We are pleased to present the first update to the Encyclopedia of Mineral Names (The Canadian Mineralogist, Special Publication 1). The entries listed below largely consist of new species of minerals that have appeared in the literature since mid-1997, the date of publication of the Encyclopedia. A copy of this update will be supplied free of charge on demand to those who already own the Encyclopedia, and will be included with all copies of the first edition of the Encyclopedia sold henceforth.

The information presented below is presented in five separate lists. First is the listing of new mineral species discovered since the Encyclopedia appeared two years ago. The second list shows the new species defined as a result of decisions summarized in the IMA report on micas (Can. Mineral. 36, 905, 1998). Thirdly, we present the listing of new species defined as a result of decisions summarized in the IMA report on zeolite-group minerals (Can. Mineral. 35, 1571, 1997). Fourthly, we present a short list of mineral species discovered long ago that were omitted from the first edition of the Encyclopedia. Lastly, we present minerals already in the Encyclopedia that have been discredited as valid species since 1997, or that were misspelled.

We acknowledge the assistance of many readers who took the trouble to offer corrections, not only to the names of mineral species, but also to names of localities. All these corrections have been made on the master listing, and will be reflected in the next edition.

**Mineral Species Described Since the Publication of the Encyclopedia**

**Akimotoite**

(Mg,Fe)SiO$_3$, trig., $R3$.

A member of the ilmenite group. Dimorphic relationship with enstatite and clinoenstatite.

Named after Syun-iti Akimoto (b. 1925), of the Institute of Geophysics and Solid State Physics, University of Tokyo, specialist in high-pressure research, especially on phase relationships in the system (Mg,Fe)$_2$SiO$_4$ at mantle conditions. Found in fragments within veins of shock-induced melt in the Tenham chondritic meteorite, which fell in 1879 in South Gregory, Queensland, Australia.


**Ancylite-(La)**

Sr(La,Ce)(CO$_3$)$_2$OH•H$_2$O, orth., $Pmcn$.

Forms a series with ancylite-(Ce).

Named as the La analogue of ancylite-(Ce). Marchenko Peak, next to Mount Kukisvumschorr, Khibina alkaline complex, Kola Peninsula, northwestern Russia.


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Androsite-(La)

$$(\text{Mn, Ca})(\text{La, Ce, Ca, Nd})\text{AlMn}^3\text{+Mn}^{2+}(\text{SiO}_4)(\text{Si}_2\text{O}_7)\text{O(OH)}$$, mon., $P2_1/m$.

Forms a series with piemontite.


**Andyrobertsite**

$$\text{K Cd Cu}_5(\text{AsO}_4)_4[\text{As(OH)}_2\text{O}_2](\text{H}_2\text{O})_2$$, mon., $P2_1/m$.

Forms a series with calcio-andyrobertsite.


**Averievite**

$$\text{Cu}^{2+}\text{Cu}_2(\text{VO}_4)_2\cdot n\text{MX}$$, trig., $P3$.

In the formula, MX refers to particles dependent on the environment of formation, and can be CuCl, CuCl$_2$, or (K,Rb,Cs)Cl.


**Baksanite**

$$\text{Bi}_6(\text{Te}_2\text{S}_3)$$, trig., $P3m1$.

Named after the discovery locality. Found in garnet–magnetite skarn, Tyrngaaz deposit, Baksan River valley, northern Caucasus, Russia.


**Bamfordite**

$$\text{Fe}^{3+}\text{Mo}_2\text{O}_6(\text{OH})_3\cdot \text{H}_2\text{O}$$, tric., $P1$.

Named after its discovery locality. Found at the Bamford Hill W–Mo–Bi deposits near Cairns, northern Queensland, Australia, and formed by the oxidation of molybdenite.


**Barquillite**

$$\text{Cu}_2(\text{Cd, Fe})\text{GeS}_4$$, tet., $I42m$.

The Cd-dominant analogue of briartite. A member of the stannite group.

Named after Barquilla, a village near the discovery locality. Found in altered impure limestone in the Fuentes Villanas mine, Barquilla Sn–Ge–Cd–Cu–Fe vein-type deposit, southwestern Salamanca, Spain.

Benauite

\[(\text{Sr,Ba})(\text{Fe}^{3+},\text{Al})\text{[(PO}_4\text{),(SO}_4\text{)]_2(\text{OH,H}_2\text{O})_6,\text{ trig., } R\overline{3}m}\]

A member of the crandallite group.

Named after its discovery locality, at Benau, in the vicinity of the Clara mine, Oberwolfach, Schwarzwald, Germany.


Berezanskite

\[\text{KLi}_3\text{Ti}_2\text{Si}_12\text{O}_{30},\text{ hex., P6/mmc (?).}\]

Structurally related to brannockite.

Named after Anatolyi Vladimirovich Berezanskii (b. 1948), who mapped the geology of remote areas of the Turkestan–Alai range, in Tajikistan. Found in a block of peralkaline pegmatite in the moraine of the Dara-i-Pioz glacier, in the Garm region, Pamir Mountains, Tajikistan.


Blatonite

\[\text{UO}_2\text{CO}_3\cdot \text{H}_2\text{O, hex. (?).}\]

Named after Norbert Blaton (b. 1945), of the Universiteit van Leuven, Belgium, crystallographer specializing in the structure of uranium minerals. Found by Patrick Haynes in seams of gypsum in siltstone of the Shinarump Formation, Jomac uranium mine, Brown’s Rim, San Juan County, Utah, U.S.A.


Boralsilite

\[\text{Al}_16\text{B}_6\text{Si}_2\text{O}_{37},\text{ mon., C2/m.}\]

The name reflects its composition, with boron, aluminum and silicon as the only cations. Found in a tourmaline – quartz intergrowth in granitic pegmatite cutting granulite-facies metapelitic rocks, Larsemann Hills, Stornes Peninsula, Prydz Bay, eastern Antarctica, and in the Rogaland intrusive complex, southwestern Norway.


Brendelite

\[(\text{Bi}^{3+},\text{Pb})_2(\text{Fe}^{3+},\text{Fe}^{2+})\text{O}_2(\text{OH})(\text{PO}_4),\text{ mon., C2/m.}\]

Named after Christian Friedrich Brendel (1776-1861) in recognition of his development and application of mechanized mining technology. Found in dumps of the ancient (16th century) Gülđener Falk silver mine near Schneeberg, Saxony, Germany.


Calcio-andyrobertsite

\[\text{KCaCu}_5(\text{AsO}_4)_4[\text{As(OH)}_2\text{O}_2](\text{H}_2\text{O})_2,\text{ mon., P2}_1\text{/m.}\]

Forms a series with andyrobertsite.

The name recalls its composition and relationship to andyrobertsite. Found at the Tsumeb mine, Namibia.

Caoxite
Ca(H2O)3(C2O4), tric., P1.

The name reflects its composition, a calcium oxalate. It also is an acronym of Centennial Anniversary of X rays; the mineral was studied during 1995, the 100th anniversary of Röntgen’s discovery of X rays, an event that allowed the development of structural mineralogy. Found in the Cerchiara mine, near Faggiona, Val di Vara, La Spezia, eastern Liguria, Italy.


Caresite-3T
(Fe2+,Mg)4Al2(OH)12CO3•3H2O, trig., P3121 or P3212.
Related to charmarite-2H, charmarite-3T, quintinite-2H and quintinite-3T.

Named after Stephen (b. 1909) and Janet (b. 1921) Cares, amateur mineralogists from Sudbury, Massachusetts, who discovered the species. Found in the Poudrette quarry, Mont Saint-Hilaire, Rouville County, Quebec, as well as in the Corporation quarry, Montreal, Quebec, Canada.


Chadwickite
(UO2)H(AsO3)3, tetr., (?).

Named after Sir James Chadwick (1891-1974), physicist at the Cavendish Laboratory, University of Cambridge, U.K., 1935 Nobel Prize winner for his discovery of the neutron. Found in granite in dump material at the Sophia mine, Wittichen, central Black Forest, Germany.


Changchengite
IrBiS, cub., P213.
The sulfur-dominant analogue of mayingite, but with a different space-group.

Named after the discovery locality, near the Great Wall (Changcheng in Chinese). Found in chromite orebodies in dunite and in placer deposits at a branch of the Luanhe River, about 200 km northeast of Beijing, Hebei Province, People’s Republic of China.


Changoite
Na2Zn(SO4)2•4H2O, mon., P21/a.
The zinc-dominant analogue of blödite and nickelblödite.

Named after the changos, the early former inhabitants of northern Chile. Found as a product of oxidation in an old mining area about 2 km west of Sierra Gorda, northeast of Antofagasta, northern Chile.


Charmarite-2H
Mn2+4Al2(OH)12CO3•3H2O, hex., P6322.
Found with charmarite-3T, trig., P3121 or P3212.
Related to caresite-2H, quintinite-2H and quintinite-3T.
Named after Charles H. (b. 1917) and Marcelle (b. 1918) Weber, amateur mineralogists from Guilford, Connecticut, who discovered the species. Found in the Demix quarry, Mont Saint-Hilaire, Rouville County, Quebec, Canada.


**Chlorartinite**

\[ \text{Mg}_2(\text{CO}_3)\text{ClO}_\text{H} \cdot 3\text{H}_2\text{O}, \text{ trig.}, R\overline{3}c (?) \]

The name alludes to the chlorine content and the similarity to artinite. Found in volcanic exhalations at the third cone of the North Breach, Main Tolbachik fissure eruption of 1975-1976, Kamchatka Peninsula, Russia.


**Chloromenite**

\[ \text{Cu}_6\text{O}_2(\text{SeO}_3)_4\text{Cl}_6, \text{ mon.}, I\text{2}/\text{m} \]

The name comes from chloros, green, and mene, moon, alluding to its color and selenium content (mene is a contraction of selene). Found in a fumarole in the Northern Breach of the Great Fissure Tolbachik eruption, Kamchatka Peninsula, Russia.


**Chrisstanleyite**

\[ \text{Ag}_2\text{Pd}_3\text{Se}_4, \text{ mon.}, P2_1/m \text{ or } P2 \]

Named after Christopher John Stanley (b. 1954), Natural History Museum, London, U.K., specialist of ore mineralogy. Found in a calcite vein in Devonian limestone at Hope’s Nose, Torquay, Devon, U.K.


**Chromphyllite**

\[ \text{KCr}_2\square\text{AlSi}_3\text{O}_{10}(\text{OH},\text{F})_2, \text{ mon.}, C2/c. \]

Forms a solid solution with muscovite.

The name alludes to its chromium content and, from Gk. phyllon, leaf, to its layered structure and its perfect {001} cleavage. Found in quartzite, Kaber pit, Pokhabikha River valley, Sludyanka district, southern Lake Baikal region, Siberia, Russia.


**Clinocervantite**

\[ \beta-\text{Sb}_3^+\text{Sb}_{5^+}\text{O}_4, \text{ mon.}, C2/c. \]

Dimorphic relationship with cervantite.

The name reflects its symmetry and relationship to cervantite. Found in cavities at the Cetine di Cotorniano mine, Siena, central Tuscany, Italy.

Coparsite

\[ \text{Cu}_4\text{O}_2[(\text{As},\text{V})\text{O}_4]\text{Cl}, \text{ orth., Pbcm.} \]

The name recalls the mineral's constituents: copper and arsenic. Found in the Yadovitaya (= poisonous) fumarole in the North Breach of the Main Tolbachik fissure eruption of 1975-1976, Kamchatka Peninsula, Russia.


Coskrenite

\[ (\text{Ce},\text{Nd},\text{La})_2(\text{SO}_4)_2(\text{C}_2\text{O}_4)_4\cdot8\text{H}_2\text{O}, \text{ tric., P1.} \]

Named after T. Dennis Coskren (b. 1942), geochemist and mineralogist, who discovered the mineral. Found in the soil and on the ceiling of a rock shelter, a product of weathering of pyritic phyllite, Alum Cave Bluff, Great Smoky Mountains, Tennessee, U.S.A.


Cuboargyrte

\[ \text{AgSbS}_2, \text{ cub., Fm3m.} \]

Dimorphic relationship with miargyrte. The name alludes to the crystal system and polymorphic relationship with miargyrte. Found in a hydrothermal quartz-arsenopyrite assemblage at Baberast, near Haslach, central Black Forest, Germany.


Damiaoite

\[ \text{PtIn}_2, \text{ cub., Fm3m.} \]

Named after the discovery locality. Found in a Pt-bearing vein in garnet- and amphibole-bearing pyroxenite near the village of Damiao and the Yixun River, about 270 km north of Beijing, People's Republic of China.


Dessauite

\[ (\text{Sr},\text{Pb})(\text{Y},\text{U})(\text{Ti},\text{Fe}^{3+})_2\text{O}_{38}, \text{ trig., R3.} \]

A member of the crichtonite group.

Named after Gabor Dessau (1907–1983), Professor of Ore Mineralogy, University of Pisa, Italy. Found in calcite veins at the Buca della Vena mine, Apuan Alps, Tuscany, Italy.


Dusmatovite

\[ \text{K}(\text{K},\text{Na},\square)(\text{Mn}^{2+},\text{Y},\text{Zr})_2(\text{Zn},\text{Li})_3\text{Si}_{12}\text{O}_{30}, \text{ hex., P6/mcc.} \]

A member of the osmulite group.

Named after Vyacheslav Dzhuraevich Dusmatov (b. 1936), mineralogist, Institute of Geology, Dushanbe, Tajikistan, for his geological and mineralogical studies on the Dara-i-Pioz alkaline complex, the discovery locality. Found in the moraine of the Dara-Pioz glacier, Alai Range, Tien Shan, Tajikistan.

Edgarite
\[ \text{FeNb}_3\text{S}_6, \text{hex.}, P6_322 (\bar{1}) \]

The mineral is named after Alan D. Edgar (1935–1998), Professor of Petrology, University of Western Ontario, London, Ontario, Canada, in recognition of his contributions to the study of alkaline rocks and synthetic equivalents. Khibina alkaline complex, Kola Peninsula, northwestern Russia; coexists with Ti-enriched pyrrhotite in a fenitized xenolith in nepheline syenite.


Esperanzeite
\[ \text{Na}_{2}\text{Ca}_{2}\text{Al}_2(\text{As}^{5+}\text{O}_4)_2\text{F}_4(\text{OH})\cdot2\text{H}_2\text{O}, \text{mon.}, P2_1/m. \]

Named after the discovery locality. Found as a secondary phase on mineralized rhyolite at the La Esperanza mine, Zaragoza mining district, near Madero, State of Durango, Mexico.


Feinglosite
\[ \text{Pb}_2(\text{Zn,Fe}^{2+})[\text{As,S}][\text{O}_6]\text{O}_10\text{O}_1(\text{OH},\text{F})_2, \text{mon.}, C2/m. \]

The Zn-dominant analogue of arsenbrackebuschite.

Named after Mark N. Feinglos (b. 1948), Professor at the Duke University Medical Center, Durham, North Carolina, U.S.A., who discovered the mineral. Tsumeb mine, Tsumeb, Namibia.


Ferrokinoshitalite
\[ \text{Ba}(\text{Fe}^{2+},\text{Mg})_3(\text{Si}_2\text{Al}_2)\text{O}_{10}(\text{OH},\text{F})_2, \text{mon.}, C2/m. \]

The polytype in the type material is 1M. A member of the Brittle Mica group.

The name reflects the mineral's iron content and relationship to kinoshitalite. Found in metamorphosed exhalative sedimentary rocks (banded iron-formations) enclosing the massive Pb-Zn-Cu-Ag sulfide orebodies at Broken Hill mine, near Aggeneys, northern Cape Province, South Africa.


Ferronordite-(Ce)
\[ \text{Na}_3\text{SrCeFe}^{2+}\text{Si}_6\text{O}_{17}, \text{orth.}, P\text{cca.} \]

The ferrous-iron analogue of nordite-(Ce) and manganonordite-(Ce).

The name reflects the composition and similarity to nordite-(Ce). Found in ussingite-bearing pegmatites, Chinglusuai River and Karnasurt mine, Mount Karnasurt, Lovozero alkaline complex, Kola Peninsula, Russia.


Ferrotitanowodginite
\[ (\text{Fe}^{2+},\text{Mn}^{2+})(\text{Ti},\text{Sn}^{4+},\text{Ta},\text{Fe}^{3+})(\text{Ta},\text{Nb})_2\text{O}_8, \text{mon.}, C2/c. \]

A member of the wodginite group.

The name reflects its composition and relationship to wodginite. Found in the southern quarry, San Elias granitic pegmatite, Sierra de la Estanzuela, departamento de Chacabuco, San Luis province, Argentina.

Fettelite

\[ \text{Ag}_2\text{HgAs}_5\text{S}_{20}, \text{ trig.}, \text{P312} (\dagger). \]

Named after M. Fettel (b. 1943), geologist, who first collected the mineral. Found in hydrothermal veins cutting a gabbro–diorite complex, in the Nieder-Beerbach mine, near Darmstadt, Odenwald, Germany.


Fluorocaphite

\[ \text{Ca}((\text{Ca},\text{Sr},\text{Ce})_3(\text{PO}_4)_3\text{F}, \text{ hex.}, \text{P6}_3. \]

Isostructural with fluorapatite; the Ca-dominant analogue of strontium-apatite.

The name reflects the principal elements in its chemical formula. Found in a hyperaegpaitic pegmatite in ijolite-urtite at Mount Koashva, Khibina alkaline complex, Kola Peninsula, Russia.


Fluorthal6nite-(Y)

\[ \text{Y}_3\text{Si}_3\text{O}_{10}\text{F}, \text{ mon.}, \text{P2}_1/\text{n}. \]

The fluorine-dominant analogue of thalérite-(Y).

The name reflects the relationship with thalérite-(Y). Found in amazonitic-microcline-bearing granitic pegmatites at Ploskaya Mountain, western Keivy, Kola Peninsula, Russia.


Galileiite

\[ (\text{Na,K})_2(\text{Fe},\text{Mn},\text{Cr})_3(\text{PO}_4)_6, \text{ trig.}, \text{R3}. \]

Named after astronomer Galileo Galilei (1564–1642). Found in troilite nodules in the Grant IIIB and four other IIIAB iron meteorites. The Grant meteorite was found (1929) in the Zuni Mountains, Cibola County, New Mexico, U.S.A.


Georgeericksenite

\[ \text{Na}_6\text{CaMg}(\text{IO}_3)_6(\text{CrO}_4)_2(\text{H}_2\text{O})_{12}, \text{ mon.}, \text{C2/c}. \]

Named after George Edward Ericksen (1920–1996), of Reston, Virginia (Am. Mineral. 82, 1046), noted economic geologist with the U.S. Geological Survey, who documented the nitrate deposits of Chile. Oficina Chacabuco, Chile, where it coexists with halite, nitratine and niter.


Gerenite-(Y)

\[ (\text{Ca},\text{Na})_2(\text{Y},\text{REE})_3\text{Si}_6\text{O}_{18} \cdot 2\text{H}_2\text{O}, \text{ tric.}, \text{P1}. \]

Named after Richard Geren (b. 1917), of Oromocto, New Brunswick, Canada, who was instrumental, as executive vice-president of the Iron Ore Company of Canada, in initiating the exploration program that led to the discovery of the Strange Lake deposit. Found in a pegmatite–aplite lens, Strange Lake peralkaline granitic complex, Quebec–Labrador boundary, Canada.

**Gordaite**

NaZn₄(SO₄)(OH)₆Cl•6H₂O, trig., P₃.

Named after its discovery locality. Found in oxidized vein material in an old mining area about 2 km west of Sierra Gorda, Antofagasta, Chile.


**Graeserite**

Fe₃⁺₄Ti₃As³⁺O₁₃(OH), mon., A2/m.

A member of the derbylite group.

Named after Stefan Graeser (b. 1935), of the Mineralogical-Petrographic Institute, University of Basel, Switzerland, involved throughout his career in research on oxides and sulfosalts of arsenic in the Binntal region of the Monte Leone nappe. Found in veins cutting paragneiss at Lärcheltini, Binntal region, Monte Leone nappe, Western Alps, Switzerland.


**Grattarolaite**

Fe₃O₃(PO₄), trig., R₃m.

Named after Giuseppe Grattarola (1844–1907), professor of mineralogy, University of Florence, Italy, specialist in the mineralogy of Elba. Found in earthy nodules in a brick-like matrix, Santa Barbara lignite mine, Upper Arno River valley, 30 km southeast of Florence, Italy.


**Grumioplucite**

HgBi₂S₄, mon., C2/m.

Named after the amateur mineralogical organization Gruppo Mineralogico e Paleontologico Lucchese, members of which, Luigi Pierrotti, Ugo Quilici and Moreno Romani, provided the specimens for study. With this name, the authors recall the key role of amateur mineralogists the world over. Found in the Levigiani mercury mine in the Apuan Alps, Tuscany, Italy.


**Gwihabaite**

(NH₄,K)NO₃, orth., Pbnm.

Named after its discovery locality. Found in the Gwihaba Cave, in which the mineral formed by bacterial decay of bat guano, Kalahari basin, 280 km west of Maun, northwestern Botswana. The spelling of the mineral name is modified to aid pronunciation.


**Haggertyite**

(Ba,K)[Ti₅Fe²⁺₄Fe³⁺₂Mg]O₁₉, hex., P6₃/mmc.

Isostructural with hawthorneite and yimengite. A member of the magneto-plumbite group.

Named after Stephen E. Haggerty (b. 1938), of the University of Massachusetts, Amherst, Massachusetts, U.S.A., in recognition of his important studies of titanate minerals in the Earth’s mantle, and
of oxide minerals in general. Found in the Prairie Creek lamproite, Crater of Diamonds State Park, near Murfreesboro, Pike County, Arkansas.


Hechtsbergite
\[ \text{Bi}_2\text{O}(\text{OH})(\text{VO}_4) \], mon., \text{P}2_1\text{c}. \\
The vanadium-dominant analogue of atelestite and, probably, smrkovecite.

Named after its discovery locality. Found in cavities in gneiss in the Hechtsberg quarry, near Hausach, Black Forest, Germany.


Häärneite
\[ (\text{Ca},\text{Mn}^{2+},\text{Na})_2(\text{Zr},\text{Mn}^{3+})_5(\text{Sb}^{5+},\text{Ti},\text{Fe}^{3+})_2\text{O}_{16} \], tet., \text{I}4_1\text{acd}. \\
Isostructural with calzirite.

Named after Urban Häärne (1641–1724), pioneer in studies of the geology of Sweden. Found in the Långban Fe–Mn deposit, Filipstad district, Värmland, Sweden. The häärneite resulted from metasomatic reactions affecting a felsic volcanic rock, followed by high-grade metamorphism in an environment of high \( f(\text{O}_2) \) and silica undersaturation.


Hydroxocuprite
\[ [(\text{Cu},\text{Al},\text{OH})_2][(\text{SO}_4)_{\text{n}/2}(\text{H}_2\text{O})_{\text{n}/2}] \], with \( \text{x} < 0.67 \) and \( \text{n} > 3\text{z}/2 \), trig., \text{R}3\text{m} (?). \\
Member of the Hydroxalkate group. The copper analogue of glaucocerinite and carrubulite.

Named as the higher hydrated analogue of woodwardite. Found at the St. Briccius Cu, Ag, Sn mine, Königswalde, near Annaberg, Saxony, Germany.


Ilinskite
\[ \text{NaCu}_5\text{O}_2(\text{SeO}_3)_2\text{Cl}_3 \], orth., \text{P}b\text{nnm}. \\
Named after Georgii Alekseevich Ilinskii (1927–1996), mineralogist at the University of St. Petersburg, specialist in the physical properties of minerals. Found as a product of fumarole activity at the Tolbachik Main fissure eruption, Kamchatka Peninsula, Russia.


Ilissite
\[ \text{HgS} \text{Ag}(\text{Cl},\text{Br}) \], hex., \text{P}6_2 (?). \\
Named after Antoine Iliss, mineral collector. Cap Garonne Pb–Cu mine, Var, France.


Isolueshite
\[ (\text{Na},\text{La},\text{Ca})(\text{Nb},\text{Ti})\text{O}_3 \], cub., \text{P}m\text{3}m. \\
The name reflects its isometric habit, optical isotropism and compositional similarity to its orthorhombic polymorph, lueshite. Found in an altered pegmatite vein at the Kukisvumchorr apatite mine, southern Khibina alkaline complex, Kola Peninsula, Russia.

**Jedwabite**

\[ \text{Fe}_7(\text{Ta},\text{Nb})_3, \text{hex.}, \text{P}6_{3}\text{mmc} (\#19). \]

The mineral is named after Jacques Jedwab, Université Libre de Bruxelles, Belgique, in recognition of his meticulous investigations of the mineralogy of placers and of carbides in natural environments. Discovered in platiniferous placers at Solo’eva Mountain, Nizhii Tagil ultramafic massif, Middle Urals, Russia, in a collection made by P. Walther at the beginning of the 20th century, in association with niobocarbide and a tantalum carbide.


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**Jentschite**

\[ \text{TlPbAs}_{2}\text{SbS}_{6}, \text{mon.}, \text{P}2_{1}/\text{n}. \]

Named after Franz Jentsch (1868–1908), head of the Binn syndicate that worked the sulfosalts deposit at the Lengenbach quarry, the discovery locality, Lengenbach, Binntal, Switzerland.


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**Juabite**

\[ \text{Cu}_{5}(\text{Te}^{6+}\text{O}_{4})_2(\text{As}^{5+}\text{O}_{4})_2\cdot3\text{H}_2\text{O}, \text{tric.}, \text{P}1 \text{ or } \text{P}. \]

Named after its discovery locality. Found in the Centennial Eureka mine, Juab County, Utah, U.S.A.


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**Juonniite**

\[ \text{CaMgSc}((\text{PO}_{4})_2(\text{OH})\cdot4\text{H}_2\text{O}, \text{orth.}, \text{Pbca}. \]

Isotstructural with segelerite and with overite.

Named after the Juonni River, which drains the area near the Kovdor deposit. Found in calcite-dolomite carbonatite veins that cross-cut rocks and ores of the Kovdor ultramafic alkaline complex, Kola Peninsula, Russia.


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**Kalifersite**

\[ (\text{K},\text{Na})_{5}\text{Fe}^{3+}_{7}\text{Si}_{20}\text{O}_{50}(\text{OH})_{6}\cdot12\text{H}_2\text{O}, \text{tric.}, \text{P}1. \]

The name alludes to the chemical composition (*kalium, ferrum, silicium*). Found in a hydrothermally altered agpaitic pegmatite at Mt. Kukisvumchorr, Khibina alkaline complex, Kola Peninsula, Russia.


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**Kastningite**

\[ (\text{Mn}^{2+},\text{Fe}^{2+},\text{Mg})\text{Al}_2((\text{PO}_4)_2(\text{OH})_2\cdot8\text{H}_2\text{O}, \text{tric.}, \text{P}1. \]

Dimorphic relationship with mangangordonite, and the Al-dominant analogue of stewartite.

Named after Jürgen Kastning (b. 1932), from Reinbeck bei Hamburg, Germany, amateur mineralogist specializing in phosphate minerals, who discovered the mineral. Found in the aplite zone of a zoned P-bearing granitic pegmatite exploited for feldspar for the ceramics industry, Silbergube quarry, Waidhaus, Upper Palatinate (Oberpfälzer Wald), Bavaria, Germany.

Kenhsuite
\[ \gamma - \text{HgS}_2\text{Cl}_2, \text{ orth.}, \text{ Ammm} (\text{?)}. \]
Polymorphic relationship with corderoite andlavrentievite.
Named after Kenneth Jinghwa Hsu (b. 1929), Professor Emeritus, Swiss Federal Institute of Technology (E.T.H.), Zurich, Switzerland, in recognition of numerous contributions to many fields in the earth sciences. McDermitt mercury mine, Humboldt County, Nevada, U.S.A.

Khaidarkanite
\[ \text{Cu}_4\text{Al}_3(\text{OH})_{14}\text{F}_3\cdot 2\text{H}_2\text{O}, \text{ mon.}, \text{ C2/m}. \]
Named after the discovery locality. Found in the oxidation zone of the Khaidarkan antimony–mercury deposit, Kyrgyzstan.

Khomyakovite
\[ \text{Na}_{12}\text{Sr}_3\text{Ca}_6\text{Fe}_3\text{Zr}_3\text{W(Si}_{25}\text{O}_{73})\text{(O,OH,Cl)}_2, \text{ trig.}, \text{ R3m}. \]
Forms a solid solution with manganokhomyakovite. A member of the eudialyte group.
Named after Alexander Petrovich Khomyakov (b. 1933), of the Institute of Mineralogy, Geochemistry and Crystal Chemistry of Rare Elements, Moscow, Russia, for his extensive contributions to the mineralogy and geochemistry of alkaline rocks, in particular those of hyperagpaitic character. Author of Mineralogy of Hyperagpaitic Alkaline Rocks (1995). Found in a miarolitic cavity in nepheline syenite in the Poudrette quarry, Mont Saint-Hilaire, Rouville County, Quebec, Canada.

Koragoite
\[ (\text{Mn}^{2+},\text{Mn}^{3+},\text{Fe}^{2+})_3(\text{Nb,Ta,Ti})_3(\text{Nb,Mn})_2(\text{W,Ta})_2\text{O}_{20}, \text{ mon.}, \text{ P2}1. \]
Named after Aleksei Aleksandrovich Korago (1942–1993), geologist who investigated the formation of river pearls in the Arkhangel'sk district of Russia, and the origin of amber. Found in granitic pegmatites in the Vez-Dara River valley, Shakhdara Range, in the southwestern Pamir Mountains, Tajikistan.

Korobitsynite
\[ \text{Na}_{3-\delta}(\text{Ti,Nb})_2[\text{Si}_4\text{O}_{12}](\text{OH},\text{O})_2\cdot 3-4\text{H}_2\text{O}, \text{ orth.}, \text{ Pham}. \]
The Ti-dominant analog of nenadkevichite.
Named after Mikhail Fedorovich Korobitsyn (1928–1996), amateur mineralogist and collector who made significant contributions to mineralogical investigations of the Lovozero alkaline complex. Found in hydrothermally affected agpaitic rocks at Alluaiv and Kamasurt Mountains, Lovozero alkaline complex, Kola Peninsula, Russia.
Kuzelite
\[
[Ca_4Al_2(OH)_{12}][(SO_4\cdot6H_2O)], \text{trig., } R3(?)
\]
Related to hydrocalumite.


Lesukite
\[
Al_s(OH)_sCl\cdot2H_2O, \text{cub., } Im\bar{3}m.
\]

Named after Grigorii Ivanovich Lesuke (1935–1995), technical worker in the Department of Crystallography, University of St. Petersburg, Russia. Product of fumarolic activity associated with the Tobalchik Main Fissure eruption, Kamchatka Peninsula, Russia.


Lukechangite-(Ce)
\[
Na_3(\text{Ce,La,Nd})_2(CO_3)_4F, \text{hex., } P6_3/mmc.
\]


Magnesiofoitite
\[
\square(Mg_2Al)Al_6(Si_8O_{18})(BO_3)_3(OH)_4, \text{trig., } R3m.
\]

A member of the tourmaline group. The Mg analogue of foitite.

The name recalls its composition and relationship to foitite. Found in a hydrothermally altered quartz-phenocryst-bearing porphyry from Kyonosawa, Mitomi-mura, Higashi-Yamanashi-gun, Yamanashiken Prefecture, Honshu, Japan.


Mahnertite
\[
(Na,Ca,K)Cu_3(AsO_4)_2Cl\cdot5H_2O, \text{tet., } P4_2_2_21.
\]

Named after Volker Mahnert, director of the Muséum d'Histoire Naturelle, Geneva, Switzerland. Found in a zone of secondary alteration, Cap Garonne mine, Var, France.


Manganokhomyakovite
\[
Na_12Sr_3Ca_3Mn_3Zr_3W(Si_5O_{17})(O,OH,H_2O)_3(OH,Cl)_2, \text{trig., } R3m.
\]
Forms a solid solution with khomyakovite. A member of the eudialyte group.

The name reflects the composition and similarity to khomyakovite. Found in a miarolitic cavity in nepheline syenite in the Poudrette quarry, Mont Saint-Hilaire, Rouville County, Quebec, Canada.

Manganonordite-(Ce)
Na₃SrCeMn²⁺Si₆O₁₇, orth., Pcca.
The manganese analogue of nordite-(Ce) and ferronordite-(Ce).
The name reflects the composition and similarity to nordite-(Ce). Found in ussingite-bearing pegmatites, Mount Karnasurt and Karnasurt mine, Lovozero alkaline complex, Kola Peninsula, Russia.

Mereheadite
Pb₂O(OH)Cl, mon., C2/c.
Named after its discovery locality. Found in veins of Mn and Fe oxide minerals that cut dolomitic limestone at Merehead quarry, Cranmore, Somerset, U.K.

Mitryaeavaite
Al₁₀[(PO₄)₈(SO₄)₁₃]₃⁺AlF₃•30H₂O, tric., P1 or P.
Named after Nonna Mikhailovna Mitryaeva (b. 1920), long associated with the Satpaev Institute of Geological Sciences in Almaty, Kazakhstan, distinguished contributor to the mineralogy of Kazakhstan. Discovered in carbonaceous concretions in weathered black shale, northwestern Karatau Range and the Zhabagly Mountains, in the southern part of Kazakhstan.

Mutinaite
Na₃Ca₂[Al₁₁Si₈O₃OH]•60H₂O, orth., Pnma.
A member of the zeolite group.
Named after Mutina, the ancient Latin name for Modena, Italy, a major site of zeolite research. Found in cavities in Jurassic Ferrar basalt, Mount Adamson, Northern Victoria Land, Antarctica.

Nepskoeite
Mg₆Cl(OH)₇•6H₂O, orth., Pcmn (?).
Named after its discovery locality. Found in Cambrian salt beds at the Nepskoe salt deposit, eastern Siberia, Russia.

Nickelphosphide
(Ni,Fe)₃P, tet., I₄.
The nickel-dominant analog of schreibersite.
The name reflects its composition. Found in the Butler iron meteorite, Bates County, Missouri, U.S.A., which fell in 1874, and a number of other iron meteorites.
Niedermayrite
\[ \text{Cu}_4\text{Cd}(\text{SO}_4)_2(\text{OH})_6 \cdot 4\text{H}_2\text{O}, \text{ mon., } P2_1/m. \]
Named after Gerhard Niedermayr (b. 1941), mineralogist and geologist, Naturhistorisches Museum, Vienna, Austria, compiler of the regional mineralogy of the eastern Alps. Found in brecciated marble in an abandoned adit, Lavrion mining district, Attica Peninsula, Greece.

Niobocarbide
\[ (\text{Nb, Ta})\text{C}, \text{ cub., } Fm3m. \]
Forms a solid solution with tantalcarbide.
The name alludes to its composition. The mineral was discovered in platiniferous placers in the Nizhnetagilsky District in the Middle Urals, Russia, in a collection made by P. Walther at the beginning of the 20th century.

Normandite
\[ \text{NaCa}(\text{Mn}^{2+}, \text{Fe}^{3+})_2(\text{Ti}, \text{Nb}, \text{Zr})_2\text{O}_7\text{OF}, \text{ mon., } P2_1/a. \]
The Ti-analogue of lavenite.
Named after Charles Normand (b. 1963), of Montreal, Quebec, Canada, who discovered the mineral. Found in miarolitic cavities in nepheline syenite at the Poudrette quarry, Mont Saint-Hilaire, Rouville County, Quebec, Canada.

Oenite
\[ \text{CoSbAs}, \text{ orth., } (?). \]
Named after Ing Soen Oen (1928–1996), Professor of Petrology, Mineralogy and Ore Geology at the Vrije Universiteit, Amsterdam, The Netherlands, in recognition of his contributions to the mineralogy and geology of ore deposits (Am. Mineral. 83, 1136). Found in felsic metatuffaceous rocks in Cu-Co skarns associated with the Tunaberg polymetallic sulfide deposits, Bergslagen metallogenic province, south-central Sweden.

Okayamalite
\[ \text{Ca}_2\text{B}_2\text{SiO}_7, \text{ tet., } P421m. \]
The boron analogue of gehlenite.
Named after the discovery locality. Found in a vein-like skarn developed in the Fuka limestone mine, Bicchu-cho, Okayama Prefecture, Japan.

Oaskellite
\[ \text{Na}_3\text{Ca}_3\text{Mn}_3\text{Fe}^{2+}_2\text{Zr}_2\text{Nb}(\text{Si}_{12}\text{O}_{37})(\text{O, OH, H}_2\text{O})_3(\text{OH, Cl})_2, \text{ trig., } R3. \]
A member of the eudialyte group.
Named after John Johnston O'Neill (1886–1966), geologist with the Geological Survey of Canada, Ottawa, and later, Professor of geology, Dean of Science and Dean of Engineering at McGill University, Montreal, Canada, the first to describe the geology of Mont Saint-Hilaire and to recognize the
occurrence there of alkaline accessory minerals like eudialyte. Found in nepheline syenite, Poudrette quarry, Mont Saint-Hilaire, Rouville County, Quebec, Canada.


**Parascorodite**

FeAsO$_4$·2H$_2$O, hex. (?)

From Gk. para, near, and scorodite, with which it has a dimorphic relationship. Formed as a product of dissolution of arsenopyrite on medieval dumps of the Kaňkov silver mine in the Kutná Hora ore district, central Bohemia, Czech Republic.


**Parasibirskite**

Ca$_3$B$_2$O$_5$·H$_2$O, mon., P2$_1$/m.

From Gk. para, near, and sibirskite, with which it has a dimorphic relationship. Found in a vein in gehlenite-spurrite skarns, Fuka limestone mine, Okayama Prefecture, Japan.


**Philolithite**

Pb$_{12}$O$_6$Mn$_4$(Mg,Mn)$_4$(Mg,Mg)$_4$(SO$_4$)$_3$Cl$_4$(OH)$_{12}$, tet., P4$_2$/mm.

Named in honor of the Friends of Mineralogy, from the Gk. philos, loving, and lithos, stone. A late-stage fissure mineral in a skarn assemblage, Långban mine, Filipstad District, Värmland, Sweden.


**Phosphoellenbergerite**

Mg$_{84}$(PO$_4$)$_6$(PO$_3$OH,CO$_3$)$_2$(OH)$_6$, hex., P6$_3$/m.

Named as the phosphate end-member of a series with ellenbergerite. Found in very high-pressure assemblages in the Dora–Maira massif, near San Giocomo, Vallone di Gilba, Val Varaita, in the Western Alps, Piemonte, Italy.


**Phosphogartrellite**

Mg$_{84}$(PO$_4$)$_6$(PO$_3$OH,CO$_3$)$_2$(OH)$_6$, hex., P6$_3$/m.

A member of the tsunacorite group.

Named after its composition and relationship to gartrellite. Found as a product of oxidation on veins of silicified barite at Hohenstein, near Reichenbach (type locality) and Odenwald, Germany.


**Phosphovanadylite**

(Ba,Ca,K$_4$)$_4$(V$_{4+}$,Al)$_4$P$_2$(O,OH)$_6$·12H$_2$O, cub., I43m.

The name reflects its composition, in particular the presence of vanadyl groups and phosphorus. Found in the Meade Peak Member of the Phosphoria Formation (Permian) at the Enoch Valley mine, Soda Springs, Idaho, in phosphatic organic-matter-rich mudstone.

**Polkanovite**
\[ \text{Rh}_{12}\text{As}_{7}, \text{hex., P6}_3/m. \]
Named after Yuri Aleksandrovich Polkanov (b. 1935), Academician, Institute of Mineral Resources, Academy of Technical Sciences of Ukraine, known for his studies of the mineralogy and ore deposits of the Crimean Peninsula, and particularly of placers. Found in a placer deposit in the upper reaches of the Mias River, southern Urals, Russia.


**Potassic pargasite**
\[ (\text{K},\text{Na})\text{Ca}_2(\text{Mg,Fe}^{2+},\text{Al,Fe}^{3+})_5(\text{Si,Al})_6\text{O}_{22}(\text{OH,F})_2, \text{mon., C2/m.} \]
A member of the amphibole group.
The name reflects its bulk composition, a potassium-dominant pargasite. Found at Pargas, Turku-Pori, Finland, with calcite in a metasomatic or skarn-type deposit.


**Pretulite**
\[ \text{ScPO}_4, \text{tet., I4}_1/\text{amd.} \]
The Sc-dominant analogue of xenotime.


**Protoferro-anthophyllite**
\[ (\text{Fe,Mn})_2(\text{Fe,Mn})_3\text{Si}_8\text{O}_{22}(\text{OH})_2, \text{orth., Pnmm.} \]
A member of the amphibole group.
The name alludes to its structural relationship to the proto-amphiboles and its chemical relationship to anthophyllite. Found in granitic pegmatites, Cheyenne Mountain area, El Paso County, Colorado, U.S.A. and Hirukawa Village, Gifu Prefecture, Japan.


**Protomangano-ferro-anthophyllite**
\[ (\text{Mn,Fe})_2(\text{Mn,Fe})_3\text{Si}_8\text{O}_{22}(\text{OH})_2, \text{orth., Pnmm.} \]
A member of the amphibole group.
The name alludes to its structural relationship to the proto-amphiboles and its chemical relationship to anthophyllite. Found in bedded Mn deposits at Yokoneyama, Tochigi Prefecture, Japan, and also in a pegmatite at Suishoyame, Fukushima Prefecture, Japan.

**Pseudosinhalite**

(Mg,Fe$^{2+}$)$_2$Al$_3$B$_2$O$_3$(OH), mon., $P_2_1/c$.

From Gk. *pseudos*, false, and *sinhalite*; the name alludes to the optical, chemical and structural similarity to *sinhalite*. Found as a product of replacement of sinhalite in metasomatized marble in the Tayozhnoye Fe-B skarn, Aldan Shield, southern Sakha – Yakutia Republic, Russian Federation.


**Pushcharovskite**

Cu(AsO$_3$OH)$\cdot$H$_2$O, tric., $P_1$ (?)  
Polyomorphous relationship with *geminite*.

Named after Dmitry Yurievich Pushcharovsky (b. 1944), crystallographer, Moscow State University, Russia. Cap Garonne mine, Var, France.


**Quadratite**

Ag(Cd,Pb)(As,Sb)S$_3$, tet., $14/\text{amd}$.

The name is derived from the conspicuous quadratic shape of the mineral. Found in small vugs in dolomitic rock, Lengenbach, Binntal, Switzerland.


**Quintinite-2H**

(Mg,Fe$^{2+}$)$_4$Al$_2$(OH)$_2$CO$_3$$\cdot$3H$_2$O, hex., $P_6_32$.  
Related to *caresite-2H*, *charmarite-2H* and *charmarite-3T*.


**Quintinite-3T**

(Mg,Fe$^{2+}$)$_4$Al$_2$(OH)$_2$CO$_3$$\cdot$3H$_2$O, trig., $P_3_112$ or $P3_212$.  
Related to *caresite-2H*, *charmarite-2H* and *charmarite-3T*.

See *quintinite-2H*. Found in the Demix quarry, Mont Saint-Hilaire, Quebec, Canada.


**Rambergite**

$\gamma$-MnS, hex., $P6_3mc$.  
Dimorphic relationship with *alabandite*.

Named after Hans Ramberg (1917-1998), Professor of Mineralogy and Petrology at the University of Chicago, then at the University of Uppsala, Sweden. Specialist in the thermodynamics and kinetics of mineral-forming reactions in metamorphic terranes, author of *The Origin of Metamorphic and Metasomatic Rocks* (1952). Found in anoxic laminated sediments rich in organic matter, Gotland Deep, Baltic Sea, off the coast of Sweden. Also found in a skarn in the Garpenberg area, Dalarna, Sweden.

Rhodarsenide

\((\text{Rh},\text{Pd})_2\text{As}\), orth., \textit{Pnma} (?).

The name alludes to its rhodium and arsenic content. Found in a placer deposit in the Srebrnica River, near Veluce, in central Serbia.


Rodolicoite

\(\text{Fe}^{3+}\text{PO}_4\), trig., \textit{P}3\textit{1}2\textit{1}.

Isostructural with \textit{berlinite}; polymorphic relationship with \textit{heterosite}.

Named after Francesco Rodolico (1905–1988), professor of mineralogy, University of Florence, Italy, specialist of the history of geology and of building and ornamental materials, author of \textit{Le pietre delle città d'Italia}. Found in earthy nodules in a brick-like matrix, Santa Barbara lignite mine, Upper Arno River valley, 30 km southeast of Florence, Italy.


Rossmanite

\(\square(\text{LiAl}_2)\text{Al}_6(\text{Si}_6\text{O}_{18})(\text{BO}_3)_3(\text{OH})_4\), trig., \textit{R}3\textit{m}.

Named after George R. Rossman (b. 1945), Professor of Mineralogy, California Institute of Technology, Pasadena, California, U.S.A., in recognition of his work on the spectroscopy of tourmaline-group minerals, and his wide-ranging contributions in the application of spectroscopic techniques to minerals. Found in the Hradisko quarry, in the Rožná lepidolite subtype of granitic pegmatite, northeastern part of the Strážek Moldanubicum, Czech Republic.


Rubicline

\((\text{Rb},\text{K})\text{AlSi}_3\text{O}_8\), tric., \textit{P}1 (?).

The name reflects its compositional and structural attributes as the rubidium analogue of \textit{microcline}. Found in a veinlet of rubidian microcline cutting pollucite in a rare-element-bearing granitic pegmatite at San Piero in Campo, Elba, Italy.


Saddlebackite

\(\text{Pb}_2\text{Bi}_2\text{Te}_2\text{S}_3\), hex., (?).

Named after the discovery locality. Found in a lateritic orebody at the Boddington gold deposit, in the Saddleback greenstone belt (Archean), near Mount Saddleback, approximately 100 km southeast of Perth, Western Australia, Australia.


Scandiobabingtonite

\(\text{Ca}_2(\text{Fe}^{2+},\text{Mn})\text{ScSi}_5\text{O}_{14}(\text{OH})\), tric., \textit{P}1 (?).

Forms a solid-solution series with \textit{babingtonite}.

The name reflects its composition, as the scandium analogue of \textit{babingtonite}. Found in a miarolitic cavity in the Montecatini quarry in the Baveno granite, near Novara, Piedmont, Italy.

Schäferite
\[ \text{Na}_2\text{Ca}_2\text{Mg}_2(\text{VO}_4)_3, \text{cub.}, \text{Ia}3d. \]
A member of the garnet group.

Named after Helmut Schäfer (b. 1931), amateur mineralogist from Mayen-Kürenberg, specialist in the minerals of the Eifel volcanic area, who discovered the mineral. Found in a silicate-rich xenolith in leucite tephrite lava, Bellberg volcano, near Mayen, Laacher See district, Eifel, Germany.


Seidite-\((\text{Ce})\)
\[ \text{Na}_2\text{SrCeTiSi}_8\text{O}_{22}\text{F} \cdot 5\text{H}_2\text{O}, \text{mon.}, \text{C}2/\text{c}. \]
Named after Seidozero, literally Lake Seid, the central lake in the Lovozero complex. Found in the Jubileinaya hyperagpaitic pegmatite at Mount Karnasurt, Lovozero alkaline complex, Kola Peninsula, Russia.


Shibkovite
\[ \text{K}((\text{Ca},\text{Mn},\text{Na})_2(\text{K},\text{Na})_2(\text{Zn})_2\text{Si}_12\text{O}_{30}, \text{hex.}, \text{P}6/\text{mcc}. \]
A member of the milarite group.

Named after two prominent Russian geologists, Viktor Sergeevitch Shibkov (1926-1992) and Nikolai Viktorovitch Shibkov (1951-1991), who both spent their professional life working on the geology of Soviet Asia. Found in a boulder of peralkaline granitic pegmatite in moraine, Dara-i-Pioz glacier, Garmsky District, northern Tajikistan.


Sidpietersite
\[ \text{Pb}^2+4(\text{S}_4\text{O}_3\text{S}_2^-)\text{O}_2(\text{OH})_2, \text{tric.}, \text{P}1. \]
Named after Sidney Pieters (b. 1920), of Windhoek, Namibia [Mineral. Rec. 8(3), 54], for his outstanding contributions to Namibian mineralogy. Found at the Tsumeb mine, Tsumeb, Namibia.


Simmonsite
\[ \text{Na}_2\text{LiAlF}_6, \text{mon.}, \text{P}2_1(\tilde{1}). \]
Named after William B. “Skip” Simmons (b. 1943), University of New Orleans, New Orleans, Louisiana, U.S.A., specialist in the mineralogy and petrology of granitic pegmatites, especially those of Colorado and of NYF type. Found in a late-stage breccia pipe that cuts the Zapot amazonitic microcline – topaz – zinnwaldite granitic pegmatite in the Gillis Range, Mineral County, Nevada, U.S.A.

Sodic-ferri-clinoferroholmquistite

(Na,□)Li₂(Fe²⁺,Mg)₃Fe³⁺₂Si₈O₂₂(OH)₂, mon., C2/m.

A member of the amphibole group.

The name reflects its composition and its relationship to clinoferroholmquistite.

Found in episyenite in the Arroyo de la Yedra Valley, in the eastern part of the Pedriza Massif, Sierra de Guadarrama, Spanish Central System, Spain.


Sorosite

Cu(Sn,Sb), hex., P6₃/mmc (?).

Named after George Soros (b. 1930), of New York, financier, author and philanthropist, in recognition of his important support to scientific activity in the former Soviet Union, among other countries, and his efforts to promote open societies throughout the world. Found in the Baimka gold–platinum-group mineral placer deposit, in the River Bolshoy Anyuy, which drains Alaskan-type complexes, western Chukotka, Russian Far East.


Staněkite

Fe³⁺(Mn,Fe²⁺,Mg)(PO₄)O, mon., P2₁/a.

Named after Josef Staněk (1928–1995), Professor of Mineralogy, Masarykov University, Brno, Czech Republic, a specialist in phosphate mineralogy. Clementine II granitic pegmatite, Okatjimukuju farm, Karibib, Namibia.


Stoppaniite

(Fe₆Al₃Mg)₄[Be₆Si₁₃O₃₆]•(H₂O)₂(Na,□)₂, hex., P6/mmc.

A member of the beryl group.


Strontiomelane

SrMn⁴⁺₆Mn³⁺₄O₁₆, mon., P2₁/n.

A member of the cryptomelane group.

The name reflects the presence of strontium and the black color, melanos in Greek. Found at the Praborna manganese mine, near Saint-Marcel, Aosta Valley, Italian Alps, in a post-Alpine stage of veinining.


Sudovikovite

PtSe₂, trig., P₃m₁.

Named after N.G. Sudovikov (1903-1966), noted Russian petrologist. Found in metasomatic assemblage at the Srednaya Palma U-V deposit 30 km north of Kizhy Island, in southern Karelia, Russia.

**Tantalcarbide**

$(Ta,Nb)C$, cub., $Fm3m$.

Forms a solid solution with niobocarbide.

The name reflects its composition: tantalum and carbon. The mineral was discovered in platiniferous placers in the Nizhnetagilskiy District in the Middle Urals, Russia, in a collection made by P. Walther at the beginning of the 20th century.


**Tatyanaite**

$(Pt,Pd,Cu)_3Cu_3Sn_4$, orth., $Pmmm$ (?).

The platinum-dominant analogue of taimyrite, with which it forms a solid solution.

Named after Tatyana L. Evstigneeva (1945), of the Russian Academy of Sciences, IGEM, Moscow, Russia, investigator of platinum-group minerals and various ore minerals of the Noril'sk complex, Russia. Found in massive sulfide ore from the Oktyabr'sky deposit, Noril'sk complex, Siberia, Russia.


**Ternesite**

$Ca_5(SiO_4)_2SO_4$, orth., $Pnma$.

Named after Bernd Ternes (b. 1955), of the Rhineland – Palatinate Department of Agriculture, Mayen, Germany, specialist of the mineralogy of the Eifel area and discoverer of the mineral. Found in Ca-rich xenoliths in the Quaternary leucite tephrite lava of the Ettringer Bellberg volcano, Eifel district, Germany.


**Ternovite**

$(Mg,Ca)\text{Nb}_4\text{O}_{11}\cdot n\text{H}_2\text{O}$ ($8 < n < 10$), mon., $P2/m$ (?).

The Mg-dominant analogue of hochelagaite and francoite.

Named after Vladimir Ivanovich Ternovoi (1928–1980), economic geologist, a pioneer in studies of the Kovdor deposit. Found in zones of hydrothermal alteration in dolomite–calcite carbonatite, Vuorijarvi alkaline ultrabasic complex, northern Karelia, Kola Peninsula, Russia.


**Terranovaite**

$Na\text{CaAl}_{3}\text{Si}_{17}\text{O}_{46}\cdot n\text{H}_2\text{O}$, orth., $Cmcm$.

A member of the zeolite group.

Named after its discovery locality. Found near the Italian Antarctic Station at Terranova Bay, Antarctica.

Thomasclarkite-(Y)
\( \text{Na(Y,REE)(HCO}_3\text{)(OH)}_4 \cdot 4\text{H}_2\text{O} \), mon., P2.

Named after Thomas Henry Clark (1893-1996), McGill University, Montreal, Quebec, Canada, noted for his studies of the geology of the St. Lawrence Lowlands. Coauthor of *The Geological Evolution of North America* (1960). Occurs as a late hydrothermal phase in alkaline pegmatite dikes in nepheline syenite, Poudrette quarry, Mont Saint-Hilaire, Quebec, Canada.


Tschöörtnerite
\( \text{Ca}_4(\text{K,Ca, Sr, Ba})_3(\text{OH})_6[\text{Al}_4\text{Si}_4\text{O}_{16}] \cdot n\text{H}_2\text{O}, n \geq 20, \text{cub., Fm} \text{3m.} \)

A member of the *zeolite* group.

Named after Jochen Tschört (b. 1941), pharmacist and mineral collector from Cologne, Germany, who discovered the mineral. Found in Ca-rich xenolith in leucite tephrite lava at the Bellberg volcano, near Mayen, Laacher See area, Eifel, Germany.


Turkestanite
\( \text{Th(Ca,Na)}_2(\text{Kno }-\text{Ca})_8\text{Si}_8\text{O}_{20} \cdot n\text{H}_2\text{O}, \text{tet., P} \text{4/mcc.} \)

Isostructural with *steacyite*.

Named after the discovery locality, along the Turkestan Ridge. Found in the albited exocontact zone at the Djelisu and Dara-Pioz alkaline complexes, located 40 km apart north and south, respectively, of the Turkestan – Tajikistan border.


Tschugaruite
\( \text{Pb}_4\text{As}_4\text{S}_7 \), orth., Pm\( \text{2 or Pnnm.} \)

Named after the discovery locality. Found in a veinlet of barite at the Yunosawa mine in the Minami-Tsugar-gun provincial unit of the Aomori Prefecture in northern Japan.


Utahite
\( \text{Cu}_5\text{Zn}_3(\text{Te}^6\text{O}_4\text{)}_4(\text{OH})_8 \cdot 7\text{H}_2\text{O}, \text{tric., P} \text{l or P} \text{I.} \)

Named after its discovery locality. Found as a product of oxidation at the Centennial Eureka mine, Tintic District, Juab County, Utah, U.S.A.


Velikite
\( \text{Cu}_2\text{HgSnS}_4 \), tet., \( \bar{1} \text{42m.} \)

Mercurian member of the *stannite* group. Structurally related to *késterite*.

Named after Aleksandr Semenovich Velikiy (1913–1970), investigator of ore deposits in Soviet central Asia. Found in veins cutting black schist and limestone in the Khaidarkan Hg deposit, about 60 km south of Fergana, Kirgizia.

Vergasovaite

\[ \text{Cu}_3\text{O}(\text{Mo,S})\text{O}_4\text{SO}_4, \text{ orth., Pnma.} \]

Named after Lidiya Pavlovna Vergasova (b. 1941), of the Institute of Volcanology, Russian Academy of Sciences, Petropavlovsk, Russia, who contributed significantly to the mineralogy of volcanic exhalites of Kamchatka, and of the volcano Tolbachik, in particular. Found in a fumarole along the North Breach of the Main Tolbachik fissure eruption, Kamchatka Peninsula, Russia.


Vuoriyarvite

\[ (\text{K,Na})_2(\text{Nb,Ti})_2\text{Si}_4\text{O}_{12}(\text{O,OH})_2\cdot4\text{H}_2\text{O}, \text{ mon., Cm.} \]

The name reflects the discovery locality, Lake Vuoriyarvi and the Vuoriyarvi complex. Found in veins of dolomite-calcite carbonatite that cut pyroxenites of the Vuoriyarvi alkali-ultramafic complex, Kola Peninsula, Russia. The mineral formed by the hydrothermal alteration of pyrochlore.


Walfordite

\[ (\text{Fe}^{3+},\text{Te}^{6+})\text{Te}^{4+}\text{O}_8, \text{ cub., I}2_1/a3. \]

The Fe\(^{3+}\) analogue of winstanleyite.

Named after Phillip Walford (b. 1945), of Toronto, Ontario, Canada, Vice-President and Chief Geologist of LAC Minerals, Ltd., at the time that mining company held the mining rights to the discovery locality. Found in brecciated silicified rhyolitic and dacitic pyroclastic rocks, Wendy open pit of the Tambo mine, El Indio - Tambo mining property, 160 km east of La Serena, Coquimbo Province, northern Chile.


Wilhelmkleinite

\[ \text{ZnFe}^{3+}_2(\text{AsO}_4)_2(\text{OH})_2, \text{ mon., P}2_1/n. \]

Named after Wilhelm Klein (1889-1939), manager of the OMEG mines in Namibia from 1916 until 1939, who made the first systematic collection of minerals from the Tsumeb mine. Found in the third oxidation zone, Tsumeb mine, Namibia.


Wiluite

\[ \text{Ca}_{19}(\text{Al,Mg,Fe,Ti})_{13}(\text{B,Al,□})_3\text{Si}_{18}\text{O}_{68}(\text{O,OH})_{10}, \text{ tet., P}4/\text{mmc.} \]

Isostructural with vesuvianite.

Named after the discovery locality. Found with grossular and serpentine-group minerals in a serpentinitized skarn, Wilui River, Yakutia, Russia.

Wooldridgeite

\[ \text{Na}_2\text{CaCu}^{2+}_2(\text{P}_2\text{O}_7)_2(\text{H}_2\text{O})_{10}, \text{ orth.}, \text{ Fdd2}. \]


Xenotime-(Yb)

\[ \text{YbPO}_4, \text{ tet.}, I4_{1}/amd. \]

Forms a series with xenotime-(Y).

Named after its composition and relationship with xenotime-(Y). Found in the saccharoidal albite unit of a granitic pegmatite of the Shatford Lake pegmatite group, near the margin of the Lac du Bonnet batholith, southeastern Manitoba.


Yixunite

\[ \text{Pt}_3\text{In}, \text{ cub.}, \text{ Pm3m}. \]

Named after the discovery locality. Found in a Pt-bearing vein in contact-metamorphosed garnet-amphibole-bearing pyroxenite near the village of Damiao and the Yixun River, about 270 km north of Beijing, People’s Republic of China.


Yvonite

\[ \text{Ca(AsO}_2\text{OH})(\text{H}_2\text{O})_2, \text{ tric.}, \text{ P1}. \]

Structurally related to geminite and fluckite.

Named after Klaus Yvon (b. 1943), Professor of Crystallography at the University of Geneva, Switzerland. Found as a supergene mineral at the Salsigne gold mine, Montagne Noire, Aude, France.


Zincohögbomite

\[ \text{Zn}_{2-2x}\text{Ti}_x\text{Al}_6\text{O}_8, \text{ hex.}, \text{ P6}_3\text{mc} (\text{likely}). \]

The Zn-dominant analogue of högbomite, found as the 8H and 16H polytypes. Forms a solid-solution series with the ferrous-iron analogue of högbomite and with högbomite. Formed by breakdown of gahnite in metabauxites, Kerketefs Mountain (Mount Kerkis), Samos, Greece.

New Mineral Species Defined as a Result of Decisions
Summarized in the IMA Report on Micas

Aluminoceladonite

\[ \text{KAl(Mg,Fe}^{2+})_2\square\text{Si}_4\text{O}_{10}(\text{OH})_2, \text{mon., C2/m.} \]

Forms a series with ferro-aluminoceladonite and celadonite.

The name reflects its composition: it is an aluminous analog of celadonite. Similar to leucophyllite of Starkl (1883), which is alkali-deficient and discredited.


Aspidolite

\[ (\text{Na,K})\text{MgAlSi}_3\text{O}_{10}(\text{OH})_2, \text{mon., C2/m.} \]

The name is from the Gr. aspisidos, like a shield, alluding to the appearance of its crystals.


Eastonite

\[ \text{K}_2\text{Mg}_2\text{Al}_2\text{Si}_2\text{O}_{10}(\text{OH})_2, \text{mon., C2/c (?)}. \]

Forms a solid solution with siderophyllite and other members of the biotite series.

Named after its discovery locality. Easton, Pennsylvania, U.S.A.


Ferro-aluminoceladonite

\[ \text{KAl(Fe}^{2+},\text{Mg})_2\square\text{Si}_4\text{O}_{10}(\text{OH})_2, \text{mon., C2/m.} \]

Forms a series with ferroceladonite and aluminoceladonite.

The name reflects its composition: it is an aluminum- and ferrous-iron-rich derivative of celadonite. Found in altered crystal-vitric tuff at Hokonui Hills, Southland, New Zealand.


Ferroceladonite

\[ \text{KFe}^{3+} (\text{Fe}^{2+},\text{Mg})_2\square\text{Si}_4\text{O}_{10}(\text{OH})_2, \text{mon., C2/m.} \]

Forms a series with celadonite and ferro-aluminoceladonite.

The name reflects its composition: it is a ferrous-iron-rich derivative of celadonite. Found in altered crystal-vitric tuff at Hokonui Hills, Southland, New Zealand.


Tetra-ferri-annite

\[ \text{KFe}^{2+}_3\text{Fe}^{3+}_3\text{Si}_3\text{O}_{10}(\text{OH})_2, \text{mon., C2/m.} \]

The name reflects its composition: it is the ferric-iron-dominant equivalent of annite, with Fe$^{3+}$ in tetrahedral coordination.

Tetra-ferriphlogopite
KMg$_3$Fe$^{3+}$Si$_3$O$_{10}$(OH)$_2$, mon., C2/m.

The name reflects its composition: it is the ferric-iron-dominant equivalent of phlogopite, with Fe$^{3+}$ in tetrahedral coordination.

Trilithionite
KL$_{1.5}$Al$_{1.5}$AlSi$_3$O$_{10}$F$_2$, mon., C2/c (?).

The species as defined is not an end member.

New Mineral Species Defined as a Result of Decisions
Summarized in the IMA Report on Zeolites

Brewsterite-Ba
(Ba,Sr)[Al$_2$Si$_6$O$_{16}$]•5H$_2$O, mon., P2$_1$/m (?).

See brewsterite-Sr. The Ba-dominant member of the brewsterite series. Discovered at the No. 4 wollastonite mine of the Gouverneur Talc Co., near Harrisville, Lewis County, New York, U.S.A.

Brewsterite-Sr
(Sr,Ba,Ca)[Al$_2$Si$_6$O$_{16}$]•5H$_2$O, mon., P2$_1$/m.

Also triclinic, P1.

Named after Sir David Brewster (1781–1868), Scottish physicist who studied the optical properties of crystals. Whitesmith mine, Strontian, Argyllshire, Scotland, U.K.

Chabazite-Ca
(Ca,K,Na)[$\square$]$_2$[Al$_2$Si$_4$O$_{12}$]•6H$_2$O, trig., R$\bar{3}$m.

From Gk. chabaios, tune or melody, one of twenty stones named in the poem Peri lithos, which extolled the virtues of minerals. The poem is ascribed to Orpheus, legendary founder of the Orphic cult, which flourished in Greece in the early centuries CE. Zweibrücken, Germany.
**Chabazite-K**

\((K,Na,Ca)\Sigma_2[Al_2Si_4O_{12}]\cdot6H_2O, \text{ trig., } R3m.\)


**Chabazite-Na**

\((Na,K,Ca)\Sigma_2[Al_2Si_4O_{12}]\cdot6H_2O, \text{ trig., } R3m.\)

See chabazite-Ca. The Na-dominant member of the chabazite series. Biggest “Faraglione” facing Aci Trezza, Sicily, Italy.


**Clinoptilolite-Ca**

\((Ca,Na,K,\Sigma)[Al_3Si_5O_12]\cdot10H_2O, \text{ mon., } C2/m (\alpha).\)


**Clinoptilolite-K**

\((K,Na,Ca)\Sigma_2[Al_3Si_5O_12]\cdot10H_2O, \text{ mon., } C2/m (\alpha).\)

Named as the monoclinic dimorph of “ptilolite” (mordenite). Hoodoo Mountains, Wyoming, U.S.A., in decomposed basalt.


**Clinoptilolite-Na**

\((Na,K,\Sigma)[Al_3Si_5O_12]\cdot10H_2O, \text{ mon., } C2/m (\alpha).\)

See clinoptilolite-K. The Na-dominant member of the clinoptilolite series. Barstow Formation, Owl Canyon, San Bernardino County, California, U.S.A.


**Dachiardite-Ca**

\((Ca,Na,K)\Sigma_4.5[Al_{4.5}Si_{20}O_{48}]\cdot13H_2O, \text{ mon., } C2/m.\)

Named after Antonio D’Achiardi (1839–1902), Professor of Mineralogy, Université di Pisa, Italy, who first described the mineral discovered by his son in a granitic pegmatite. Author of *I Metalli*, *loro Minerali e Miniere* (1883). Found in a granitic pegmatite at Filone della Speranza, Monte Capanne, San Piero di Campo, island of Elba, Tuscany, Italy.

Dachiardite-Na

$\text{Na,K,Ca}_{4-5}[\text{Al}_{4.5}\text{Si}_{20.19}\text{O}_{48}]\cdot 13\text{H}_{2}\text{O}$, mon., C2/m.

See dachiardite-Ca. The Na-dominant member of the dachiardite series. Alpe di Siusi, Bolzano, Italy.


Erionite-Ca

$\text{K(Ca,Na,}_2\text{[Al}_5\text{Si}_3\text{O}_{30}]\cdot 15\text{H}_{2}\text{O}$, hex., P6$_3$/mmc.

See erionite-Na. The Ca-dominant member of the erionite series. Found in amygdaloids in altered basalt, Mazé, Niigata Prefecture, Japan.


Erionite-K

$\text{K(Na,Ca,}_2\text{[Al}_5\text{Si}_3\text{O}_{30}]\cdot 15\text{H}_{2}\text{O}$, hex., P6$_3$/mmc.


Erionite-Na

$\text{K(Na,Ca,}_2\text{[Al}_5\text{Si}_3\text{O}_{30}]\cdot 15\text{H}_{2}\text{O}$, hex., P6$_3$/mmc.

From Gk. erion, wool, alluding to its white, wool-like, crinkly appearance. Discovered in welded rhyolitic ash-flow tuff at Durkee, Baker County, Oregon, U.S.A.; proposed new type-example: Cady Mountains, California.


Faujasite-Ca

$(\text{Ca,Na,Mg,K,}_2\text{)[Al}_5\text{Si}_{12-x}\text{O}_{24}]\cdot 16\text{H}_{2}\text{O}$, 3.2 < \(x\) < 4.4, cub., Fd3m.

See faujasite-Na. The Ca-dominant member of the faujasite series. Found in drill core from Haselborn, near Ilbeshausen, Vogelsberg, Hessen, Germany.


Faujasite-Mg

$(\text{Mg,Ca,Na,K,}_2\text{)[Al}_5\text{Si}_{12-x}\text{O}_{24}]\cdot 16\text{H}_{2}\text{O}$, 3.2 < \(x\) < 4.4, cub., Fd3m.

See faujasite-Na. The Mg-dominant member of the faujasite series. Sasbach, Kaiserstuhl, Germany.


Faujasite-Na

$(\text{Na,Ca,Mg,K,}_2\text{)[Al}_5\text{Si}_{12-x}\text{O}_{24}]\cdot 16\text{H}_{2}\text{O}$, 3.2 < \(x\) < 4.4, cub., Fd3m.

Named after Barthélémy Faujas de Saint Fond (1741–1819), French geologist and student of volcanism. Sasbach, Kaiserstuhl, Germany.

Ferrierite-K

\((K,Na,Mg,Ca,\square)\Sigma_3[Al_4Si_3O_10]\cdot 4H_2O\), orth., Pnm.

See ferrierite-Mg. The K-dominant member of the ferrierite series. Santa Monica Mountains, California, U.S.A.


Ferrierite-Mg

\((Mg,K,Na,Ca,\square)\Sigma_3[Al_4Si_3O_10]\cdot 4H_2O\), orth., Pnm. Also mon., P2_1/n.


Ferrierite-Na

\((Na,K,Mg,\square)\Sigma_3[Al_4Si_3O_10]\cdot 4H_2O\), mon., P2_1/n.

See ferrierite-Mg. The Na-dominant member of the ferrierite series. Altoona, Washington, U.S.A.


Gmelinite-Ca

\((Ca,Sr,Na,K,\square)\Sigma_2[Al_4Si_3O_10]\cdot 11H_2O\), hex., P6_3/mmc.

See gmelinite-Na. The Ca-dominant member of the gmelinite series. Montecchio Maggiore, Vicenza, Italy.


Gmelinite-K

\((K,Ca,Sr,Na,\square)\Sigma_2[Al_4Si_3O_10]\cdot 11H_2O\), hex., P6_3/mmc.

See gmelinite-Na. The K-dominant member of the gmelinite series. Fara Vicentina, Vicenza, Italy.


Gmelinite-Na

\((Na,Ca,K,\square)\Sigma_2[Al_4Si_3O_10]\cdot 11H_2O\), hex., P6_3/mmc.

Named after Christian Gottlob Gmelin (1792–1860), Professor of Chemistry, University of Tübingen, Germany. Montecchio Maggiore, Vicenza, Italy.

**Heulandite-Ca**  
\((\text{Ca},\text{Na},\text{K},\text{Ca})\Sigma_2[\text{Al}_2\text{Si}_2\text{O}_7] \cdot 24\text{H}_2\text{O}, \text{mon.}, \text{C}2/\text{m}(?)\).  
Named after John Henry Heuland (1778–1856), British mineral collector (Mineral. Mag. 29, 255). No type locality; the name was given to the more distinctly monoclinic mineral previously known as stilbite. 

**Heulandite-K**  
\((\text{K},\text{Ca},\text{Na})\Sigma_2[\text{Al}_2\text{Si}_2\text{O}_7] \cdot 24\text{H}_2\text{O}, \text{mon.}, \text{C}2/\text{m}(?)\).  
See heulandite-Ca. The K-dominant member of the heulandite series. Albero Bassi, Vicenza, Italy. 

**Heulandite-Na**  
\((\text{Na},\text{Ca},\text{K},\text{Ca})\Sigma_2[\text{Al}_2\text{Si}_2\text{O}_7] \cdot 24\text{H}_2\text{O}, \text{mon.}, \text{C}2/\text{m}(?)\).  
See heulandite-Ca. The Na-dominant member of the heulandite series. Chalhs, Custer County, Idaho, U.S.A. 

**Heulandite-Sr**  
\((\text{Sr},\text{Ca},\text{Na},\text{Ca})\Sigma_2[\text{Al}_2\text{Si}_2\text{O}_7] \cdot 24\text{H}_2\text{O}, \text{mon.}, \text{C}2/\text{m}(?)\).  
See heulandite-Ca. The Sr-dominant member of the heulandite series. Campegli, eastern Ligurian ophiolites, Italy. 

**Levyne-Ca**  
\((\text{Ca},\text{Na},\text{K},\text{Ca})\Sigma_2[\text{Al}_6\text{Si}_2\text{O}_3] \cdot 17\text{H}_2\text{O}, \text{trig.}, \text{R}3\text{m}\).  

**Levyne-Na**  
\((\text{Na},\text{Ca},\text{K},\text{Ca})\Sigma_2[\text{Al}_6\text{Si}_2\text{O}_3] \cdot 17\text{H}_2\text{O}, \text{trig.}, \text{R}3\text{m}\).  

**Paulingite-Ca**  
\((\text{K},\text{Ca},\text{Na},\text{Ba})\Sigma_2[\text{Al}_{10}\text{Si}_{12}\text{O}_{34}] \cdot 27-44\text{H}_2\text{O}, \text{cub.}, \text{I}m\text{3m}\).  
See paulingite-K. The Ca-dominant member of the paulingite series. Ritter, Oregon, U.S.A. 
Paulingite-K

\[(\text{Ca},\text{K},\text{Na},\text{Ba})_{10}\text{[Al}_{12}\text{Si}_{32}\text{O}_{84}]\cdot27-44\text{H}_{2}\text{O}}, \text{cub., } \text{Im}3\text{m}\]

Named after Linus Carol Pauling (1901–1994), chemist and physicist, Linus Pauling Institute of Science and Medicine, Menlo Park, California; Nobel Laureate for his work on chemical bonding. Rock Island Dam, Columbia River, Wenatchee, Douglas County, Washington, U.S.A.


Phillipsite-Ca

\[(\text{Ca},\text{K},\text{Na},\text{Ba})_{x}\text{[Al}_{16-}\text{Si}_{16}\text{O}_{32}]\cdot12\text{H}_{2}\text{O}, x \text{ in the range 4–7}, \text{mon., } \text{P}2_1 (\tilde{?)})\]

Shows solid solution toward harmotome.

See phillipsite-Na. The Ca-dominant member of the phillipsite series. Lower Salt Lake Tuff, Puuloa Road near junction with Moanalua Road, Oahu, Hawaii.


Phillipsite-K

\[(\text{K},\text{Ca},\text{Na},\text{Ba})_{x}\text{[Al}_{16-}\text{Si}_{16}\text{O}_{32}]\cdot12\text{H}_{2}\text{O}, x \text{ in the range 4–7}, \text{mon., } \text{P}2_1 (\tilde{?)})\]

Shows solid solution toward harmotome.


Phillipsite-Na

\[(\text{Na},\text{K},\text{Ca},\text{Ba})_{x}\text{[Al}_{16-}\text{Si}_{16}\text{O}_{32}]\cdot12\text{H}_{2}\text{O}, x \text{ in the range 4–7}, \text{mon., } \text{P}2_1 (\tilde{?)})\]


Stilbite-Ca

\[(\text{Ca},\text{Na},\text{K},\square)_{9}\text{[Al}_{9}\text{Si}_{7}\text{O}_{22}]\cdot28\text{H}_{2}\text{O}}, \text{mon., } \text{C}2/m.\]

From Gk. stilbein, to glitter or shine, or stilbe, a mirror, alluding to its pearly or vitreous luster. Hauy mentioned occurrences in Iceland, Andrasberg in Harz, Alpes Dauphinoises and Norway, but no clear type-locality.


Stilbite-Na

\[(\text{Na},\text{Ca},\text{K},\square)_{9}\text{[Al}_{9}\text{Si}_{7}\text{O}_{22}]\cdot28\text{H}_{2}\text{O}}, \text{mon., } \text{C}2/m.\]

See stilbite-Ca. The Ba-dominant member of the stilbite series. Capo Pula, Cagliari, Sardinia, Italy.

Established Minerals Left Out of the Encyclopedia

**Calcio-ancylite-(Ce)**

(Ca, Sr)(Ce,REE)₃(CO₃)₄(OH)₃•H₂O, mon., Pmmm.

Forms a series with ancyelite-(Ce).

The name reflects its calcium content and its analogy to ancyelite-(Ce). Reported first in glacial boulders in the “Western Lands” of Czarist Russia. The specific locality is unknown, but probably in the Khibina alkaline complex, Kola Peninsula, Russia. Also found in the Foote mine, Cleveland County, North Carolina, U.S.A.


**Delvauxite**

CaFe³⁺₄(PO₄,SO₄)₂(OH)₈•4–6H₂O, amorphous.

Named after J.S.P.J. Delvaux de Feuffe (1782-1863), Belgian chemist who first described and analyzed the mineral. Berneau, near Visé, Liège, Belgium.


**Dienerite**

Ni₃As, cub., (?).

Named after Karl Diener (1862–1928), Austrian paleontologist from Vienna who discovered the mineral. Near Radstadt, Salzburg, Austria.


**Douglasite**

K₂Fe²⁺Cl₄•2H₂O, mon., (?).

Named after its discovery locality. Found at Douglasschall, northwest of Stassfurt, Germany.

Minerals Listed in the Encyclopedia that have been Discredited or were Misspelled

Ashanite = a mixture of Ixiolite, Samarskite-(Y) and Uranmicrolite (Am. Mineral. 84, 688)
Baiyuneboite-(Ce) = Cordylite-(Ce) (Am. Mineral. 75, 240)
Bel'kovite = Belkovite (misspelled)
Belinite = Bilinite (misspelled)
D'Ansite = D'ansite (misspelled)
Diabolite = Diabolite (misspelled)
Fenaksite = Fenaksite (misspelled)
Feroxhyte = Feroxyhyte (misspelled)
Ferri-annite = Tetra-ferri-annite (Can. Mineral. 36, 910)
Herschelite = Chabazite-Na (Can. Mineral. 35, 1593)
Hodrushiite = Hodrusite (misspelled)
Kankite = Kañkite (misspelled)
Krutaitite = Krut'aite (misspelled)
Kutinaite = Kutinaite (misspelled)
Lardarellite = Larderellite (misspelled)
Lusungite = Benauite (Mineral. Mag. 59, 143)
N'Chwaningite = N'chwaningite (IMA convention)
Nováčekite = Nováčekite (misspelled)
O'Danielite = O'danielite (IMA convention)
Offretite = Offretite (misspelled)
Platynite = Laitakarite + selenian Galena (Can. Mineral. 37, in press)
Taeniolite = Tainiolite (决策 of IMA Mica Subcommittee)
Zdenekite = Zdeněkite (misspelled)
Teinite = Teineite (misspelled)
Tetranatrolite = Gonnardite (Am. Mineral. 84, 1445)