–), of Freiberg, Saxony. [M.A. 7–264.]

**Buldymite.** A. S. Amelandov and K. N. Ozerov, 1934. [Min. Syre, Moscow, 1934, no. 2, p. 24.] O. M. Shubnikova, Trans. Lomonosov Inst. Acad. Sci. USSR, 1936, no. 7, p. 320 (Булдымит, Buldymite). A variety of vermiculite, $K_2O.7MgO.2FeO.3(Al,Fe)_2O_3.9SiO_2.6H_2O$. A brown scaly mineral intermediate between biotite and vermiculite; swells up on heating. From corundum-plagioclase veins at Buldymsk, Sverdlovsk district, Ural. Named from the locality.

**Caesium-spodumene.** P. Quensel, 1939. Geol. För. Förh. Stockholm, vol. 60 (for 1938), p. 625 (caesium spodumene), p. 626 (caesium-spodumene). *See* Diaspodumene. [M.A. 7–335.]

**Calcio-gadolinite.** T. Nakai, 1938. Bull. Chem. Soc. Japan, vol. 13, p. 591. A variety of gadolinite with rare-earths partly replaced by calcium (CaO 11·91 %); from Japan. [M.A. 7–264.]

**Calc-pyralmandite.** L. L. Fermor, 1938. Rec. Geol. Surv. India, vol. 73, pp. 154, 156; Indian Assoc. Cultiv. Sci., 1938, Spec. Publ. no. 6, p. 18. *See* Gralmandite.

**Carbonyl.** G. Vavrinecz, 1939. Földtani Közlöny, Budapest, vol. 69, pp. 82, 98 (Carbonyl). Carbon monoxide, CO, as a natural gas. [M.A. 7–471.]

**Čermíkite.** B. Ježek, Mineralogie, Praha, 1932, (Nat. Hist., vol. 6), p. 1260 (Čermíkit); R. Rost, Bull. Internat. Acad. Sci. Bohême, 1937, vol. —, preprint p. 2 (Čermíkite). The Czech spelling of tschermigite (F. Kobell, 1853), from the locality, Čermíky = Tschermig, Bohemia. [M.A. 7–11.]

**Chacaltaite.** M. Kołaczkowska, 1936. Spraw. Tow. Nauk. Warsaw. (Compt. Rend. Soc. Sci. Varsovie), Cl. II, vol. 29, p. 71 (Czakaltait),

p. 72 (Chacaltaïte). A green chlorite-like mineral previously described as pinite [M.A. 6–473], from which it differs in its X-ray pattern. Named from the locality, Chacaltaya, Bolivia. [M.A. 7–226.]

**Cherskite.** B. A. Gavrusevich, 1935. Trans. Lomonosov Inst. Acad. Sci. USSR, Ser. Min., no. 5, p. 100 (черскит); O. M. Shubnikova, ibid., 1937, no. 10, p. 223 (Черскит, Cherskite). An undescribed manganese mineral with phlogopite, diopside, &c., from Slyudyanka, Transbaikalia.

**Chinglusuite.** V. I. Gerasimovsky, 1938. Bull. Acad. Sci. URSS, Cl. Sci. Math. Nat., Sér. Géol., 1938, p. 153 (Чинглусуит), p. 156 (Tchinglusuite). Hydrated titano-silicate of manganese, sodium, &c., $2(Na,K)_2O.5(Mn,Ca)O.3(Ti,Zr)O_2.14SiO_2.9H_2O$, as black amorphous (metamict) grains. Named from the locality, Chinglusuai (Чинглусуай) river, Kola peninsula, Russia. [M.A. 7–222.]

**Chkalovite.** V. I. Gerasimovsky, 1939. Compt. Rend. (Doklady) Acad. Sci. URSS., vol. 22, p. 259 (chkalovite). Sodium and beryllium silicate, $Na_2Be(SiO_3)_2$, orthorhombic, from the Kola peninsula, Russia. Named after the polar aviator, Valery Pavlovich Chkalov. [M.A. 7–314.]

**Chrome-acmite.** A. Holmes, 1937. Trans. Geol. Soc. South Africa, vol. 39 (for 1936), p. 405. Suggested as a constituent molecule $NaCrSi_2O_6$ in chrome-diopside (containing $Cr_2O_3$ 2·03, $Na_2O$ 1·37 %) from the kimberlite at Jagersfontein, Orange Free State. [M.A. 7–188.]

**Chrome-kyanite.** K. N. Ozerov and N. A. Bykhover, 1936. Trans. Centr. Geol. Prosp. Inst. USSR, no. 82, p. 72 (хром-кианит), p. 100 (chrome cyanite). A green variety of kyanite containing chromium ($Cr_2O_3$ 1·81 %) from Yakutia, Siberia. [M.A. 7–49.]

**Clinoscorodite.** H. Strunz and K. Sztrókay, 1939. Zentr. Min., Abt. A, 1939, p. 277 (Klinoskorodit). A supposed monoclinic form dimorphous with orthorhombic scorodite. [M.A. 7–509.]

**Copper-zinc-epsomite.** C. Milton and W. D. Johnston, 1937. Amer. Min., vol. 22, no. 12, pt. 2, p. 10; 1938, vol. 23, p. 175.

**Cupro-asbolane.** L. De Leenheer, 1938. Ann. Service Mines, Katanga, vol. 8 (for 1937), p. 35 (cupro-asbolane). A cobaltiferous wad (asbolane) containing also copper, from Katanga, Belgian Congo. [M.A. 7–419.]

**Cuproauride.** M. P. Lozhechkin, 1939. Compt. Rend. (Doklady) Acad. Sci. URSS, vol. 24, p. 454 (cuproauride). The 'gold cupride' of

Karabash, Ural, is a mixture of $Cu_3Au_2$ (63 %) and $AgAu_4$. The former, as a new mineral, is called cuproauride. [M.A. 7–515.]

**Cuproboulangerite.** S. S. Smirnov, 1933. Trans. United Geol. Prospecting Service USSR, no. 327, pp. 140, 284, 338 (купро-буланжерит). O. M. Shubnikova, Trans. Lomonosov Inst. Acad. Sci. USSR, 1937, no. 10, p. 175 (Купробуланжерит, Cuproboulangerite). A cupriferous variety of boulangerite from Transbaikalia.

**Cuprocopiapite.** M. C. Bandy, 1938. Amer. Min., vol. 23, p. 738; L. G. Berry, ibid., 1939, vol. 24, p. 182. A variety of copiapite containing 6 % CuO, from Chile. [M.A. 7–223.]

**Cuprojarošite.** J. Kokta, 1937. Sborník Klubu Přírodovědeckého v Brně, vol. 19 (for 1936), p. 76 (Kuprojarošit). A variety of melanterite containing copper (CuO 4·40 %) and magnesium (MgO 4·29 %). *See* Jarošite. [M.A. 7–316.]

**Cuprokirovite.** G. N. Vertushkov, 1939. Bull. Acad. Sci. URSS, Sér. Géol., 1939, no. 1, p. 109 (купрокировит), p. 114 (cuprokirovite). A variety of melanterite containing MgO 3·36 % and CuO 3·18 %, $(Fe,Mg,Cu)SO_4.7H_2O$, resulting from underground fires in the Kalata mine, Kirovgrad, Ural. Named after Mr. S. M. Kirov (С. М. Киров). *See* Kirovite. [M.A. 7–418.]

**Cuprorivaite.** C. Minguzzi, 1938. Periodico Min. Roma, vol. 9, p. 333 (cuprorivaite); Atti X Congr. Internaz. Chim. Roma, 1938, vol. 2, p. 725; Chimica e Industria, Milano, 1938, vol. 20, p. 278. Hydrous silicate of copper, calcium, aluminium, and sodium, as small blue grains from Vesuvius. Named from a supposed relation to rivaite (6th List). [M.A. 7–225, 470.]

**Czakaltait.** Polish form of Chacaltaite (q.v.).

**Devadite.** L. L. Fermor, 1938. Proc. Nat. Inst. Sci. India, vol. 4, p. 275. A hypothetical mineral, $5Mn_3O_4.5Mn_2O_3.8Fe_2O_3$, which on breaking down gave rise to a mineral with the vredenburgite structure, but containing more iron than the vredenburgite originally described. Named from the locality, Devada, Vizagapatam, Madras. *See* Garividite. [M.A. 7–169.]

**Diaspodumene.** P. Quensel, 1939. Geol. För. Förh. Stockholm, vol. 60 (for 1938), p. 626 (diaspodumene, caesium diaspodumene, caesium-diaspodumene). A symplektic intergrowth of normal spodumene and a hypothetical caesium-spodumene. [M.A. 7–335.]

**Eisenpickeringit.** H. Meixner and W. Pillewizer, 1937. Zentr. Min., Abt. A, 1937, p. 266 (Eisenpickingerit [*sic*]). Pickeringite containing some iron replacing magnesium. Synonym of Ferropickeringite (q.v.). *See* Mangan-pickeringite. [M.A. 7–12.]

**Ellestadite.** D. McConnell, 1937. Amer. Min., vol. 22, p. 977. An end-member of the apatite group resembling wilkeite in which $P_2O_5$ is replaced by $SO_3$ (20·69) and $SiO_2$ (17·31 %). From Crestmore, California. Named after Dr. R. B. Ellestad, of the University of Minnesota. [M.A. 7–14, 88, 475.]

**Endothermite.** D. S. Belyankin, 1938. *See* Monothermite.

**Ernite.** — Franck, 1911. [Rev. Asoc. Rural Uruguay, Montevideo, 1911, p. 88 (Ernita).] H. Himmel, Zentr. Min., Abt. A, 1938, p. 243 (Ernita). A supposed new mineral from Uruguay, later identified with grossular. Named after the author's wife. [M.A. 7–317.]

**Falkmanite.** P. Ramdohr and O. Ödman, 1940. Neues Jahrb. Min., Abt. A., Beil.-Bd. 75, p. 315 (Falkmanit). J. E. Hiller, Zeits. Krist., 1939, vol. 102, p. 138. Sulphantimonite of lead, $3PbS.Sb_2S_3$, as acicular monoclinic crystals. Named after Oscar Carl August Falkman (1877–), director of the Boliden mines in north Sweden, one of the localities where the mineral was found. It had previously been known locally as bolidenite. [M.A. 7–468, 513.]

**Ferantigorite.** E. S. Simpson, 1937. Journ. Roy. Soc. W. Australia, vol. 23, p. 22. A contraction of ferro-antigorite (11th List).

**Ferribiotite.** H. Meixner, 1939. Fortschr. Min. Krist. Petr., vol. 23, p. xliv (Ferribiotite, *pl.*). F. Angel and A. Marchet, ibid., p. xxxviii (Ferri-Biotite, *pl.*). Biotite rich in ferric iron.

**Ferricopiapite.** L. G. Berry, 1938. Amer. Min., vol. 23, no. 12, pt. 2, p. 3; 1939, vol. 24, p. 182. A variety of copiapite in which X in the formula $X(OH)_2.Fe'''_4(SO_4)_6.nH_2O$ is mainly ferric iron. Similarly, ferrocopiapite and magnesiocopiapite when X is mainly ferrous iron or magnesium.

**Ferrigarnierite.** E. F. Alekseeva and M. N. Godlevsky, 1937. Mém. Soc. Russe Min., ser. 2, vol. 66, p. 99 (ферригарниерит). Garnierite containing 5·34 % $Fe_2O_3$, from Novo-Cheremshansky, Ural. [M.A. 7–214.]

**Ferrigedrite.** D. P. Serdyuchenko, 1936. Bull. Acad. Sci. URSS, Cl. Sci. Math. Nat., Sér. Géol., 1936, p. 693 (ферригедрит), p. 696

(ferrihedrite [*sic*]). An orthorhombic amphibole analogous to gedrite, with $Fe_2O_3$ in place of $Al_2O_3$. [M.A. 7–10.]

**Ferriglaucophane.** M. B. Ramachandra Rao, 1939. Rec. Mysore Geol. Dept., vol. 37, p. 68 (ferriglaucophane), p. 77 (ferri glaucophane). Intermediate in composition between glaucophane and riebeckite. [M.A. 7–470.]

**Ferripyroaurite.** H. Meixner, 1937. *See* Ferropyroaurite.

**Ferriwotanite.** H. Meixner, 1939. Fortschr. Min. Krist. Petr., vol. 23, p. xliv (Ferriwotanite = Fertititanbiotite, *pl.*). F. Angel and A. Marchet, ibid., p. xxxvii (Ferri-Wotanit). Biotite rich in ferric iron and titanium. (Cf. wodanite, 9th List; wotanite, 14th List.)

**Ferrocopiapite.** L. G. Berry, 1938. *See* Ferricopiapite.

**Ferroepsomite.** G. N. Vertushkov, 1939. Bull. Acad. Sci. URSS, Sér. Géol., 1939, no. 1, p. 110 (ферроэпсомит), p. 115 (ferroepsomite). A variety of epsomite containing up to 30 % of the tauriscite [orthorhombic $FeSO_4.7H_2O$] molecule. [M.A. 7–418.]

**Ferrogedrite.** C. E. Tilley, 1939. Geol. Mag. London, vol. 76, p. 329. An aluminous orthorhombic amphibole (gedrite) rich in ferrous iron. Compare ferroanthophyllite (9th List).

**Ferrohortonolite.** W. A. Deer and L. R. Wager, 1939. Amer. Min., vol. 24, p. 25. Members of the olivine group containing 70–90 mol. % of $Fe_2SiO_4$. [M.A. 7–447.]

**Ferrohumite.** N. K. Skakovsky, 1929. [Min. Syre, Moscow, no. 8, p. 913.] O. M. Shubnikova, Trans. Lomonosov Inst. Acad. Sci. USSR, 1937, no. 10, p. 138 (Ферроғумит, Ferrohumite). Humite containing FeO 44·47 % from Sadon mine, northern Caucasus. This mineral was later referred to knebelite by L. A. Vardanyantz, 1934 [M.A. 6–426].

**Ferromontmorillonite.** I. I. Ginzburg, 1939. Bull. Acad. Sci. URSS, Sér. Géol., 1939, no. 1, p. 85 (ферромонтмориллонит), p. 96 (ferromontmorillonite). Synonym of nontronite.

**Ferropickeringite.** G. N. Vertushkov, 1939. Bull. Acad. Sci. URSS, Sér. Géol., 1939, no. 1, p. 110 (ферропиккерингит), p. 114 (ferropickeringite). A variety of pickeringite containing up to 30 % of the halotrichite molecule. Synonym of Eisenpickeringit (q.v.). [M.A. 7–418.]

**Ferroplumbite.** Chem. Abstr. (Amer. Chem. Soc.), 1925, vol. 19, p. 2621. Error for Plumboferrite (L. J. Igleström, 1881; A. Aminoff, 1925 [M.A. 4–89]).

**Ferropyroaurite, ferripyroaurite.** H. Meixner, 1937. Zentr. Min., Abt. A, 1937, p. 370 (Ferropyroaurit, Ferripyroaurit). The white 'Eisenbrucite' of F. Sandberger, 1880, from Siebenlehn, Saxony, belongs to the hydrotalcite group and is called ferropyroaurite, $MgCO_3.2Fe(OH)_2.5Mg(OH)_2.4H_2O$. On oxidation this passes to gold-yellow or brown ferripyroaurite, $MgCO_3.2Fe(OH)_3.5Mg(OH)_2.4H_2O$. [M.A. 7–218.]

**Ferrostilpnomelane.** C. O. Hutton, 1938, Min. Mag., vol. 25, pp. 172, 177. To replace the name stilpnomelane for hydrated silicate of ferrous iron, &c.; the latter name being transferred to the corresponding ferric compound. [The name stilpnomelane was, however, originally applied to the dark-green ferrous silicate, which on oxidation passes to the brown ferric silicate, chalcodite.]

**Ferrotine.** P. Sasima in O. M. Shubnikova, Trans. Lomonsov Inst. Acad. Sci. USSR, Ser. Min., 1937, no. 10, p. 223 (Ферротин, Ferrotine). An undetermined iron oxide, $Fe_nO_{n+1}$ (FeO 61·30, $Fe_2O_3$ 33·20 %), as dark-grey, strongly magnetic scales and spherules from the Ayata river, tributary of the Yenesei, Siberia.

**Fluor-tremolite.** D. P. Grigoriev, 1939. Compt. Rend. (Doklady) Acad. Sci. URSS, vol. 23, p. 71 (fluore-tremolite). Artificially produced tremolite containing fluorine (9·03 %) in place of hydroxyl. [M.A. 7–477.]

**Foshallassite.** P. N. Chirvinsky, 1936. V. I. Vernadsky jubilee volume, Acad. Sci. USSR, 1936, vol. 2, p. 757 (Фошалласит), p. 763 (Foschallasit); A. E. Fersman and E. M. Bonshtedt, Minerals of the Khibina and Lovozero tundras, 1937, p. 90 (foshallasite). Hydrated calcium silicate, $3CaO.2SiO_2.3H_2O$, from the Kola peninsula, Russia. Related to foshagite and centrallassite and named from a combination of these names. [M.A. 7–10.]

**Garividite.** L. L. Fermor, 1938. Proc. Nat. Inst. Sci. India, vol. 4, p. 277. A hypothetical mineral, $3Mn_3O_4.2Fe_2O_3$, which on breaking down gave rise to vredenburgite (5th List; a lamellar intergrowth of hausmannite and jacobsite with excess $MnO_2$). Named from the locality, Garividi, Vizagapatam, Madras. *See* Devadite. [M.A. 7–169.]

**Gedroitzite.** I. N. Antipov-Karataiev and I. D. Sedletzky, 1937. Compt. Rend. (Doklady) Acad. Sci. URSS, n. ser., vol. 17, p. 251 (gedroitsite). I. D. Sedletzky, ibid., 1939, vol. 23, p. 565 (gedroizite); 1940, vol. 26, p. 241 (gedroitzite). An artificial hydrous alumino-silicate of sodium, $Na_2O.Al_2O_3.3SiO_2.2H_2O$, related to permutite, later identified as a constituent of alkali soil from Ukraine. Named after Konstantin Kaetonovich Gedroitz (Константин Каетонович Гедройц) (1872–1932), professor of pedology in the Forestry Institute of Leningrad. [M.A. 7–60, 515.]

**Gelosite.** J. A. Dulhunty, 1939. Journ. Roy. Soc. New South Wales, vol. 72, p. 184. Various undetermined microscopical constituents of torbanite from New South Wales are named gelosite, retinosite, humosite, and matrosite. [M.A. 7–370.]

**Gepherite.** I. D. Sedletzky, Compt. Rend. (Doklady) Acad. Sci. URSS, 1940, vol. 26, p. 241. Gepherite = гёферит = hoeferite (1st List)!

**Giesenherrite.** D. P. Grigoriev, Mém. Soc. Russe Min., 1937, ser. 2, vol. 66, p. 264 (*гизингеерит*), p. 300 (*giesenherrite*). Mis-spelling of hisingerite (J. J. Berzelius, 1828), named after Wilhelm Hisinger (1766–1852). Quoted as an example of the many errors that arise through double transliteration.

**Goeschwitzite.** I. D. Sedletzky, 1940. Compt. Rend. (Doklady) Acad. Sci. URSS, vol. 26, p. 242 (heshvitcite!). The 'Glimmer von Goeschwitz' of E. Maegdefrau and V. Hofmann (Zeits. Krist., 1937, vol. 98, p. 33), a micaceous clay from Goeschwitz (Göschwitz), Thuringia. Named from the locality.

**Goldschmidtine.** M. A. Peacock, 1937. Amer. Min., vol. 22, no. 12, pt. 2, p. 11 (abstract); ibid., 1938, vol. 23, p. 176; 1939, vol. 24, p. 227; 1940, vol. 25, p. 372. Described as silver antimonide, $Ag_2Sb$, but later identified with stephanite ($Ag_5SbS_4$). [M.A. 7–15, 317, 516.]

**Gralmandite.** L. L. Fermor, 1938. Rec. Geol. Surv. India, vol. 73, pp. 154, 156; Indian Assoc. Cultiv. Sci., 1938, Spec. Publ. no. 6, p. 20. Garnets intermediate in composition between grossular and almandine. Varieties containing in addition less than 10 % of the pyrope and spessartine molecules are called magnesia-gralmandite and manganese-gralmandite. Compare spandite (4th List), grandite (5th List), and calc-spessartite (11th List).

**Gratonite.** C. Palache and D. J. Fisher, 1939. Amer. Min., vol. 24, p. 136; 1940, vol. 25, p. 255. Sulpharsenite of lead, $Pb_9As_4S_{15}$, as

rhombohedral crystals from Peru. Named after Louis Caryl Graton (1880–), Professor of Mining Geology at Harvard University. [M.A. 7–263, 512.]

**Grundite.** R. E. Grim and W. F. Bradley, Journ. Amer. Ceramic Soc., 1939, vol. 22, p. 157; Rep. Investig. Geol. Surv. Illinois, 1939, no. 53, p. 5. Trade-name for a non-bentonitic clay allied to illite (q.v.), from Grundy Co., Illinois. Named from the locality. [M.A. 7–423.]

***Hilgardite.*** C. S. Hurlbut and R. E. Taylor, 1937. Amer. Min., vol. 22, p. 1052. Hydrated chloro-borate of calcium, $Ca_8(B_6O_{11})_3Cl_4.4H_2O$, as colourless monoclinic-domatic crystals in the rock-salt of Louisiana. Named in memory of Prof. Eugene Waldemar Hilgard (1833–1916), who was the first to examine the salt deposits of Louisiana. *See* Parahilgardite. [M.A. 7–14, 217, 224, 355.]

**Humosite.** J. A. Dulhunty, 1939. *See* Gelosite.

**Hydroforsterite.** N. E. Efremov, 1938. Bull. Acad. Sci. URSS, Cl. Sci. Math. Nat., Sér. Géol., 1938, p. 132 (hydroforsterite); Compt. Rend. (Doklady) Acad. Sci. URSS, 1939, vol. 22, p. 432 (Hydrophorsterite!). Hydrated orthosilicate of magnesium, $Mg_2SiO_4.2H_2O$, in the form of asbestos and regarded as an end-member of the serpentine series. [M.A. 6–490, 7–221, 370.]

**Hydrogedroitzite.** I. D. Sedletzky, 1940. Compt. Rend. (Doklady) Acad. Sci. URSS, vol. 26, p. 241 (Hydrogedroitzite). A hypothetical, hydrated, metastable form of gedroitzite (q.v.). Similarly, Hydromontmorillonite, Hydronontronite, and Hydropyrophyllite, corresponding to montmorillonite, &c.

**Hydrohalloysite.** I. D. Sedletzky, 1940. Compt. Rend. (Doklady) Acad. Sci. URSS, vol. 26, p. 241 (Hydrohalloysite). 'Hydrated halloysite', $Al_2O_3.2SiO_2.4H_2O$, of S. B. Hendricks (Amer. Min. 1938, vol. 23, p. 295). [M.A. 7–422.]

**Hydrokaolin.** D. S. Belyankin and V. P. Ivanova, 1935. Zentr. Min., Abt. A, 1935, p. 298 (Hydrokaolin). Synonym of halloysite, which is considered to differ from kaolin only in its degree of hydration. [M.A. 7–103.]

**Hydromagniolite.** N. E. Efremov, 1939. Compt. Rend. (Doklady) Acad. Sci. URSS, vol. 24, p. 287 (hydromagniolites). A collective name for hydrated silicates of magnesium. [M.A. 7–419.]

**Hydrosialite.** N. E. Efremov, 1939. Compt. Rend. (Doklady) Acad. Sci. URSS, vol. 24, p. 287 (hydrosyalites). A collective name for hydrated silicates of aluminium or clay minerals. *See* Sialite. [M.A. 7–419.]

**Hydrotenorite.** L. De Leenheer, 1937. Bull. Soc. Belge Géol., vol. 47, p. 215 (hydroténorite); ibid., 1938, vol. 48, p. 343. An amorphous black mineral (pitchy copper ore) from Katanga; deducting, chrysocolla, the formula is given as $4CuO{\cdot}H_2O$. V. Billiet and A. Vandendriessche, Bull. Soc. Belge, Géol., 1938, vol. 48, p. 333, prove its identity with tenorite. [M.A. 7–10, 226.]

**Hydrothionite.** G. Vavrinecz, 1939. Földtani Közlöny, Budapest, vol. 69, pp. 82, 98 (Hydrothionit). Hydrogen sulphide, $H_2S$, as a natural gas. Named from ὕδωρ, water, and θεῖον, sulphur. [M.A. 7–471.]

**Hydroxylapatite.** P. Niggli, Lehrbuch der Mineralogie, 2nd edit., 1926, p. 393 (Hydroxylapatit); A. N. Winchell, 1927, Elements of optical mineralogy, 2nd edit., 1927, pt. 2, p. 128 (Hydroxylapatite). Variant of hydroxyapatite (6th List), $3Ca_3P_2O_8.Ca(OH)_2$.

**Illite.** R. E. Grim, R. H. Bray, and W. F. Bradley, 1937. Amer. Min., vol. 22, p. 816. A general term for a micaceous constituent of argillaceous sediments, in particles usually less than a micron across, with the approximate formula $2K_2O.3(Mg,Fe)O.8(Al,Fe)_2O_3.24SiO_2.12H_2O$. Named from the State of Illinois. (Compare pholidoide and phyllite, 14th List.) [M.A. 7–13, 422.]

**Ilmeno-corundum.** J. de Lapparent, 1937. Min. Petr. Mitt. (Tschermak), vol. 49, p. 15 (ilméno-corindon, corindon ferro-titané). Corundum in the emery of Samos, previously called taosite (14th List), but not analysed. [M.A. 7–150.]

**Inderite.** A. M. Boldyreva and E. N. Egerova, 1937. [Mat. Centr. Sci. Geol. Prosp. Inst. USSR, General Ser., no. 2.] A. M. Boldyreva, Mém. Soc. Russe Min., 1937, ser. 2, vol. 66, p. 651 (Индерит), p. 672 (Inderite); M. N. Godlevsky, ibid., pp. 327, 355. O. M. Shubnikova, Trans. Lomonosov Inst. Acad. Sci. USSR, 1937, no. 10, p. 216. G. B. Boky, Bull. Acad. Sci. URSS, Cl. Sci. Mat. Nat., Ser. Chim., 1937, p. 881 (Индерит), p. 883 (Inderite). Hydrated magnesium borate, $2MgO.3B_2O_3.15H_2O$, as nodular aggregates of acicular crystals (pseudo-orthorhombic). Named from the locality, Inder (Индер), Kazakhstan, S.W. Siberia. [M.A. 7–131–3, 476.]

**Iron-albite.** G. F. Faust, 1936. Amer. Min., vol. 21, p. 762 (Iron-albite). The compound $NaFeSi_3O_8$ with Fe''' in place of Al in albite. Similarly, Iron-anorthite and Iron-microcline. Compare Iron-orthoclase (11th List). [M.A. 7–145.]

**Iron-anorthite.** G. F. Faust, 1936. *See* Iron-albite.

**Iron-chlorite.** A. F. Hallimond, 1939. Min. Mag., vol. 25, p. 442 (iron-chlorites). Translation of Eisenchlorite (*pl.*) of J. Holzner, Neues Jahrb. Min., Abt. A, 1938, Beil.-Bd. 73, p. 389. A group name to include various chloritic minerals rich in iron. Eisenchlorit of C. F. Naumann, 1850, was applied only to delessite.

**Iron-hornblende.** T. Yosimura, 1939. Journ. Fac. Sci. Hokkaido Univ., Ser. 4, vol. 4, p. 421 (ironhornblende). A green hornblende with FeO 17·09, $Fe_2O_3$ 8·05 %.

**Iron-knebelite.** T. Yosimura, 1939. Journ. Fac. Sci. Hokkaido Univ., Ser. 4, vol. 4, p. 403 (Ironknebelite). The same as järnknebelit, Eisenknebelit (M. Weibull, 1884) and igleströmite (M. Weibull, 1883). An intermediate member ($Fe_2SiO_4$ 60–80 mol. %) of the fayalite-tephroite series, near to knebelite.

**Iron-microcline.** G. F. Faust, 1936. *See* Iron-albite.

**Iron-serpentine.** J. W. Gruner, 1936. Amer. Min., vol. 21, p. 453 (iron serpentine). The hypothetical molecule $H_4Fe_3Si_2O_9$ with Fe in place of Mg in serpentine. Compare Iron-antigorite (11th List), Ferrochrysotile (14th List). [M.A. 6–480.]

**Iron-tephroite.** T. Yosimura, 1939. Journ. Fac. Sci. Hokkaido Univ., Ser. 4, vol. 4, p. 406 (Irontephroite). An intermediate member ($Fe_2SiO_4$ 5–20 mol. %) of the fayalite-tephroite series.

**Janowaite.** C. Hintze, Handbuch Min., Ergänzungsband, 1937, p. 236 (Janowait). A more correct spelling of janite (13th List), from the Janowa valley, Poland. On p. 741 another spell[illegible]—Yanit.

**Jarošite.** J. Kokta, 1937. Sborník Klubu Přírodovědeckého v Brné, vol. 19 (for 1936), p. 75 (Jarošit). A variety of melanterite containing MgO 5·55 %, from Slovakia. Named after Zdeněk Jaroš, keeper of minerals in the museum at Brno. Pronounced Jaroschit, yarroshite. [Not to be confused with jarosite from the Jaroso ravine, Spain.] *See* Cuprojarošite and Kirovite. [M.A. 7–316.]

**Jelinite.** J. D. Buddhue, 1938. Mineralogist, Portland, Oregon, vol. 6, no. 9, p. 9 (jelinekite, preferably jelinite). To replace the name kansasite (q.v.). Named after Mr. George Jelinek, of Ellsworth, Kansas, who found the material. [M.A. 7–265.]

**Kali-magnesio-katophorite.** R. T. Prider, 1939. Min. Mag., vol. 25, p. 378. *See* Magnophorite.

**Kalisaponite.** P. N. Chirvinsky, 1939. Bull. Acad. Sci. URSS, Sér. Géol., 1939, no. 4, p. 32 (калисапонит), p. 43 (kalisaponite). A zeolitic mineral resembling saponite in appearance, containing $K_2O$ 6·57 %; formula $(R_2O,RO).Al_2O_3.5SiO_2.3H_2O$. [M.A. 7–515.]

**Kansasite.** J. D. Buddhue, 1938. Mineralogist, Portland, Oregon, vol. 6, no. 1, p. 8. A fossil resin from Kansas, afterwards named jelinite (q.v.). [M.A. 7–265.]

**Karachaite.** N. E. Efremov, 1936. Bull. Acad. Sci. URSS, Cl. Sci. Math. Nat., Sér. Géol., 1936, p. 921 (Карачаит), p. 927 (karachaite). An asbestiform variety of chrysotile-serpentine with the composition $MgO.SiO_2.H_2O$. Named from the locality, Karachai, Caucasus. [M.A. 9–9, 370.]

**Khibinite.** Chem. Abstr. (Amer. Chem. Soc.), 1935, vol. 29, p. 4702; Amer. Min., 1936, vol. 21, p. 269. Erroneously given as a mineral, rather than a rock, name. Chibinit (W. Ramsay, 1899) = Хибинит = Khibinite is a pegmatitic nepheline-syenite with eudialyte, &c., from the Khibina tundra, Kola peninsula. [M.A. 6–307, 310, 420; 7–196.]

**Khoharite.** L. L. Fermor, 1938. Rec. Geol. Surv. India, vol. 73, p. 145; Indian Assoc. Cultiv. Sci., 1938, Spec. Publ. no. 6, p. 8. The hypothetical garnet molecule $3MgO.Fe_2O_3.3SiO_2$. Named from the Khohar meteorite (India, fell 1910), it being suggested that such a garnet was the original material of enstatite chondrules. [M.A. 7–169.]

**Kirovite.** G. N. Vertushkov, 1939. Bull. Acad. Sci. URSS, Sér. Géol., 1939, no. 1, p. 109 (кировит), p. 114 (kirovite). A variety of melanterite, containing MgO 7·45 %, $(Fe,Mg)SO_4.7H_2O$, resulting from underground fires in the Kalata mine, Kirovgrad, Ural. Named after Mr. S. M. Kirov (С. М. Киров). *See* Cuprokirovite and Jarošite. [M.A. 7–418.]

**Kolskite.** N. E. Efremov, 1939. Compt. Rend. (Doklady) Acad. Sci. URSS, vol. 22, p. 433 (kolskite). V. A. Afanasiev, ibid., 1939, vol. 25, p. 516. A serpentine mineral with the composition $5MgO.4SiO_2.4H_2O$,

from the Kola peninsula, Russia. Named from the locality. [M.A. 7–370.]

**Kotoite.** T. Watanabe, 1939. Min. Petr. Mitt. (Tschermak), vol. 50, p. 441; Fortschr. Min. Krist. Petr., vol. 23, p. clxvi (Kotoit). Magnesium borate, $Mg_3B_2O_6$, occurring abundantly as a granular (orthorhombic) constituent of dolomitic marble in Korea. Named after Professor Bundjirô Kotô (1856–1935), Japanese geologist. [M.A. 7–315.]

**Kratochvilite.** R. Rost, 1937. [Rozpravy České Akad.]; Bull. Internat. Acad. Sci. Bohême, 1937, vol. —, preprint, p. 6 (Kratochvílite). An organic compound $C_{13}H_{10}$, fluorene (14th List), formed by burning of pyritous shale in Bohemia. Named after Prof. Josef Kratochvíl, of the Karlovy University, Praha. [M.A. 7–11.]

**Leightonite.** C. Palache, 1938. Amer. Min., vol. 23, p. 34; M. C. Bandy, ibid., p. 719. A trimetal sulphate, $K_2Ca_2Cu(SO_4)_4.2H_2O$, as pale blue triclinic (pseudo-orthorhombic) crystals from Chile. Named after Dr. Tomas Leighton, Professor of Mineralogy in the University of Santiago, Chile. [M.A. 7–59, 223.]

**Lemnäsite.** G. Pehrman, 1939. Acta Acad. Aboensis, Math. et Physica, vol. 12, no. 6, p. 12 (Lemnäsit). Phosphate of manganese, iron, sodium, and calcium, $3R_3(PO_4)_2.2NaOH$, as black masses, probably monoclinic, from Lemnäs, Kimito, Finland. Named from the locality. [M.A. 7–418.]

**Lithium-muscovite.** R. E. Stevens, 1938. Amer. Min., vol. 23, pp. 608, 523 (lithium muscovite). A hypothetical molecule $K_4Li_6Al_6Al_4Si_{12}O_{40}(F,OH)_8$ for expressing the composition of lepidolite. [M.A. 7–353.]

**Lopezite.** M. C. Bandy, 1937. Amer. Min., vol. 22, p. 929. Potassium dichromate, $K_2Cr_2O_7$, as minute orange-red balls in the soda-nitre of Chile. Named after Dr. Emiliano Lopez, of Iquique. [M.A. 7–13.]

**Lovozerite.** V. I. Gerasimovsky, 1939. Compt. Rend. (Doklady) Acad. Sci. URSS, vol. 25, p. 753. Hydrous silicate of zirconium, &c., $R_2O.RO.ZrO_2.6SiO_2.3H_2O$, as black or pink, optically uniaxial grains in the alkalic rocks of Lovozero, Kola peninsula. Differs from eudialyte in containing less alkalis and more water. Named from locality. [M.A. 7–468.]

**Lussatine.** F. Laves, 1939. Naturwiss., vol. 27, p. 706 (Lussatin). A form of silica consisting of cryptocrystalline cristobalite as fibres with

optically negative elongation, distinct from lussatite with positive elongation, corresponding respectively to the pair chalcedony and quartzine of cryptocrystalline fibrous quartz. [M.A. 7–514.]

**Magallanite.** G. A. Fester, J. Cruellas, and F. Gargatagli, 1937. Anal. Soc. Cient. Argentina, vol. 124, p. 211 (magallanita). A hard asphaltum thrown up by the sea on the coast of Magallanes (Magallan), South America. Named from the locality. [M.A. 7–124.]

**Magnesia-goslarite.** C. Milton and W. D. Johnston, 1937. Amer. Min., vol. 22, no. 12, pt. 2, p. 10; 1938, vol. 23, p. 175.

**Magnesia-gralmandite.** L. L. Fermor, 1938. *See* Gralmandite.

**Magnesiocopiapite.** L. G. Berry, 1938. *See* Ferricopiapite.

**Magnesio-cummingtonite.** C. E. Tilley, 1939. Geol. Mag. London, vol. 76, p. 330. A Mg-Fe monoclinic amphibole, with MgO in excess of FeO, corresponding to the iron member grunerite.

**Magnesium-apjohnite.** H. Meixner and W. Pillewizer, 1937. Zentr. Min., Abt. A, 1937, p. 265 (Magnesiumapjohnit). Apjohnite with some magnesium replacing manganese. Synonym of bushmanite (= bosjemanite). [M.A. 7–12.]

**Magnesium-beidellite.** G. Nagelschmidt, 1938. Min Mag., vol. 25, p. 141. A clay mineral with the composition $Mg_3Si_4O_{11}.nH_2O$, regarded as an end-member of the montmorillonite group.

**Magnesium-bentonite.** F. A. Bannister, 1939. Ann. Rep. Chem. Soc., vol. 35 (for 1938), p. 191 (magnesium-bentonite). Described by W. F. Foshag and A. O. Woodford in 1936 [M.A. 6–372] as 'bentonitic magnesian clay-mineral from California' with the formula $7MgO.10SiO_2.5H_2O$ or $2MgO.3SiO_2.3H_2O$.

**Magnesium-halotrichite.** H. Meixner and W. Pillewizer, 1937. Zentr. Min., Abt. A, 1937, p. 266 (Magnesiumhalotrichit). Halotrichite with MgO in place of FeO. [M.A. 7–12.]

**Magnophorite.** R. T. Prider, 1939. Min. Mag., vol. 25, pp. 373, 378. An alkalic amphibole in leucite-rich rocks from Western Australia, allied to katophorite but rich in potassium and magnesium and described as kali-magnesio-katophorite, this term being contracted to magnophorite. It had earlier been named simpsonite (q.v.).

**Mangan-actinolite.** T. Yosimura, 1939. Journ. Fac. Sci. Hokkaido Univ., Ser. 4, vol. 4, p. 424 (Manganactinolite). A variety of actinolite containing MnO 5·79 %.

**Manganese-gralmandite.** L. L. Fermor, 1938. *See* Gralmandite.

**Mangan-knebelite.** T. Yosimura, 1939. Journ. Fac. Sci. Hokkaido Univ., Ser. 4, vol. 4, p. 405 (Manganknebelite). An intermediate member ($Fe_2SiO_4$ 20–40 mol. %) of the fayalite-tephroite series, near to knebelite.

**Manganophyllite.** T. Yosimura, 1939. Journ. Fac. Sci. Hokkaido Univ., Ser. 4, vol. 4, p. 430 (Manganophyllite). The hypothetical molecule $H_4K_2Mn_5Al_4Si_5O_{24}$, corresponding to siderophyllite, to explain the composition of biotite. Not the manganophyll, manganophyllite of L. J. Igelström (1872).

**Mangan-phlogopite.** T. Yosimura, 1939. Journ. Fac. Sci. Hokkaido Univ., Ser. 4, vol. 4, p. 431 (Manganphlogopite). A variety of phlogopite containing MnO 18·24 %.

**Mangan-pickeringite.** H. Meixner and W. Pillewizer, 1937. Zentr. Min., Abt. A, 1937, p. 265 (Manganpickingerit [*sic*]). Pickeringite containing some manganese replacing magnesium. *See* Magnesium-apjohnite. [M.A. 7–12.]

**Mangan-tremolite.** T. Yosimura, 1939. Journ. Fac. Sci. Hokkaido Univ., Ser. 4, vol. 4, p. 425 (Mangantremolite). A variety of tremolite containing MnO 7·38 %.

**Manganvoelckerite.** P. Quensel, 1937. Geol. För. Förh. Stockholm, vol. 59, p. 161 (manganvoelckerite). Manganapatite with fluorine largely replaced by oxygen, $3(Ca,Mn)_3(PO_4)_2.(Ca,Mn)(O,F_2)$. [M.A. 7–10.]

**Mascareignite.** A Lacroix, 1936. Le volcan actif de l'île de la Réunion, Paris, 1936, p. 248 (mascareignite). A form of opaline silica ($H_2O$ 13·61 %) of vegetable origin consisting largely of the siliceous remains of grasses with some diatoms; from Reunion, Indian Ocean. Named from the Mascarene Islands (*Fr.*, Mascareignes), including Reunion (= Mascarenhas = Bourbon), said to have been discovered in 1513 by the Portuguese navigator, Pedro Mascarenhas. [M.A. 7–2.]

**Matrosite.** J. A. Dulhunty, 1939. *See* Gelosite.

**Mesoenstatite.** E. Thilo and G. Rogge, 1939. Ber. Deutsch. Chem. Gesell., Abt. B, vol. 72, p. 352 (Mesoenstatit). E. Thilo, Forschungen und Fortschritte, 1939, vol. 15, p. 171. An enantiotropic modification of $MgSiO_3$ stable between 900° and 1270° C. Enstatite $\rightleftharpoons$ mesoenstatite (900°) $\rightleftharpoons$ clinoenstatite (1270°). [M.A. 7–410.]

**Metahohmannite.** M. C. Bandy, 1938. Amer. Min., vol. 23, p. 748. Hydrated basic ferric sulphate, $Fe_2(SO_4)_2(OH)_2.3H_2O$, as an orange-coloured powder from the partial dehydration of hohmannite, from Chile. [M.A. 7–223.]

**Metakamacite.** E. A. Owen, 1940. Phil. Mag., ser. 7, vol. 29, p. 561. Nickel-iron of the metastable $\alpha_2$-form occurring as the granular plessite in meteorites, as distinct from the plessite consisting of fine crystals of kamacite and taenite. [M.A. 7–538.]

**Metasideronatrite.** M. C. Bandy, 1938. Amer. Min., vol. 23, p. 733. Hydrated basic sulphate of sodium and ferric iron, $Na_4Fe_2(SO_4)_4(OH)_2.3H_2O$, as yellow, fibrous, orthorhombic crystals from Chile. A partly dehydrated form of sideronatrite. [M.A. 7–223.]

**Metasimpsonite.** E. S. Simpson, 1938. Rep. Dept. Mines Western Australia, for 1937, p. 88 (Metasimpsonite), L. E. R. Taylor, Journ. Roy. Soc. Western Australia, 1939, vol. 25 (for 1938–9), p. 93 (meta-simpsonite). An alteration product of simpsonite (q.v.), later identified with microlite.

**Metatalc.** E. Thilo, 1937. Ber. Deutsch. Chem. Gesell., Abt. B, vol. 70, p. 2373 (Metatalk). A modification of magnesium metasilicate, $MgSiO_3$, with crystal-structure different from that of enstatite and clinoenstatite, obtained by dehydrating talc. [M.A. 7–410.]

**Meta-zircon.** J. Lietz, 1937. Zeits. Krist., vol. 98, p. 209 (Meta-Zircon). Zircon of medium density consisting of normal crystalline material with amorphous material. [M.A. 7–131.]

**Mitridatite.** P. A. Dvoichenko, 1914. [Zap. Krym. Obshch. Est. (Bull. Soc. Nat. Crimée), vol. 4, p. 114.] O. M. Shubnikova, Trans. Lomonosov Inst. Acad. Sci. USSR, 1936, no. 7, p. 327; F. V. Chukhrov, ibid., 1937, no. 10, p. 139 (митридатит), p. 148 (mitridatite). Hydrated phosphate of calcium and ferric iron, $3CaO.2Fe_2O_3.2P_2O_5.5H_2O.n$aq, as earthy yellowish-green nodules and veinlets in iron ore in the Kerch peninsula, Crimea. Named from the hill of Mithridat at Kerch, which

was called after Mithridates or Mithradates VI (died *c.* 63 B.C.), king of Pontus. [M.A. 7-60.]

**Mofettite.** G. Vavrinecz, 1939. Földtani Közlöny, Budapest, vol. 69, pp. 82, 98 (Mofettit). Carbon dioxide, $CO_2$, as a natural gas. Named from *mofeta* (Span.), mephitis, noxious emanation; and *mofetta* (Ital.), the fissure from which the gas, mainly $CO_2$, escapes. [M.A. 7-471.]

**Monothermite.** D. S. Belyankin and V. P. Ivanova, 1936. Vernadsky jubilee volume, vol. 1, p. 561 (монотермит), p. 562 (Monothermit). D. S. Belyankin, Compt. Rend. (Doklady) Acad. Sci. URSS, 1938, vol. 18, p. 673 (monothermite), p. 674 (monothermite or endothermite). A finely scaly clay mineral, $0{\cdot}2K_2O.Al_2O_3.3SiO_2.1{\cdot}5H_2O+0{\cdot}5aq$, differing from kaolin in showing only one thermal effect on the heating curve, viz. an endothermal effect at 550° and no exothermal effect at 900–950° C. [M.A. 7-170.]

**Montgomeryite.** E. S. Larsen, 3rd, 1940. Amer. Min., vol. 25, p. 315. Hydrous phosphate of calcium and aluminium, $Ca_4Al_5(PO_4)_6(OH)_5.11H_2O$, as green to colourless monoclinic crystals in variscite nodules from Utah. Named after Mr. Arthur Montgomery, of New York City. [M.A. 7-513.]

**Moschellandsbergite.** H. Berman and G. A. Harcourt, 1938. Amer. Min., vol. 23, p. 764. The body-centred cubic $\gamma$-phase of silver-amalgam, $Ag_2Hg_3$ (Hg 73 %), as distinct from the face-centred cubic $\alpha$-phase of mercurial silver (var. arquerite). Named from the locality, Moschellandsberg, Rhenish Bavaria. [M.A. 7-224.]

**Mussolinite.** A. Serra, 1936. [Osservazioni sul giacimento «Orantalco» in provincia di Nuoro (Sardegna), Studi Sassaresi, vol. 14, p. 5], Periodico Min. Roma, 1937, vol. 8, p. 88 (Mussolinite). A variety of talc from Sardinia. Presumably named after Signor Benito Mussolini (1883–).

**Myrmeki-perthitoid.** P. Quensel, 1939. *See* Perthitoid.

**Neo-Permutit.** Zeits. Krist., 1937, vol. 98, pp. 33–34. Trade-name of the Permutit Company for glauconite used as a water softener.

**Nickel-olivine.** D. P. Grigoriev, 1937. Bull. Soc. Nat. Moscou, vol. 45, (Sect. Géol., vol. 15), p. 152 (никелевый оливин), p. 153 (nickel olivine). Artificial crystals of nickel orthosilicate, $Ni_2SiO_4$. [M.A. 7-142.]

**Orlandinite.** F. Ahlfeld and J. Muñoz Reyes, Mineralogie von Bolivien, 1938, p. 31. Local name for a lead-grey compact ore abundant in the Porvenir mine, Huanuni, Bolivia. It is presumably boulangerite.

**Orthoriebeckite.** K. Willmann, 1937. Neues Jahrb. Min., Abt. A, Beil.-Bd. 72, p. 390 (Orthoriebeckit). The darkest coloured and least birefringent member of the riebeckite-laneite series, i.e. riebeckite proper.

**Overite.** E. S. Larsen, 3rd, 1938. Amer. Min., vol. 23, no. 12, pt. 2, p. 9; 1939, vol. 24, p. 188; 1940, vol. 25, p. 315. Hydrous phosphate of calcium and aluminium, $Ca_3Al_8(PO_4)_8(OH)_6.15H_2O$, as pale green to colourless orthorhombic crystals in variscite nodules from Utah. Named after Mr. Edwin Over, of Colorado Springs, Colorado. [M.A. 7–224, 513.]

**Oxidapatite.** A. N. Winchell, Elements of optical mineralogy, 2nd edit., 1927, p. 128 (oxidapatite). Variant of oxy-apatite (6th List), synonym of voelckerite (6th List), $3Ca_3P_2O_8.CaO$.

**Palladium-amalgam.** J. B. Harrison, 1925. Official Gazette, British Guiana, no. 71; Min. Mag., 1928, vol. 21, p. 398 (palladium amalgam). A. Cissarz, Zeits. Krist., 1930, vol. 74, p. 510 (Palladium-amalgam). H. Berman and G. A. Harcourt, Amer. Min., 1938, vol. 23, p. 764 (Palladium-Amalgam). Synonym of potarite (11th List). [M.A. 3–4, 7–224.]

**Parabutlerite.** M. C. Bandy, 1938. Amer. Min., vol. 23, p. 742. Hydrated basic ferric sulphate, $Fe(SO_4)(OH).2H_2O$, orange-coloured, orthorhombic, as an alteration product of copiapite, from Chile. Dimorphous with butlerite (11th List). [M.A. 7–223.]

**Paradeweylite.** N. E. Efremov, 1939. Compt. Rend. (Doklady) Acad. Sci. URSS, vol. 22, p. 423 (paradeveilite). A hypothetical hydrated silicate of magnesium, $4MgO.3SiO_2.3H_2O$, differing from deweylite in containing less water. [M.A. 7–370.]

**Parahilgardite.** C. S. Hurlbut, 1938. Amer. Min., vol. 23, p. 765. Triclinic-pedial crystals dimorphous with hilgardite (q.v.). [M.A. 7–224, 355.]

**Pararammelsbergite.** M. A. Peacock, 1939. Amer. Min., vol. 24, no. 12, pt. 2, p. 10; 1940, vol. 25, p. 211. Material recently described as rammelsbergite, $NiAs_2$, from Ontario is found to give X-ray data differing from those for rammelsbergite from Germany, and it is now named pararammelsbergite. [M.A. 7–469, 507.]

**Percivalite.** S. Weidman, 1907. Bull. Wisconsin Geol. Nat. Hist. Surv., no. 16, p. 283 (Percivalite). A green soda-pyroxene intergrown with blue amphibole (crocidolite) consisting mainly of $NaAlSi_2O_6$ (jadeite) and $NaAlSiO_4$, from Wisconsin. Named after James Gates Percival (1795–1856), at one time State Geologist of Wisconsin.

**Perthitoid.** P. Quensel, 1939. Geol. För. Förh. Stockholm, vol. 60 (for 1938), p. 626. A perthitic texture shown by non-felspathic minerals, e.g. symplektic intergrowths of chondrodite-calcite, epidote-quartz, plagioclase-hornblende. Myrmeki-perthitoid when one of the components is vermicular. [M.A. 7–335.]

**Phosphor-rösslerite.** O. M. Friedrich and J. Robitsch, 1939. Zentr. Min., Abt. A, 1939, p. 142 (Phosphorrößlerit), p. 143 (Phosphor-Rößlerit). Hydrous acid magnesium phosphate, $MgHPO_4.7H_2O$, as monoclinic crystals isomorphous with rösslerite ($MgHAsO_4.7H_2O$). From Salzburg. *See* Arsen-rösslerite. [M.A. 7–316, 495.]

**Picroamosite.** D. P. Serdyuchenko, 1936. Bull. Acad. Sci. URSS, Cl. Sci. Math. Nat., Sér. Géol., 1936, p. 689 (пикроамозит), p. 695 (picroamosite). A fibrous orthorhombic amphibole analogous to amosite (8th List; M.A. 4–92), with MgO (29·26 %) in place of FeO; from Caucasus. Named from *πικρός*, bitter, and amosite. [M.A. 7–9.]

**Picroknebelite.** T. Yosimura, 1939. Journ. Fac. Sci. Hokkaido Univ., Ser. 4, vol. 4, p. 404 (Picroknebelite). A variety of knebelite containing MgO 4 %. [M.A. 7–412.] W. F. Foshag, Amer. Min., 1939, vol. 24, p. 659, gives this as 'Picrotephroite'.

**Poly-irvingite.** P. Quensel, 1937. Geol. För. Förh. Stockholm, vol. 59, p. 467 (poly-irvingite). A lithia-mica much richer in silica than irvingite [4th List], occurring as an alteration product of amblygonite in Sweden. [M.A. 7–108.]

**Potash-analcime.** E. S. Larsen and B. F. Buie, 1938. Amer. Min., vol. 23, p. 837 (potash analcime). A potash-rich ($K_2O$ 4·48 %) variety of analcime in analcime-basalt from Montana. [M.A. 7–448.]

**Proglauconite.** I. Y. Mikei, 1936. V. I. Vernadsky jubilee volume, Acad. Sci. USSR, vol. 2, pp. 818, 825 (проглауконит), p. 826 (Proglaukonit). A hypothetical molecule, an alumoferrisilicate $R_2O_3.4SiO_2$, forming the basis of glauconite. [M.A. 7–162.]

**Promontmorillonite.** I. D. Sedletzky, 1937. Compt. Rend. (Doklady) Acad. Sci. URSS, vol. 17, p. 375 (Promontmorillonit); ibid., 1940, vol. 26, p. 241 (Promontmorillonite). An artificial preparation with the chemical composition of montmorillonite, but amorphous (showing no X-ray pattern). On long standing it passes into typical montmorillonite.

**Protocalcite.** E. Balogh, 1937. Erdélyi Múzeum, Kolozsvár, 1937, vol. 42, p. 147 (Protokálcit, Protocalcit). A mould-like encrustation of calcium carbonate in a limestone cavern, consisting of fine needles with oblique optical extinction. Evidently identical with lublinite (5th and 6th Lists). [M.A. 7–515.]

**Pseudo-succinite.** J. D. Buddhue, 1938. Mineralogist, Portland, Oregon, vol. 6, no. 1, p. 21. Amber from Equilleres, Basses-Alpes, France, differing from Baltic amber in its reaction to solvents. [M.A. 7–265.]

**Pseudo-zircon.** B. W. Anderson and C. J. Payne, 1937. Gemmologist, London, vol. 7, p. 298. Zircons of low specific gravity (3·95–4·05), which consist of amorphous $SiO_2$ and $ZrO_2$, and increase in density when heated. *See* Meta-zircon and Zirconoid.

**Pyroxenoid.** H. Berman, 1937. Amer. Min., vol. 22, pp. 360, 389 (Pyroxenoid family). Group name for minerals of the rhodonite and wollastonite series, as distinct from the pyroxene group.

**Retinosite.** J. A. Dulhunty, 1939. Journ. Roy. Soc. New South Wales, vol. 72, p. 184. *See* Gelosite.

**Rhenanite.** H. H. Franck, M. A. Bredig, and R. Frank, 1936. Zeits. Anorg. Chem., vol. 230, p. 2 (Rhenaniaphosphat, Rhenanit). An artificial fertilizer prepared by the Rhenania process, said to have a composition near $Ca_4Na_6(PO_4)_4CO_3$, but shown by R. Klement and P. Dihn (ibid., 1938, vol. 240, p. 40) to be a mixture of $CaNaPO_4$ and $Na_2CO_3$. Potassium-rhenanite, Kalium-Rhenanit (H. H. Franck, M. A. Bredig, and E. Kanert, ibid., 1938, vol. 237, p. 49) is the corresponding compound $CaKPO_4$. Named from Latin, *Rhenus*, *Rhenanus* = Rhine, Rhenish. [M.A. 7–553.]

**Rhodanite.** G. Vavrinecz, 1939. Földtani Közlöny, Budapest, vol. 69, pp. 82, 98 (Rhodanit). Sulphocyanic (rhodanic) acid, HCNS, as a natural gas. Named from *ῥόδον*, rose. [M.A. 7–471.]

**Russellite.** M. H. Hey and F. A. Bannister, 1938. Min. Mag., vol. 25, p. 41. Yellow pellets approximating in composition to $Bi_2O_3.WO_3$. X-ray examination suggests that it is a mixed (tetragonal) crystal of $Bi_2O_3$ and $WO_3$, rather than a bismuth tungstate. Occurs as an alteration product with native bismuth and wolframite in Cornwall. Named after Mr. Arthur Edward Ian Montagu Russell (1878–), of Swallowfield Park, Berkshire.

**Rustite.** J. D. Buddhue, 1939. *See* Ayasite.

**Ruthenosmiridium.** S. Aoyama, 1936. Sci. Rep. Tôhoku Univ., Ser. 1, K. Honda anniv. vol., p. 527. A variety of iridosmine containing ruthenium (Ru 21·08 %); hexagonal, RuOsIr. From Japan. [M.A. 7–315.]

**Sakiite.** N. S. Kurnakov and B. L. Ronkin, 1931. [Priroda, Acad. Sci. USSR, 1931, no. 7, p. 619.] O. M. Shubnikova, Trans. Lomonosov Inst. Acad. Sci. USSR, 1936, no. 7, p. 333 (Сакиит, Sakiite). Synonym of hexahydrite, $MgSO_4.6H_2O$, from the Saki salt lakes, Crimea. Named from the locality. [M.A. 4–378.]

**Saleeite.** A. Schoep, Meded. Kl. Wetens. Kon. Vlaamsche Acad. Wetens. Lett., 1939, p. 65 (saléeiet), p. 70 (saléeite). The correct form of saleite (13th List), named after Prof. Achille Salée, of Louvain, Belgium.

**Salesite.** C. Palache and O. W. Jarrell, 1939. Amer. Min., vol. 24, p. 388. Copper iodate, $CuIO_3(OH)$, as bluish-green orthorhombic crystals from Chile. Named after Mr. Reno H. Sales, chief geologist of the Anaconda Copper Mining Company. [M.A. 7–369.]

**Sapperite.** R. Potonié, 1924. Kohlenpetrographie, Berlin, 1924, p. 220 (Sapperit). H. Meixner, Zentr. Min., Abt. A, 1938, p. 208; Fortschr. Min. Krist. Petr., 1939, vol. 23, p. xlvi. Pure white cellulose occurring in brown coal of Miocene age from Saxony, and in fossil wood in basalt-tuff from Styria. Named after mining director — Sapper, of Klettwitz, Saxony. [M.A. 7–170.]

**Sarospatakite.** I. D. Sedletzky, 1940, Compt. Rend. (Doklady) Acad. Sci. URSS, vol. 26, p. 242 (sarospatakite). The 'Glimmer von Sarospatak' of E. Maegdefrau and U. Hofmann (Zeits. Krist., 1937, vol. 98, p. 33), a micaceous clay from Sarospatak, Hungary. Named from the locality.

**Seyrigite.** A. Lacroix, 1940. Compt. Rend. Acad. Sci. Paris, vol. 210, p. 276 (seyrigite). Tungstate and molybdate of calcium ($MoO_3$ 24 %) intermediate between scheelite and powellite. Named after Mr. Seyrig, manager of the phlogopite mine in Madagascar where the mineral was found. [M.A. 7–469.]

**Sharpite.** J. Mélon, 1938. Bull. Séan. Inst. Roy. Colon. Belge, vol. 9, p. 333. Hydrated carbonate of uranyl, $6UO_3.5CO_2.8H_2O$, as yellowish-green fibrous crusts, perhaps orthorhombic, from Shinkolobwe, Katanga. Named after Major R. R. Sharp, who discovered the uranium deposit at Shinkolobwe. [M.A. 7–225.]

**Shortite.** J. J. Fahey, 1939. Amer. Min., vol. 24, p. 515. Double carbonate of sodium and calcium, $Na_2CO_3.2CaCO_3$, as hemimorphic orthorhombic crystals from Wyoming. Named after Prof. Maxwell Naylor Short (1889–), of the University of Arizona. [M.A. 7–370.]

**Sialite.** N. E. Efremov, 1939. Compt. Rend. (Doklady) Acad. Sci. URSS, vol. 22, p. 434 (sialites). A collective name for hydrous aluminium (Al) silicates (Si) or clay minerals. Later changed to Hydrosialite (q.v.). Compare Siallite (11th List). [M.A. 7–370.]

**Silico-apatite.** I. D. Borneman-Starynkevich, 1938. Compt. Rend. (Doklady) Acad. Sci. URSS, vol. 19, p. 225 (Silico-apatite). A hypothetical molecule $Ca_5Si_3O_9(OH)_4$ substituting $Ca_5P_3O_{12}F_4$ in apatite ($SiO_2$ 5·95 %) from Shishim mines, Ural. [M.A. 7–352.]

**Simpsonite.** H. Bowley, 1938. Rep. Dept. Mines Western Australia, for 1937, pp. 93, 88; Journ. Roy. Soc. Western Australia, 1939, vol. 25 (for 1938–39), p. 89; L. E. R. Taylor, ibid., p. 93. Hydrous tantalate of aluminium and calcium, $CaO.5Al_2O_3.4Ta_2O_5.2H_2O$, hexagonal, from Western Australia. Named after Dr. Edward Sydney Simpson (1875–1939), Government Mineralogist and Analyst of Western Australia. [M.A. 7–369.]

The name simpsonite has also been applied to an alkalic amphibole (A. Wade and R. T. Prider, Rep. Brit. Assoc. Adv. Sci., Cambridge, 1938, p. 419. R. T. Prider, Abstr. Diss. Univ. Cambridge, 1939, for 1937–38, p. 93; Min. Mag., 1939, vol. 25, p. 378) which was afterwards renamed magnophorite (q.v.).

**Soda-alunite.** J. D. Laudermilk, 1935. Amer. Min., vol. 20, p. 57 (Soda-alunite). Alunite containing 4·62 % $Na_2O$ from Hawaii. Synonym of Natroalunite (3rd List). [M.A. 6–188.]

**Soda-killinite.** P. Quensel, 1938. Geol. För. Förh. Stockholm, vol. 60, pp. 205, 215 (soda-killinite). An alteration product of spodumene, similar to killinite but rich in soda, and apparently consisting of a mixture of soda-spodumene (q.v.), cimolite, halloysite, and illite (q.v.). [M.A. 7–120.]

**Soda-purpurite.** P. Quensel, 1937. Geol. För. Förh. Stockholm, vol. 59, p. 96 (Na-purpurite); ibid., 1939, vol. 61, p. 69 (soda-purpurite). The end-product, $(Mn,Fe)PO_4$, of alteration of the soda mineral varulite (14th List); as distinct from purpurite, $(Mn,Fe)PO_4$, an alteration product of the lithium mineral lithiophilite. Similarly, Na-heterosite and heterosite, both also $(Mn,Fe)PO_4$, alteration products of headdenite (14th List) and triphylite. [M.A. 7–120.]

**Soda-spodumene.** P. Quensel, 1938. Geol. För. Förh. Stockholm, vol. 60, p. 214 (Na-spodumene). A presumed base-exchange product of spodumene with Na in place of Li, as distinct from the mixture $\beta$-spodumene of Brush and Dana, 1880. Not the Natron-Spodumen of J. J. Berzelius, 1824, = soda-spodumene (J. D. Dana, 1844) = oligoclase. [M.A. 7–120.]

**Stibiomicrolite.** P. Quensel and T. Berggren, 1938. Geol. För. Förh. Stockholm, vol. 60, p. 216 (Stibiomicrolite). O. Rosén and A. Westgren, ibid., p. 226 (Stibio-Microlite). An unknown mineral with the assumed composition $(Sb,Ca)(Ta,Nb)(O,OH)_4$, which by alteration has given rise to a mixture of stibiotantalite and microlite, together with some antimony and senarmontite. [M.A. 7–120.]

**Stiepelmannite.** P. Ramdohr and E. Thilo, 1940. Zentr. Min., Abt. A, 1940, p. 1 (Stiepelmannit). Basic phosphate of yttrium, ytterbium, and aluminium, $(Yt,Yb)PO_4.AlPO_4.2Al(OH)_3$, as rhombohedral crystals isomorphous with the cerium mineral florencite. Named after Mr. — Stiepelmann, owner of the gem mine in South-West Africa where the mineral was found. [M.A. 7–514.]

**Strontium-apatite.** A. N. Winchell, 1927. Elements of optical mineralogy, 2nd edit., pt. 2, p. 128 (Strontiumapatite). Synonym of fermorite (5th List).

**Sulfurosite.** G. Vavrinecz, 1939. Földtani Közlöny, Budapest, vol. 69, pp. 82, 98 (Sulfurosit). Sulphur dioxide, $SO_2$, as a natural gas. [M.A. 7–471.]

**Tantalopolycrase.** E. S. Simpson, 1938. Journ. Roy. Soc. W. Australia, vol. 24, p. 112; Rep. Dept. Mines, W. Australia, for 1937, p. 88. Titano-tantalate of yttrium, $YtTi_2TaO_8$, differing from polycrase in containing tantalum in place of niobium. From Western Australia. Previously included under tanteuxenite [$YtTi_2TaO_8$+ $Yt_2Ta_2O_8$(+$CaTiTa_2O_8$,' &c.)] (12th List).

**Tchinglusuite.** V. I. Gerasimovsky, 1938. *See* Chinglusuite.

**Teepleite.** W. A. Gale, W. F. Foshag, and M. Vonsen, 1939. Amer. Min., vol. 24, p. 48. (Earlier mentioned in Amer. Min., 1938, vol. 23, p. 90; and A. Pabst, Minerals of California, 1938, p. 167.) Hydrated borate and chloride of sodium, $Na_2B_2O_4.2NaCl.4H_2O$, as tetragonal crystals from the dried-up Borax Lake, California. Named after the late Dr. John E. Teeple, who described the artificial salt in 1929. [M.A. 7–263.]

**Teineite.** T. Yosimura, 1939. Journ. Fac. Sci. Hokkaido Univ., Ser. 4, vol. 4, p. 465. Hydrous tellurate and sulphate of copper, $Cu(Te,S)O_4.2H_2O$, as blue orthorhombic crystals from Teine mine, Japan. Named from the locality. [M.A. 7–316.]

**Thanite.** G. Vavrinecz, 1939. Földtani Közlöny, Budapest, vol. 69, pp. 82, 98 (Thanit). Carbon oxysulphide, COS, as a natural gas. Named after Karl Than, who discovered it in 1867. [M.A. 7–471.]

**Tirodite.** J. A. Dunn and P. C. Roy, 1938. Rec. Geol. Surv. India, vol. 73, p. 295 (tirodite). A manganese amphibole (MnO 8·25 %) differing from dannemorite and richterite, from Tirodi, Central Provinces, India. Named from the locality. [M.A. 7–317.]

**Titano-spinel.** J. de Lapparent, 1937. Min. Petr. Mitt. (Tschermak), vol. 49, p. 15 (titano-spinelle). Spinel in the emery of Samos assumed to contain titanium, but not analysed. [M.A. 7–150.]

**Torniellite.** E. Dittler and F. Kirnbauer, 1937. Zeits. Prakt. Geol., vol. 45, p. 120 (Torniellit). An amorphous clay mineral, $Al_2Si_2O_5(OH)_4.H_2O$, near to halloysite. Named from the locality, Torniella, Toscana. [M.A. 7–12.]

**Uran-galena.** O. M. Shubnikova, Trans. Lomonosov Inst. Acad. Sci. USSR, 1937, no. 10, p. 171 (Урановый галенит, Uran-galena). Variant of U-galena (14th List).

**Veatchite.** G. Switzer, 1938. Amer. Min., vol. 23, p. 409; J. Murdoch, ibid., 1938, vol. 23, no. 12, pt. 2, p. 11. Hydrous borate of calcium, $Ca_2B_6O_{11}.2H_2O$, monoclinic, occurring in cross-fibre veins; from California. Named after Dr. John A. Veatch, who first detected borates in California in 1856. [M.A. 7–169, 263.]

**Verdelite.** P. Quensel and O. Gabrielson, 1939. Geol. För. Förh. Stockholm, vol. 61, p. 67. Green tourmaline, completing the series of colour varieties—achroite, rubellite, and indicolite. From *verd* (Old French), *verde* (Italian), and *λίθος*. [M.A. 7–336.]

**Wadeite.** A. Wade and R. T. Prider, 1938. Rep. Brit. Assoc. Adv. Sci. (Cambridge, 1938), 1938, p. 419. R. T. Prider, Abstr. Diss. Univ. Cambridge, 1939, for 1937–38, p. 93; Min. Mag., 1939, vol. 25, pp. 373, 382. Silicate of potassium, zirconium, &c., approximately $K_2CaZrSi_4O_{12}$, as hexagonal plates from Western Australia. Named after Dr. Arthur Wade, who collected the material.

**Weberite.** R. Bøgvad, 1938. Meddel. om Grønland, vol. 119, no. 7 (Weberite). Fluoride of sodium, magnesium, and aluminium, $Na_2MgAlF_7$, as pale grey monoclinic grains in cryolite from Greenland. Named after Theobald Weber, who in 1857 founded the Øresund cryolite works. [M.A. 7–225.]

**Woodhouseite.** D. M. Lemmon, 1937. Amer. Min., vol. 22, p. 939. Hydrated sulphate and phosphate of calcium and aluminium, $2CaO.3Al_2O_3.P_2O_5.2SO_3.6H_2O$, as small colourless rhombohedral crystals from California. Named after Mr. C. D. Woodhouse, of Santa Barbara, California. [M.A. 7–13.]

**Yamaguchilite.** S. Hata, Sci. Papers Inst. Phys. Chem. Research, Tokyo, 1938, vol. 34, p. 622. Another spelling of yamagutilite (14th List). [M.A. 7–263, 264.]

**Yeatmanite.** C. Palache, L. H. Bauer, and H. Berman, 1937. Amer. Min., vol. 22, no. 12, pt. 2, p. 11 (abstract); ibid., 1938, vol. 23, pp. 176, 527. Silico-antimonate of manganese and zinc, $(Mn,Zn)_{16}Sb_2Si_4O_{29}$, as brown triclinic crystals from Franklin Furnace, New Jersey. Named after Mr. Pope Yeatman, mining engineer at Franklin Furnace. [M.A. 7–14, 168.]

**Yttro-columbo-tantalite.** C. Lepierre, 1937. Mem. Acad. Ciên. Lisboa, Cl. Ciên., vol. 1, p. 374 (Ytro-Columbo-Tantalite), p. 369 (Ytrocolumbite). A variety of yttrotantalite with niobium in excess of

tantalum, from Mozambique. The name yttrocolumbite appears in the index to Dana's 'System' (1892) but not in the text. [M.A. 7–470.]

**Zinc-manganocalcite.** G. Gagarin, 1936. Ann. Géol. Péninsule Balkan., vol. 13, p. 74 (Zink-manganokalcit), p. 78 (Zinc-manganocalcite). A variety of calcite containing MnO 3·71 % and ZnO 0·78 %, from Serbia. [M.A. 7–256.]

**Zinc-magnesia-chalcanthite.** C. Milton and W. D. Johnston, 1937. Amer. Min., vol. 22, no. 12, pt. 2, p. 10; 1938, vol. 23, p. 175.

**Zirconoid.** E. E. Kostyleva, 1936. Trans. Lomonosov Inst., Min. Ser., Acad. Sci. USSR, no. 7, p. 223 (цирконоиды), p. 224 (zirconoids). Zircons of low specific gravity and optically isotropic, consisting of a mixture of $ZrO_2$ and $SiO_2$ in a metamict state. The name zirconoid is already in use for the tetragonal form (*hkl*) [e.g. Dana's Textbook Min.]. [M.A. 7–130.]

## SYSTEMATIC CLASSIFICATION OF NEW MINERALS[1]

### Elements

Moschellandsbergite, $Ag_2Hg_3$.
Cuproauride, $Cu_3Au_2$.
Ruthenosmiridium, RuOsIr.

### Sulphides, etc.

Uran-galena.
Brunckite, gel ZnS.
Pararammelsbergite, $NiAs_2$.
Gratonite, $9PbS.2As_2S_3$.
Falkmanite, $3PbS.Sb_2S_3$.
Cuproboulangerite.

### Haloids

Antofagastite, $CuCl_2.2H_2O$.
Weberite, $Na_2MgAlF_7$.

### Oxides

Alumo-berezovite, $(Fe,Mg)O.(Cr,Al)_2O_3$.
Alumo-chrompicotite, $(Mg,Fe)O.(Cr,Al)_2O_3$.
Titano-spinel.
Ilmeno-corundum.
Garividite, $3Mn_2O_4.2Fe_2O_3$.
Devadite, $5Mn_2O_4.5Mn_2O_3.8Fe_2O_3$.

### Hydroxides

Hydrotenorite, $4CuO.H_2O$.
Cupro-asbolane.

### Carbonates

Zinc-manganocalcite.
Shortite, $Na_2CO_3.2CaCO_3$.
Ferropyroaurite, $MgCO_3.2Fe(OH)_2.5Mg(OH)_2.4H_2O$.
Ferripyroaurite, $MgCO_3.2Fe(OH)_3.5Mg(OH)_2.4H_2O$.
Sharpite, $6UO_3.5CO_2.8H_2O$.

### Sulphates, etc.

Ferroepsomite.
Kirovite, $(Fe,Mg)SO_4.7H_2O$.
Jarošite, $(Fe,Mg)SO_4.7H_2O$.
Cuprokirovite, $(Fe,Cu,Mg)SO_4.7H_2O$.
Cuprojarošite, $(Fe,Cu,Mg)SO_4.7H_2O$.
Leightonite, $K_2Ca_2Cu(SO_4)_4.2H_2O$.
Metahohmannite, $Fe_2(SO_4)_3(OH)_2.3H_2O$.
Metasideronatrite, $Na_4Fe_2(SO_4)_4(OH)_2.3H_2O$.
Parabutlerite, $FeSO_4(OH).2H_2O$.
Teineite, $Cu(Te,S)O_4.2H_2O$.

### Chromates, Tungstates

Lopezite, $K_2Cr_2O_7$.
Seyrigite, $Ca(W,Mo)O_4$.
Russellite, $Bi_2O_3.WO_3$.

[1] Only selected names given in the preceding alphabetical list are here included.

### Iodate

Salesite, $CuIO_3(OH)$.

### Borates

Kotoite, $Mg_3B_2O_6$.
Veatchite, $Ca_2B_6O_{11}.2H_2O$.
Inderite, $Mg_2B_6O_{11}.15H_2O$.
Bandylite, $CuB_2O_4.CuCl_2.4H_2O$.
Hilgardite, $Ca_3(B_6O_{11})_3Cl_4.4H_2O$.
Parahilgardite, $Ca_3(B_6O_{11})_3Cl_4.4H_2O$.
Teepleite, $Na_2B_2O_4.2NaCl.4H_2O$.

### Phosphates, etc.

Alkali-apatite.
Strontium-apatite.
Silico-apatite.
Ellestadite, $Ca_{10}(P,S,Si)_6O_{24}(Cl,F,OH)_2$.
Abukumalite, $CaYt_2(Si,P)_2O_8$.
Manganvoelckerite,
$3(Ca,Mn)_3(PO_4)_2.(Ca,Mn)(O,F_2)$.
Soda-purpurite, $(Mn,Fe)PO_4$.
Lemnäsite, $3(Mn,Fe,Ca)_3(PO_4)_2.2NaOH$.
Stiepelmannite,
$(Yt,Yb)PO_4.AlPO_4.2Al(OH)_3$.
Azovskite, $FePO_4.2Fe(OH)_3.3H_2O$.
Overite, $Ca_3Al_8(PO_4)_8(OH)_6.15H_2O$.
Montgomeryite,
$Ca_4Al_5(PO_4)_6(OH)_5.11H_2O$.
Woodhouseite,
$2CaO.3Al_2O_3.P_2O_5.2SO_3.6H_2O$.
Phosphor-rösslerite, $MgHPO_4.7H_2O$.
Arsen-rösslerite, $MgHAsO_4.7H_2O$.

### Niobates, etc.

Tantalpolycrasite.
Yttro-columbo-tantalite.
Stibiomicrolite, $(Sb,Ca)(Ta,Nb)(O,OH)_4$.
Simpsonite, $CaO.5Al_2O_3.4Ta_2O_5.2H_2O$.

### Silicates

Barium-albite.
Metaenstatite, $MgSiO_3$.
Metatalc, $MgSiO_3$.
Bidalotite, Al-hypersthene.
Chrome-acmite.
Diaspodumene.
Soda-spodumene.
Caesium-spodumene.
Bedenite, $H_2Ca_2Mg_4AlFe'''Si_8O_{26}$.
Picroamosite.
Ferrigedrite.
Ferrogedrite.
Fluor-tremolite.
Mangan-actinolite.
Tirodite, Mn-amphibole.
Magnesio-cummingtonite.
Magnophorite, K-Mg-katophorite.
Nickel-olivine.
Ferrohortonolite.
Iron-tephroite.
Mangan-knebelite.
Ferribiotite.
Ferriwotanite.
Lithium-muscovite.
Poly-irvingite, var. Li-mica.
Wadeite, $K_2CaZrSi_4O_{12}$.
Chkalovite, $Na_2Be(SiO_3)_2$.
Yeatmanite, $(Mn,Zn)_{16}Sb_2Si_4O_{29}$.
Lovozerite, $R_2O.RO.ZrO_2.6SiO_2.3H_2O$.
Aminoffite, $Ca_8Be_3AlSi_8O_{28}(OH).4H_2O$.
Armenite, $BaCa_2Al_6Si_9O_{28}.2H_2O$.
Chinglusuite,
$2(Na,K)_2O.5(Mn,Ca)O.3(Ti,Zr)O_2.$
$14SiO_2.9H_2O$.
Cuprorivaite, hyd.sil.Cu,Ca,Al,Na.
Ferrigarnierite.
Proglauconite, $(Al,Fe)_2O_3.4SiO_2$.
Hydroforsterite, $Mg_2SiO_4.2H_2O$.
Karachaite, $MgO.SiO_2.H_2O$.
Adigeite, $5MgO.3SiO_2.3\frac{1}{2}-4H_2O$.
Kolskite, $5MgO.4SiO_2.4H_2O$.
Magnesium-beidellite,
$3MgO.4SiO_2.nH_2O$.
Magnesium-bentonite,
$2MgO.3SiO_2.3H_2O$.
Paradeweylite, $4MgO.3SiO_2.3H_2O$.
Gedroitzite, $Na_2O.Al_2O_3.3SiO_2.2H_2O$.
Foshallassite, $3CaO.2SiO_2.3H_2O$.
Potash-analcime.

### Hydrocarbons

Gelosite.
Humosite.
Kansasite.
Kratochvilite.
Magallanite.
Matrosite.
Pseudo-succinite.
Retinosite.
Sapperite.

## INDEX TO THE AUTHORS OF MINERAL NAMES

This index supplements those previously given for Lists 1–5 (Min. Mag. 1910, vol. 15, p. 436) and Lists 6–10 (Min. Mag. 1925, vol. 20, p. 471), and so brings up to date the very useful index given in A. H. Chester's 'A dictionary of the names of minerals' (New York and London, 1896).

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