Sixteenth list of new mineral names.[1]

By L. J. SPENCER, C.B.E., M.A., Sc.D., F.R.S.

Formerly Keeper of Minerals in the British Museum.

[Communicated June 3, 1943.]

Abkhazite. N. E. Efremov, 1940. Trans. Inst. Geol. Sci., Acad. Sci. USSR, 1938 [i.e. 1940], no. 11 (Min. Geochem. Ser., no. 3), p. 37 (абхазит). A monoclinic amphibole-asbestos in which the ratio (Mg,Fe) : Ca is 4 : 3 (instead of 5 : 2 as in tremolite and actinolite). Named from the province Abkhaziya (Абхазия), Georgia, Transcaucasia. [M.A. **8**–2.]

Ablykite. I. D. Sedletzky and S. M. Yusupova, 1940. Compt. Rend. (Doklady) Acad. Sci. URSS, vol. 26, p. 244 (Ablick clay, ablikite), p. 946 (ablykite). A clay mineral close to halloysite containing some K, Mg, and Ca, with distinctive thermal and X-ray characters. $RO.2R_2O_3.5SiO_2.6H_2O$. Named from the locality, Ablyk, Uzbekistan. [M.A. **8**–147, 342.]

Alkali-montmorillonite. W. Noll, 1936. *See* Calcium-montmorillonite.

Barbertonite. C. Frondel, 1940. Amer. Min., Program and abstracts, December 1940, p. 6; Amer. Min., 1941, vol. 26, pp. 196, 311. Hydrous basic carbonate of magnesium and chromium, $Cr_3Mg_6(OH)_{16}CO_3.4H_2O$, as hexagonal scales dimorphous with the rhombohedral stichtite. Named from the locality, Barberton, Transvaal. [M.A. **8**–51, 100.]

Barium-nepheline. A. S. Ginzberg, 1915. Ann. Inst. Polytechn. Pétrograde, vol. 23. Artificially prepared hexagonal $BaAl_2Si_2O_8$, a high-temperature analogue of celsian. [M.A. **2**–153; Min. Mag. **26**–243.]

Barium-sanidine. E. S. Larsen *et alii*, 1941. Bull. Geol. Soc. Amer., vol. 52, p. 1849 (barium sanidine). A variety of sanidine containing BaO 5% from the Highwood Mountains, Montana. [M.A. **8**–243.]

Bellingerite. H. Berman and C. W. Wolfe, 1940. Amer. Min., vol. 25, p. 505. Hydrous copper iodate, $3Cu(IO_3)_2.2H_2O$, as green triclinic crystals from Chuquicamata, Chile. Named after Mr. Herman Carl Bellinger, vice-president of the Chile Exploration Company. [M.A. **8**–3.]

Bemmelenite. F. V. Chukhrov, 1936. [Colloids in the earth's crust (Russ.), Acad. Sci. USSR, 1936, p. 103.] O. M. Shubnikova, Trans. Inst. Geol. Sci., Acad. Sci. USSR, 1938 [i.e. 1940], no. 11 (Min. Geochem. Ser., no. 3), p. 7 (Беммелент, Bemmelenite). Colloidal ferrous carbonate, the amorphous analogue of chalybite. Named after Prof. Jakob Maarten van Bemmelen (1830–1911) of Leiden, who described the material occurring in peat deposits (Zeits. Anorg. Chem., 1900, vol. 22, p. 316).

[1] Previous lists of this series have been given every three years at the ends of vols. 11–25 (1897–1940) 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. **8**–2].

Bradleyite. J. J. Fahey, 1941. Amer. Min., vol. 26, p. 646. A double salt of sodium phosphate and magnesium carbonate, $Na_3PO_4.MgCO_3$, as very fine-grained material in saline oil-shale from Wyoming. Named after Dr. Wilmot Hyde Bradley (1899–) of the United States Geological Survey. [M.A. 8–229.]

Brammallite. F. A. Bannister, 1943. Min. Mag., vol. 26, p. 304. A micaceous mineral differing from illite (15th List) in containing soda in excess of potash, also called sodium-illite; from crevices in coal-measure shales from Llandebie, South Wales. Named after Dr. Alfred Brammall (1879–) of the Imperial College of Science and Technology, London.

Brodrickite. H. C. Dake, 1941. The Mineralogist, Portland, Oregon, vol. 9, p. 443. A micaceous mineral, apparently an alteration product of phlogopite, from Bolton, Massachusetts. Named after Mr. John H. Brodrick, of Clinton, Massachusetts, who collected the material. [M.A. 8–230.]

Brownmillerite. E. Spohn, 1932. [Dissertation, Berlin, 1932]; Zement, Charlottenburg, 1932, vol. 21, p. 702 (Brownmiller'sche Verbindung), p. 732 (Brownmillerit). S. Solacolu, Zement, 1932, vol. 21, p. 301 (Brownmillerit). Tetracalcium aluminoferrite, $4CaO.Al_2O_3.Fe_2O_3$, first prepared by W. C. Hansen, L. T. Brownmiller, and R. H. Bogue, Journ. Amer. Chem. Soc., 1928, vol. 50, p. 396, and afterwards detected in Portland cement, and later in dolomite-silica fire-bricks (J. R. Rait, Second Rep. Refractory materials, Iron and Steel Inst., 1942, Special Rep. no. 28, p. 66; Nature, London, 1942, vol. 150, p. 134). Named after Dr. Lorrin Thomas Brownmiller (1902–) of the Alpha Portland Cement Company, Easton, Pennsylvania.

Cadwaladerite. S. G. Gordon, 1941. Notulae Naturae, Acad. Nat. Sci. Philadelphia, no. 80. Hydrous basic aluminium chloride, $Al(OH)_2Cl.4H_2O$, as amorphous grains in halite from Cerro Pintados, Chile. Named after Charles M. B. Cadwalader, President of the Academy of Natural Sciences of Philadelphia. [M.A. 8–187.]

Calcium-montmorillonite. W. Noll, 1936. Chemie der Erde, vol. 10, p. 137 (Ca-Montmorillonit). An artificially prepared clay mineral with calcium in place of magnesium. I. D. Sedletzky, Compt. Rend. (Doklady) Acad. Sci. URSS, 1940, vol. 26, p. 154 (calcium montmorillonite), records its presence in Russian saline soils and gives a formula $(OH)_8(Al_2Ca_3)Si.CaSi_4O_{10}$, as distinct from Mg-montmorillonite, $(OH)_8(Al_2Mg_3)Si.MgSi_4O_{10}$. W. Noll (pp. 135, 137) also mentions Mg-, Na-, K-, and alkali-montmorillonites. U. Hofmann and W. Bilke, Kolloid-Zeits., 1936, vol. 77, pp. 243, 244, obtained Ca-, H-, and Na-montmorillonites as base-exchange products of bentonitic montmorillonite. [M.A. 6–353, 7–97, 8–146.]

Calingastite. V. Angelelli and R. A. Trelles, 1938. [Bol. Obras Sanitarias de la Nación, Buenos Aires, nos. 8–10, p. 40.] S. G. Gordon, Notulae Naturae, Acad. Nat. Sci. Philadelphia, 1941, nos. 89 and 92. A zinciferous variety of melanterite $(Fe,Zn,Cu)SO_4.7H_2O$, containing FeO 16·67, ZnO 8·42, CuO 1·29%, from sulphate deposits between San Juan and Calingasta, Argentina. Named from the locality. Cf. zinc-copper-melanterite (9th List). [M.A. 8–187.]

Clinobarrandite. D. McConnell, 1940, Amer. Min., vol. 25, p. 719. Hydrous aluminium ferric phosphate, $(Al,Fe)PO_4.2H_2O$, shown by X-rays to be mono-

clinic, and so dimorphous with the orthorhombic barrandite with which it is intimately intermixed, from Manhattan, Nevada. [M.A. 8–50.]

Cobalt-löllingite. R. J. Holmes, 1942. Science, New York, vol. 96, p. 90 (cobaltiferous löllingite), p. 92 (cobalt-löllingite). Synonym of safflorite, which always contains iron, $(Co,Fe)As_2$, and gives the same X-ray pattern as löllingite. [M.A. 8–380.]

Columbomicrolite. J. E. de Villiers, 1941. Amer. Min., vol. 26, p. 501. Microlite containing niobium in place of tantalum, from Eshowe, Natal. [M.A. 8–188.]

Cryptomelane. W. E. Richmond and M. Fleischer, 1942. Amer. Min., vol. 27, p. 607. L. S. Ramsdell, ibid., p. 611. Potassium-manganese manganate giving an X-ray pattern distinct from psilomelane (Ba–Mn manganate). Named from *κρυπτός*, hidden, and *μέλᾶς*, *-ᾶνος*, black. [M.A. 8–310.]

Djalmaite. C. P. Guimarães, 1939. Ann. Acad. Brasil. Sci., vol. 11, p. 347 (DJALMAITA), p. 350 (DJALMAÍTA). Amer. Min., 1941, vol. 26, p. 343 (Djalmaite). Hydrous tantalate of uranium, as yellow octahedra from Brazil. The tantalum analogue of betafite. Named after Dr. Djalma Guimarães, of the Geological and Mineralogical Survey of Brazil. [M.A. 8–2, 100.]

Donbassite. E. K. Lazarenko, 1940. Compt. Rend. (Doklady) Acad. Sci. URSS, vol. 28, p. 519 (donbassites). A group of hydrous alumino-silicates, $H_{14}Al_8Si_5O_{29}$, &c., with small amounts of Fe, Mg, Ca, Na, closely resembling pyrophyllite. Previously described as α-chloritite (7th List). Named from the locality, Donetz basin, Ukraine. [M.A. 8–53.]

Elkonite. M. L. Tainter, G. Kulchar, and A. B. Stockton, 1940. Journ. Amer. Pharmac. Assoc., vol. 29, p. 306. A colloidal clay from Elko, Nevada. [M.A. 8–4.]

Endellite. L. T. Alexander, G. T. Faust, S. B. Hendricks, H. Insley, and H. F. McMurdie, 1943. Amer. Min., vol. 28, p. 1. The 'hydrated halloysite' of S. B. Hendricks [M.A. 7–422], $H_4Al_2Si_2O_9.2H_2O$; the name halloysite being incorrectly limited to $H_4Al_2Si_2O_9$, which has been called metahalloysite [14th List, M.A., 6–181, 7–96]. Named after Prof. Kurd Endell (1887–) of the Technical High School, Berlin, incorrectly stated to be one of the discoverers of the material. Compare hydrohalloysite and hydrokaolin (15th List). [M.A. 8–342.]

Endiopside. H. H. Hess, 1941. Amer. Min., vol. 26, p. 519. A contraction of enstatite-diopside (W. Wahl, 1906; 5th List) for a clinopyroxene intermediate in composition between enstatite and diopside. [M.A. 8–234.]

Ferrithorite. I. E. Starik, L. L. Kravchenko, and O. S. Melikova, 1941. Compt. Rend. (Doklady) Acad. Sci. URSS, vol. 32, p. 254. A ferriferous (Fe_2O_3 12·02, FeO 3·55 %) variety of thorite from Kirghizia. The same as ferrothorite (11th List). [M.A. 8–302.]

Ferri-turquoise. E. E. Fairbanks, 1942. The Mineralogist, Portland, Oregon, vol. 10, p. 44. A variety of crystallized turquoise containing Fe_2O_3 5 %, from Lynch, Virginia. [M.A. 8–270.]

Ferroaugite. H. H. Hess, 1941. Amer. Min., vol. 26, pp. 517, 577, *passim*. A variety of augite rich in iron and distinct from pigeonite. [M.A. 8–234.]

Ferrohydrite. F. V. Chukhrov, 1936. [Colloids in the earth's crust (Russ.), Acad. Sci. USSR, 1936, p. 97.] O. M. Shubnikova, Trans. Inst. Geol. Sci., Acad. Sci. USSR, 1938 [i.e. 1940], no. 11 (Min. Geochem. Ser., no. 3), p. 6 (Феррогидрит, Ferrohydrite). Colloidal hydrous iron oxide occurring in the mud of salt lakes.

Ferrohypersthene. H. H. Hess and A. H. Phillips, 1940. Amer. Min., vol. 25, p. 285. Members of the enstatite-orthoferrosilite series between hypersthene (80–50 mol. % enstatite) and orthoferrosilite (12–0 % En). Compare iron-hypersthene (14th List). [M.A. 8–18.]

Ferrosalite. H. H. Hess, 1941. Amer. Min., vol. 26, p. 518. A variety of the clinopyroxene sahlite (= salite), rich in iron. [M.A. 8–234.]

Garnetoid. D. McConnell, 1941. Amer. Min., Program and Abstracts, December 1941, p. 18; Amer. Min., 1942, vol. 27, p. 452; Science, New York, 1943, vol. 97, p. 99. Substances (silicates, phosphates, &c.) which have structures similar to garnet, including hydrogarnet (q.v.), grossularoid (q.v.), plazolite, griphite, and berzeliite. [M.A. 8–343.]

Grossularoid. D. S. Belyankin and V. P. Petrov, 1941. Amer. Min., vol. 26, p. 450 (grossularoid). Group name for hibschite and plazolite, $3CaO.Al_2O_3.2SiO_2.2H_2O$, related to and associated with grossular, in which $2H_2O$ replaces SiO_2. Compare garnetoid and hydrogarnet. [M.A. 8–145.]

Hectorite. H. Strese and U. Hofmann, 1941. [Zeits. Anorg. Chem., vol. 247, p. 65.] U. Hofmann and A. Hausdorf, Zeits. Krist., 1942, vol. 104, pp. 266, 274 (Hectorit). Magnesium-bearing bentonite (montmorillonite) from Hector, California. Synonym of magnesium-bentonite (15th List). Named from the locality. Not the hectorite of S. H. Cox, 1882.

Helictite. [H. C. Hovey, 1882. Celebrated American caverns. Cincinnati, p. 186]; Funk and Wagnalls, Standard Dictionary, 1893–5. L. C. Huff, Journ. Geol. Chicago, 1940, vol. 48, p. 641. Crooked and branching formations of calcite or aragonite in limestone caverns, as distinct from straight stalactites and stalagmites. Named from ἕλιξ, a spiral, ἑλικτός, twisted. Compare anemolite (3rd List). [M.A. 8–202.]

Hochschildite. R. Herzenberg, 1942. Fac. Nac. Ingen. Univ. Oruro (Hochschildita). Hydrous lead stannate, $PbSn\dot{O}_3.5–6H_2O$, with some Fe and Si, as a yellow, earthy or scaly alteration product of teallite from Bolivia. Named after Dr. Mauricio Hochschild of Oruro. [M.A. 8–310.]

Hydrogarnet. E. P. Flint, H. F. McMurdie, and L. S. Wells, 1941. Journ. Research U.S. Bur. Standards, vol. 26, p. 13 (garnet-hydrogarnet series), p. 14 (hydrogarnets). Hydrous calcium aluminate ($3CaO.Al_2O_3.6H_2O$) and calcium ferrite ($3CaO.Fe_2O_3.6H_2O$), present in hydrated Portland cement. They are cubic and form a complete series of mixed crystals with grossular ($3CaO.Al_2O_3.3SiO_2$) and andradite ($3CaO.Fe_2O_3.3SiO_2$); plazolite ($3CaO.Al_2O_3.2SiO_2.2H_2O$; 9th List) is an intermediate member. Compare grossularoid and garnetoid. [M.A. 8–101, 146.]

Hydroloparite. V. I. Gerasimovsky, 1941. Synonym of metaloparite (q.v.).

Hydromontmorillonite. I. D. Sedletzky, 1940. Compt. Rend. (Doklady)

Acad. Sci. URSS, vol. 26, p. 241. An assumed intermediate stage in the passage from montmorillonite gel into montmorillonite. [M.A. 8–146.]

Hydrotungstite. P. F. Kerr and F. Young, 1940. Amer. Min., Program and Abstracts, December 1940, p. 9; Amer. Min., 1941, vol. 26, p. 199. Hydrous tungstic oxide, $WO_3.2H_2O$, similar in appearance but distinct from tungstite ($WO_3.H_2O$); from Oruro, Bolivia. [M.A. 8–52.]

Inderborite. G. S. Gorshkov, 1941. Compt. Rend. (Doklady) Acad. Sci. URSS, vol. 33, p. 255 (inderborite). Hydrous calcium and magnesium borate, $CaMgB_6O_{11}.11H_2O$, as monoclinic crystals from the Inder borate deposits, Kazakhstan. Named from the locality. *See* Metahydroboracite. [M.A. 8–341.]

Iron-skutterudite. R. J. Holmes, 1942. Science, New York, vol. 96, p. 92. Synonym of arsenoferrite (6th List), which gives the same X-ray pattern as skutterudite, $(Co,Fe)As_3$. [M.A. 8–380.]

Ishkulite. G. P. Barsanov, 1941. [Compt. Rend. (Doklady) Acad. Sci. URSS, vol. 31, p. 468], abstract in Amer. Min., 1942, vol. 27, p. 62. A variety of magnetite containing Cr_2O_3 11·19 % from lake Ishkul (Ишкуль), Ilmen Mts., southern Ural. Named from the locality. Not to be confused with ishkyldite (14th List). [M.A. 8–230.]

Kalsilite. F. A. Bannister, 1942. Min. Mag., vol. 26, p. 218. A. Holmes, ibid. p. 197; Geol. Mag., 1942, vol. 79, p. 226. A polymorphous form of potassium aluminosilicate, $KAlSiO_4$, hexagonal, but differing from kaliophilite in its X-ray pattern; occurs in potash-rich volcanic rocks from Uganda and Italy. Named from the chemical formula. [M.A. 8–318.]

Kurnakovite. M. N. Godlevsky, 1940. Compt. Rend. (Doklady) Acad. Sci. URSS, vol. 28, p. 638. Hydrous borate of magnesium, $2MgO.3B_2O_3.13H_2O$, as white granular (monoclinic) masses from Inder, Kazakhstan. Named after N. S. Kurnakov (Н.С. Курнаков), member of the U.S.S.R. Academy of Sciences. [M.A. 8–53.]

Lamprobolite. A. F. Rogers, 1940. Amer. Min., vol. 25, p. 826; ibid., 1941, vol. 26, p. 201. To replace the names 'basaltic hornblende', basaltine, and oxyhornblende (13th List) for the black lustrous crystals of hornblende rich in ferric iron, with high refringence and birefringence and strong pleochroism, of volcanic rocks (not only basalts). Named from *λαμπρός*, brilliant, and *βολίς*, a missile. [M.A. 8–51.]

Lok-batanite. S. A. Kovalevsky and A. T. Kochmarev, 1939. [Trudy Voprosam Neftyanoi Geol., 1939, p. 7; Khim. Referat. Zhur., 1940, no. 2, p. 21]; Chem. Abstr. (Amer. Chem. Soc.), 1942, vol. 36, p. 1874. An organic material from the Lok-Batan mud volcano.

Magnesium-montmorillonite. *See* Calcium-montmorillonite.

Manasseite. C. Frondel, 1940. Amer. Min., Program and Abstracts, December 1940, p. 6; Amer. Min., 1941, vol. 26, pp. 196, 310. Hydrous basic carbonate of magnesium and aluminium, $Al_3Mg_6(OH)_{16}CO_3.4H_2O$, as hexagonal scales dimorphous with the rhombohedral hydrotalcite. Named after Ernesto Manasse (1875–1922) of Firenze. [M.A. 8–51, 100.]

Manganese-sicklerite. P. Quensel, 1937. Geol. För. Förh. Stockholm, vol. 59, pp. 85, 96 (Mn-sicklerite). B. Mason, ibid., 1941, vol. 63, p. 139 (Mn-sicklerite). Amer. Min., 1937, vol. 22, p. 876 (manganese sicklerite). The original sicklerite derived from lithiophilite from California (6th List), as distinct from ferri-sicklerite derived from triphylite, from Varuträsk, Sweden (14th List), and containing manganese in excess of iron in the formula $(Li,Mn'',Fe''')PO_4$. [M.A. 6–486, 8–181.]

Mangan-hydroxyapatite. B. Mason, 1941. Geol. För. Förh. Stockholm, vol. 63, p. 279 (mangan-hydroxyapatite), p. 281 (Mn-hydroxyapatite). Hydroxyapatite (6th List) = hydroxylapatite (15th List) containing manganese (MnO 7·5 %), from Varuträsk, Sweden, $(Ca,Mn,Fe)_{10}(PO_4)_6(OH)_2$. [M.A. 8–311.]

Manganoxyapatite. B. Mason, 1941. Geol. För. Förh. Stockholm, vol. 63, p. 283 (manganoxyapatite), p. 383 (mangan-oxyapatite). Synonym of mangan-voelckerite (15th List). [M.A. 8–343.]

Mellorite. W. Hugill, 1939. [Bull. British Refractories Research Association, no. 49, p. 15]; Journ. Iron & Steel Inst., 1941, vol. 144 (1941, no. 2), p. 257 P; Trans. Brit. Ceramic Soc., 1942, vol. 41, p. 50. Silicate of ferric iron, calcium, &c., approaching garnet in composition, but with optical properties similar to those of an orthorhombic pyroxene. Formed by the action of basic slag on silica brick in a steel furnace. Named after Dr. Joseph William Mellor (1869–1938). [M.A. 8–279.]

Meta-alunogen. S. G. Gordon, 1942. Notulae Naturae, Acad. Nat. Sci. Philadelphia, no. 101, p. 6. Partly dehydrated alunogen (triclinic, $Al_2O_3.3SO_3.16H_2O$) yielding monoclinic $Al_2O_3.3SO_3.13\frac{1}{2}H_2O$. [M.A. 8–278.]

Metahydroboracite. N. Y. Ikornikova and M. N. Godlevsky, 1941. Compt. Rend. (Doklady) Acad. Sci. URSS, vol. 33, p. 257 (metahydroboracite). Hydrous calcium and magnesium borate, $CaMgB_6O_{11}.11H_2O$, like hydroboracite but with more water. Synonym of inderborite (q.v.). [M.A. 8–341.]

Metaloparite. V. I. Gerasimovsky, 1941. Compt. Rend. (Doklady) Acad. Sci. URSS, vol. 33, p. 61 (metaloparite), p. 63 (hydroloparite). Hydrous titano-niobate of rare-earths pseudomorphous after loparite (10th List), from which it differs in containing water in place of alkalis. [M.A. 8–341.]

Metaquartz. I. D. Sedletzky, 1940. Compt. Rend. (Doklady) Acad. Sci. URSS, vol. 26, p. 241. An assumed intermediate stage in the passage of amorphous silica gel to chalcedony. [M.A. 8–146.]

Nagelschmidtite. R. L. Barrett and W. J. McCaughey, 1941. Amer. Min., Program and Abstracts, December 1941, p. 4; Amer. Min., 1942, vol. 27, p. 689. Calcium silico-phosphate $Ca_7Si_2P_2O_{16}$ as optically biaxial grains in basic slag. Named after Dr. Gunther Nagelschmidt (1906–) of Harpenden, Hertfordshire, who described the material in 1937. [M.A. 7–147, 8–312.]

Naurodite. W. von Knebel, 1903. [Sitz.-Ber. Phys.-Med. Soc. Erlangen, vol. 35, p. 213]; abstract in Neues Jahrb. Min., 1907, vol. i, p. 229 (Naurodit). A blue hornblende differing from glaucophane, riebeckite, crossite, and arfvedsonite in optical extinction-angle and pleochroism, occurring in naurodite-schist at Naurod, NW. of Wiesbaden, Germany. Named from the locality.

Nifesite. H. Löfquist and C. Benedicks, 1940. Jernkontorets Ann. Stockholm, vol. 124, pp. 658, 682; K. Svenska Vetenskapsakad. Handl., 1941, ser. 3, vol. 19, no. 3, p. 43 (nifesit), p. 91 (nifesite). Nickel-iron sulphide consisting of a very fine-grained aggregate of bravoite and pentlandite, occurring in native iron and in pyrrhotine from Ovifak, Greenland. Named from the chemical symbols Ni, Fe, S. [M.A. 8-312.]

Nitrate-apatite. D. McConnell, 1938. Amer. Min., vol. 23, p. 8. 'The fact that a nitrate-apatite is not known does not weaken the hypothesis' that NO_3 groups may enter into the apatite structure.

Nordite. V. I. Gerasimovsky, 1941. Compt. Rend. (Doklady) Acad. Sci. URSS, vol. 32, p. 496. Silicate of rare-earths, Na, Sr, Ca, Mn, as pale-brown orthorhombic crystals from the Kola peninsula, Russia. So named because of its northern origin. [M.A. 8–279.]

Norilskite. O. E. Zvyagintzev, 1940. Compt. Rend. (Doklady) Acad. Sci. URSS, vol. 26, p. 790. An alloy of platinum with iron, nickel, copper, and palladium, found as grains and cubic crystals in alluvial deposits at Norilsk, northern Siberia. Named from the locality. [M.A. 8–53, 341.]

Ovulite. W. H. Bucher, 1918. Journ. Geol. Chicago, vol. 26, p. 593. L. Déverin, Schweiz. Min. Petr. Mitt., 1940, vol. 20, p. 102. An individual grain of oolite. From Latin ovulum, dim. of ovum. To replace the name ooide (Ooid, E. Kalkowsky, Zeits. Deutsch. Geol. Gesell., 1908, vol. 60, p. 72). The name ovulite was in use before 1848 for a fossil egg.

Parakalinepheline, Parakaliophilite. F. A. Bannister, 1942. Min. Mag., vol. 26, p. 221. Alternative, but rejected, names for kalsilite (q.v.).

Paucilithionite. A. N. Winchell, 1941. Amer. Min., Program and Abstracts, December 1941, p. 26; Amer. Min., 1942, vol. 27, pp. 117, 235. A hypothetical end member $K_2Li_3Al_5Si_6O_{20}F_4$ which, together with polylithionite and protolithionite, enters into the composition of lepidolite. Named from the Latin *paucus*, few, little.

Prokaolin. I. D. Sedletzky, 1940. Compt. Rend. (Doklady) Acad. Sci. URSS, vol. 26, p. 241. An assumed amorphous weathering product passing progressively into kaolinite. [M.A 8–146.]

Rankinite. C. E. Tilley, 1942. Min. Mag., vol. 26, p. 190. Tricalcium disilicate, $3CaO.2SiO_2$, as monoclinic crystals in the dolerite-chalk contact at Scawt Hill, Co. Antrim, and in blast-furnace slag. Named after George Atwater Rankin (1884–), of Washington, D.C., formerly of the Geophysical Laboratory. [M.A. 8–229, 244.]

Robertsonite. F. V. Chukhrov, 1936. [Colloids in the earth's crust (Russ.), Acad. Sci. USSR, 1936, p. 83.] O. M. Shubnikova, Trans. Inst. Geol. Sci., Acad. Sci. USSR, 1938 [i.e. 1940], no. 11 (Min. Geochem. Ser., no. 3), p. 3 (Робертсонит, Robertsonite). Colloidal zinc sulphide from Cherokee County, Kansas. Named after James D. Robertson, who described the material (Amer. Journ. Sci., 1890, ser. 3, vol. 40, p. 160). *See* Brunckite (15th List).

The same name, Robertsonite (E. Poitevin, Ann. Rep. Dept. Mines, Canada,

1931 for 1929–30, pp. 19, 20), was provisionally given to a mineral from British Columbia, at first thought to be a new species.

Royite. N. L. Sharma, 1940. Proc. Indian Acad. Sci., Sect. B, vol. 12, p. 215. Flattened prisms of quartz of blade-like habit occurring on joint-planes of sandstones and shales in the Jhaira coal-field. Named after Professor S. K. Roy, of the Indian School of Mines, Dhanbad. [M.A. 8–230.]

Saamite. M. I. Volkova and B. N. Melentiev, 1939. Compt. Rend. (Doklady) Acad. Sci. URSS, vol. 25, p. 122 (strontium apatite, saamite). A variety of apatite containing SrO (5·58–11·42 %) together with rare-earths (1·75–4·90 %) from the Kola peninsula, Russia. (Not the strontium-apatite of A. N. Winchell, 1927, 15th List.) [M.A. 8–52.]

Sampleite. C. S. Hurlbut, 1942. Amer. Min., vol. 27, p. 586. Hydrous phosphate and chloride of copper, calcium, and sodium, $NaCaCu_5(PO_4)_4Cl.5H_2O$, as blue crusts of minute orthorhombic crystals. Named after Mr. Mat Sample of Chuquicamata, Chile, where the mineral was found. [M.A. 8–309.]

Sarmientite. V. Angelelli and S. G. Gordon, 1941. Notulae Naturae, Acad. Nat. Sci. Philadelphia, no. 92; Science, New York, Sept. 26, 1941, vol. 94, suppl. p. 9. Hydrous arsenate and sulphate of ferric iron, $FeAsO_4.Fe(OH)SO_4.5H_2O$, as minute, lemon-yellow, monoclinic crystals, isomorphous with destinezite; in sulphate deposits from Argentina. Named after Domingo Faustino Sarmiento (1811–88), President of the Argentine Republic. [M.A. 8–187.]

Selenocosalite. O. H. Ödman, 1941. Årsbok Sveriges Geol. Undersökning, vol. 35, no. 1, p. 87. A variety of cosalite containing Se 6·43 %, $Pb_2Bi_2(S,Se)_5$, from Boliden, Sweden. [M.A. 8–311.]

Selenokobellite. O. H. Ödman, 1941. Årsbok Sveriges Geol. Undersökning, vol. 35, no. 1, p. 89. A variety of kobellite containing Se 4·78–5·74 %, $Pb_2(Bi,Sb)_2(S,Se)_5$, from Boliden, Sweden. [M.A. 8–311.]

Shilkinite. G. V. Merkulova, 1939. [Mém. Soc. Russe Min., vol. 68, p. 559.] Abstract in Amer. Min., 1943, vol. 28, p. 62. $K_2O.4Al_2O_3.8SiO_2.4H_2O$, as green, fibrous and fan-shaped aggregates in pegmatite from Shilka river, Transbaikal. Named from the locality.

Sjögrenite. C. Frondel, 1940. Amer. Min., Program and Abstracts, December 1940, p. 6 (Sjogrenite); Amer. Min., 1941, vol. 26, p. 196 (Sjogrenite), p. 205 (Sjögrenite). Hydrous basic carbonate of magnesium and ferric iron, $Fe_3Mg_6(OH)_{16}CO_3.4H_2O$, as hexagonal scales dimorphous with the rhombohedral pyroaurite. Named after Sten Anders Hjalmar Sjögren (1856–1922) of Stockholm. [M.A. 8–51, 99.]

Soda-heterosite. P. Quensel, 1937. Geol. För. Förh. Stockholm, vol. 59, p. 96 (Na-heterosite; 15th List, p. 645). G. L. English, Descriptive list of new minerals, 1939, p. 208 (Soda-heterosite). B. Mason, Geol. För. Förh. Stockholm, 1941, vol. 63, p. 161 (Na-heterosite). [M.A. 6–486, 7–313, 8–180.]

Soda-triphylite. V. Ziegler, 1914. Bull. South Dakota School of Mines, no. 10, p. 192 (soda-triphylite), p. 193 (soda triphylite). A mineral from Black Hills, South Dakota, analysed by W. P. Headden in 1891 and described by him as being near triphylite. It was later named arrojadite by D. Guimarães (1925,

11th List) and headdenite by P. Quensel (1937, 14th List). B. Mason (Geol. För. Förh. Stockholm, 1941, vol. 63, p. 132) points out that the earliest name soda-triphylite would suggest identity of the mineral with natrophilite, and he adopts the name arrojadite: soda-triphylite = headdenite = arrojadite. [M.A. 3–113, 6–486, 8–180.]

Sodium-illite. F. A. Bannister, 1943. Min. Mag., vol. 26, p. 304. Synonym of brammallite (q.v.).

Sodium-jarosite. F. V. Chukhrov, P. E. Arest-Yakubovich, and N. A. Kozlova, 1940. Compt. Rend. (Doklady) Acad. Sci. URSS, vol. 28, p. 829 (sodium-jarosites). Synonym of natrojarosite (3rd List). [M.A. 8–142.]

Sphærodialogite. A. W. Woodland, 1939. Quart. Journ. Geol. Soc. London, vol. 95, p. 34. Rhodochrosite (= dialogite) as minute granular globules in Welsh manganese ore. [M.A. 7–437.]

Spherite. W. H. Bucher, 1918. Journ. Geol. Chicago, vol. 26, p. 593. Spherical grains, including ovulite (q.v.) with concentric structure and spherulite with radial structure.

Sterrettite. E. S. Larsen, 3rd, and A. Montgomery, 1940. Amer. Min., vol. 25, p. 513. Hydrous basic aluminium phosphate, $Al_6(PO_4)_4(OH)_6.5H_2O$, as minute, colourless, orthorhombic crystals in variscite nodules from Fairfield, Utah. Named after Dr. Douglas Bovard Sterrett. Shown by F. A. Bannister (Min. Mag. 26–131) to be identical with eggonite. [M.A. 8–3.]

Stibarsen. P. E. Wretblad, 1941. Geol. För. Förh. Stockholm, vol. 63, pp. 38, 46 (Stibarsen, Allemontite II). Allemontite from Varuträsk, Sweden, of the composition AsSb. Allemontite I consists of an eutectoid mixture of this with the Sb phase, and allemontite III with the As phase. [M.A. 8–98.]

Tantalohatchettolite. J. E. de Villiers, 1941. Amer. Min., vol. 26, p. 505. Microlite containing much uranium. [M.A. 8–188.]

Tantalo-rutile. A. B. Edwards, 1940., Proc. Austral. Inst. Mining & Metall., no. 120, p. 735 (tantalo-rutile). To replace the name ilmenorutile for rutile containing tantalum and niobium. [Min. Mag. 15–85; M.A. 8–307.]

Theophrastite. A. Breithaupt, 1849. Die Paragenesis der Mineralien, p. 216 (Theophrastit). Synonym of Nickelwismuthglanz (F. von Kobell, 1835) = grünauite (J. Nicol, 1849) = saynite (F. von Kobell, 1853). Named after Theophrastus (*c.* 372–286 B.C.).

Titanclinohumite. F. Machatschki, 1930. Centralblatt Min., Abt. A, 1930, p. 194 (Titanklinohumit). F. de Quervain, Schweiz. Min. Petr. Mitt., 1938, vol. 18, p. 591. Synonym of titanolivine (A. Damour, 1879), titanhydroclinohumite (9th List), and Klinolivin (12th List). [M.A. 8–85.]

Titan-låvenite. E. I. Kutukova, 1940. [Trans. Inst. Geol. Sci., Acad. Sci. USSR, no. 31, Min. Geochem. Ser., no. 6, p. 23.] Abstract in Amer. Min., 1941, vol. 26, p. 135 (Titan-lovenite). A variety of låvenite containing TiO_2 11·30 %, from the Kola peninsula.

Titanvesuvianite. L. L. Shilin, 1940. Compt. Rend. (Doklady) Acad. Sci. URSS, vol. 29, p. 325 (titanvesuvianite). V. S. Myasnikov, ibid., 1940, vol. 28,

p. 446 (titaniferous vesuvianite). A variety of idocrase containing 4·59 % TiO_2. [M.A. 8–100, 101.]

Treanorite. A. O. Woodford, J. D. Laudermilk, and E. H. Bailey, 1940. Bull. Geol. Soc. Amer., vol. 51, p. 1965. A. O. Woodford, R. A. Crippen, and K. B. Garner, Amer. Min., 1941, vol. 26, p. 375. An undescribed mineral similar to allanite, from Crestmore, California. [M.A. 8–145.]

Tungomelane. P. F. Kerr, 1940. Bull. Geol. Soc. Amer., vol. 51, p. 1379. Tungsten-bearing psilomelane (WO_3 1·54–2·78 %) from Golconda, Nevada. [M.A. 8–310.]

Whitlockite. C. Frondel, 1940. Amer. Min., Program and Abstracts, December 1940, p. 7; Amer. Min., 1941, vol. 26, pp. 145, 197. Calcium phosphate, $Ca_3(PO_4)_2$, with small amounts of Mg and Fe, as colourless rhombohedra from North Groton, New Hampshire. Named after Mr. Herbert Percy Whitlock (1868–) of the American Museum of Natural History, New York. [M.A. 8–52, 99, 232.]

Yttroparisite. E. I. Nefedov, 1941. Compt. Rend. (Doklady) Acad. Sci. URSS, 1941, vol. 32, p. 363. A variety of parisite containing much yttria, from Adun-Chalon, Transbaikalia. [M.A. 8–279.]

SYSTEMATIC CLASSIFICATION OF NEW MINERALS[1]

Elements

Stibarsen, AsSb.
Norilskite, Pt, Fe, Ni, Pd alloy.

Sulphides, etc.

Robertsonite, colloidal ZnS.
Nifesite, Ni–Fe sulphide.
Cobalt-löllingite = safflorite.
Selenocosalite, $Pb_2Bi_2(S,Se)_5$.
Selenokobellite, $Pb_3(Bi,Sb)_2(S,Se)_5$.

Haloids

Cadwaladerite, $Al(OH)_2Cl.4H_2O$.

Oxides

Tantalo-rutile = ilmenorutile.
Cryptomelane, var. psilomelane.
Tungomelane, var. psilomelane.

Hydroxides

Ferrohydrite, colloidal.
Hydrotungstite, $WO_3.2H_2O$.

Carbonates

Bemmelenite, colloidal $FeCO_3$.
Barbertonite, $Cr_3Mg_6(OH)_{16}CO_3.4H_2O$.
Manasseite, $Al_3Mg_6(OH)_{16}CO_3.4H_2O$.
Sjögrenite, $Fe_3Mg_6(OH)_{16}CO_3.4H_2O$.
Yttroparisite, var. parisite.

Sulphates

Calingastite, Zn-Cu-melanterite.
Meta-alunogen, $Al_2O_3.3SO_3.13\frac{1}{2}H_2O$.
Sodium-jarosite = natrojarosite.

Iodates

Bellingerite, $3Cu(IO_3)_2.2H_2O$.

Borates

Kurnakovite, $2MgO.3B_2O_3.13H_2O$.
Inderborite = Metahydroboracite } $CaMgB_6O_{11}.11H_2O$.

Phosphates, etc.

Whitlockite, $Ca_3(PO_4)_2$.
Mangan-hydroxyapatite, $(Ca,Mn,Fe)_{10}(PO_4)_6(OH)_2$.
Manganoxyapatite, $3(Ca,Mn)(PO_4)_2.CaO$.
Saamite, Sr-apatite.
Manganese-sicklerite, $(Li,Mn'',Fe''')PO_4$.
Ferri-turquoise, var. turquoise.
Clinobarrandite, $(Al,Fe)PO_4.2H_2O$.
Sterrettite, $Al_6(PO_4)_4(OH)_6.5H_2O$.
Bradleyite, $Na_3PO_4.MgCO_3$.
Sampleite, $NaCaCu_5(PO_4)_4Cl.5H_2O$.
Sarmientite, $FeAsO_4.Fe(OH)SO_4.5H_2O$.
Nagelschmidtite, $Ca_7Si_2P_2O_{16}$.

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

NIOBATES, ETC.

Columbomicrolite, var. microlite.
Tantalohatchettolite, var. microlite.
Metaloparite, hyd. loparite.
Djalmaite, hyd. tantalate U.

STANNATES

Hochschildite, $PbSnO_3.5$–$6H_2O$.

SILICATES

Barium-sanidine.
Ferrohypersthene.
Ferroaugite.
Ferrosalite.
Abkhazite, var. amphibole-asbestos.
Lamprobolite, basaltic hornblende.

Kalsilite, $KAlSiO_4$.
Rankinite, $3CaO.2SiO_2$.
Garnetoid, Grossularoid, Hydrogarnet } $3CaO.Al_2O_3.2SiO_2.2H_2O$, &c.
Mellorite, sil. Fe‴,Ca.
Nordite, sil. rare-earths, &c.
Paucilithionite, $K_2Li_3Al_5Si_6O_{23}F_4$.
Brammallite, sodium-illite.
Shilkinite, $K_2O.4Al_2O_3.8SiO_2.4H_2O$.
Ablykite, $RO.2R_2O_3.5SiO_2.6H_2O$.
Donbassite, $H_{14}Al_6Si_5O_{29}$.
Endellite = halloysite.
Hectorite = magnesium-bentonite.
Calcium-montmorillonite.
Elkonite, colloidal clay.