NEW MINERAL NAMES*

JOHN L. JAMBOR
CANMET, 555 Booth Street, Ottawa, Ontario K1A 0G1, Canada

JACEK PUZIEWICZ
Institute of Geological Sciences, University of Wroclaw, Cybulskiego 30, 50-205 Wroclaw, Poland

Bystrite*


Microprobe analysis combined with coulometry (H2O) and various traditional techniques (total and sulfidic sulfur) gave SiO2 33.37, Al2O3 26.74, CaO 5.10, Na2O 14.42, K2O 7.63, S 12.03, SO3 0.32, CI 0.25, H2O 1.62, O = S1.92, and CI 2.06, sum 99.92 wt%, corresponding to (Ca10,Na10,K10)2(Si6Al10O30)(OH)·H2O. Readily soluble in dilute acids, producing H2S. After heating in air at 800 °C becomes dark green. Single-crystal X-ray structural study (R : 0.078) showed the mineral to have trigonal symmetry, space group P31c, a = 12.855, c = 10.700 Å. The strongest lines of the powder pattern (49 given) are: 4.82(70,102), 3.919(80,211), 3.720(100,300), 3.313(90,212), and 2.676(70,004). Dcalc = 2.70 g/cm3. Optically biaxial negative, β = 1.642, γ = 1.658, 2V = 90°, X = b, Y = a, Z = c, dispersion r > v; distinctly pleochroic, Z = greenish yellow, X and Y almost colorless. Orthorhombic symmetry, a = 15.05, b = 37.37, c = 7.18 Å, space group Ccca, Z = 16. Strongest lines of the X-ray pattern are 9.38 (100,040), 5.00 (70,221), 3.52 (70,022), 2.84 (90,082), and 2.60 (80,420). The mineral occurs in a granitic pegmatite vein in Ilmenskij National Park, Urals, Russia, and is associated with products of decomposition of triplite, francolite, ushkovite, matveevite (which see), and iron and manganese hydroxides. The name is for mineralogist A.V. Kalugin.

**Discussion.** Data are from the abstract by Kdryashova and Rozhdestvenskaya. The original paper by B.V. Chesnokov, V.A. Vilitov, V.O. Polakov, and A.F. Bushmakin, published in the book Mineraly i mineralnoe syre gorno-promyshlennykh rajonov Urala, could not be obtained. The mineral was submitted to the CNMMN in 1983, but the name was approved. See also the abstract for matveevite. J.P.
[The original paper has since been obtained and data from it are incorporated in the above abstract—Ed.]

Kaluginite


**Luberoite**


Electron microprobe analysis gave Pt 75.76, Se 24.24 wt%, and that of a Pt5Se6 standard gave Pt 75.54, Se 24.46 wt%, corresponding well to Pt5Se6. Occurs as irregular grains and aggregates. Type material is at the Fersman Mineralogical Museum, Moscow, Russia. J.P.

Microprobe analysis gave Mn 10.07, Ca 4.76, Mg 5.92, Fe 11.95, Al 0.8, P 16.18, H2O (by weight loss) 20.78 wt%, corresponding to (Mn, Ca)MgFe4+(PO4)3(OH)·4H2O. The mineral forms platy crystals up to 0.5–1 mm, flattened [100], slightly elongate [001], showing {101}, [100], [010], [111], and [211]. Light yellowish green to greenish yellow, transparent to translucent, vitreous to greasy luster, white streak with a yellowish tint, brittle, uneven fracture, H = 3.5, imperfect {010} cleavage, Dcalc = 7.20 g/cm3. Optically biaxial negative, α = 1.627, β = 1.642, γ = 1.658, 2V = 90°, X = b, Y = a, Z = c, dispersion r > v; distinctly pleochroic, Z = greenish yellow, X and Y almost colorless. Orthorhombic symmetry, a = 15.05, b = 37.37, c = 7.18 Å, space group Cc, Z = 16. Strongest lines of the X-ray pattern are 9.38 (100,040), 5.00 (70,221), 3.52 (70,022), 2.84 (90,082), and 2.60 (80,420). The mineral occurs in a granitic pegmatite vein in Ilmenskij National Park, Urals, Russia, and is associated with products of decomposition of triplite, francolite, ushkovite, matveevite (which see), and iron and manganese hydroxides. The name is for mineralogist A.V. Kalugin.

**Discussion.** Data are from the abstract by Kdryashova and Rozhdestvenskaya. The original paper by B.V. Chesnokov, V.A. Vilitov, V.O. Polakov, and A.F. Bushmakin, published in the book Mineraly i mineralnoe syre gorno-promyshlennykh rajonov Urala, could not be obtained. The mineral was submitted to the CNMMN in 1983, but the name was approved. See also the abstract for matveevite. J.P.
[The original paper has since been obtained and data from it are incorporated in the above abstract—Ed.]
13.02, $D_{\text{max}}$ (synthetic) = 13.02 g/cm$^3$. In reflected light, white with a greenish yellow hue, weak pleochroism, strong bireflectance and anisotropism. Reflectance percentages are given in 10-nm steps in air and oil; values for $R_{\max}$ and $R_{\min}$ in air and in oil for the four standard wavelengths are, respectively, 47.0 48.6, 42.6 (38.4, 38.2); $P_r$ = 7.23, 7.76. X-ray single-crystal study indicated monoclinic symmetry, space group $P2_1/c$, $a = 6.584(5)$, $b = 4.602(3)$, $c = 11.10(1)$ Å, $\beta = 101.6(1)^\circ$, $Z = 2$. Strongest lines of the powder pattern (114.6-mm Debye-Scherrer, CuKa radiation) are 5.45(60,002), 3.27(60,112), 2.93(80,113), 2.78(60,T13), 2.648(60B,210), 2.465-60113), 1.875(100B,221,304,302), and 1.812(70,006).

Known as a synthetic compound, for which the crystal structure has been determined.

The mineral was found in museum-preserved placer concentrates from the Lubero region, Kivu Province, Zaire. The main constituent of the concentrates is native Pt. The new name is for the locality. Type material is in the Institut royal des Sciences naturelles de Belgique, Brussels. J.L.J.

Matveevite


The average of two electron microprobe analyses gave MgO 3.51, MnO 8.06, P$_2$O$_5$ 29.37, Al$_2$O$_3$ 4.25, Fe$_2$O$_3$ 9.21, TiO$_2$ 8.54, K$_2$O 2.11, H$_2$O (by difference) 34.95, sum 100 wt%, corresponding to (K,H$_2$O)Ti(Mn,Mg)$_2$-(Fe$^{3+}$,Al)$_2$(PO$_4$)$_4$(OH)$_2$·15H$_2$O. Isometric or thin platy crystals up to 0.1–0.2 mm are white to almost colorless, also yellowish, showing {010}, {100}, {111}. Transparent to translucent, white streak, luster vitreous, pearly on {010}. Perfect {010} cleavage, brittle, uneven fracture, $H = 2.5$, $D_{\text{max}} = 2.32$, $D_{\text{calc}} = 2.40$ g/cm$^3$. Optically biaxial positive, $a = 1.574$, $b = 1.580$, $c = 1.618$, $2V_{\text{alc}} = 44^\circ$, $X = \alpha$, $Y = \alpha$, $Z = \gamma$. Orthorhombic symmetry, $a = 12.42$, $b = 20.52$, $c = 10.52$ Å, space group $Pnma$ or $Pna2_1$. Strongest lines of the X-ray pattern are 10.40(90,020), 7.50(80,111), 6.23(100,200), 3.15(90,152,242), and 2.86(40,062). The mineral occurs in a granitic pegmatite vein in Ilmenskij National Park, Urals, Russia, and is associated with products of decomposition of triplite, francolite, ushkovite, kaluginite, and iron and manganese hydroxides. The name is for mineralogist K.K. Matveev (1875–1954).

Discussion. Data are from the abstract by Kydryashova and Rozhdestvenskaya because the original paper by B.V. Chesnokov, V.A. Vilisov, V.O. Polakov, and A.F. Bushmakin, published in the book *Mineraly i mineral'noe syre gorno-promyshlennykh rajonov Urala*, could not be obtained. The proposed new mineral and name were submitted to the CNMMN in 1986 and were not approved. Possibly related to paulkerrite. J.P.

Olekminskite


Microprobe analyses (CO$_3$ calculated, five crystals analyzed, 17 analyses given) gave SrO 49.86, CaO 6.68, BaO 11.23, La$_2$O$_3$ 0.21, Ce$_2$O$_3$ 0.56, CO$_2$ 29.94, sum 98.48 wt%, corresponding to Sr$_{1.41}$Ca$_{0.35}$Ba$_{0.21}$La$_{0.04}$Ce$_{0.015}$ (CO$_3$)$_2$. Small amounts of FeO (0.00–0.27), MnO (0.04–0.19), and MgO (0.00–0.02 wt%) were found. The mineral forms needlelike crystals, 0.005–0.010 mm thick, occurring in spherulitic aggregates 0.10–0.15 mm in radius. The crystals are round to hexagonal in cross section; their centers are enriched in Ca and Ba, and the rims in Sr. Transparent, brittle, $H = 3$, luster vitreous, $D_{\text{max}} = 3.70(2)$, $D_{\text{calc}} = 3.650–3.682$ g/cm$^3$. In thin section, transparent, straight extinction, uniaxial negative, $\omega = 1.670(2)$, $\epsilon = 1.527(2)$, negative elongation. There exists a range of compositions between the new mineral and paralstonite. Hexagonal symmetry and space group $P32_1$ were assumed by analogy with paralstonite. X-ray powder study gave $a = 8.66(2)$, $c = 6.08(2)$ Å; strongest lines (20 given) are 3.50(100), 2.49(90), 2.03(90), and 1.305(70, diffuse).

The mineral occurs in barytocalcite-quartz veins of 5–10 cm width that cut intrusive breccias accompanying the alkaline Kedrovyj massif, Aldan Shield, Siberia, Russia, located close to the Murunskij alkaline complex. Associated minerals are calcite, barite, and ankerite that replaced barytocalcines. The name is for the city Olekminsk, the administration center of the Murunskij alkaline complex. The repository for type material was not given. J.P.

Padmaite


Microprobe analysis (30 given, nine samples analyzed) gave Pd 25.70, Pt 1.20, Bi 53.60, Ag 0.80, Au 0.00, Se 18.80, S 0.20, sum 100.30 wt%, corresponding to Pd$_{0.96}$Pt$_{0.02}$Bi$_{0.02}$Ag$_{0.03}$Se$_{0.94}$S$_{0.02}$. Ideally PdBiSe. Occurs as isometric, irregular grains up to 0.2 mm in diameter, and as symplectic intergrowths with palladium sulfides up to 0.01–0.02 mm. Light yellow color, metallic luster, $H = 3–4$, microhardness 260–272 kg/mm$^2$ (20-g load), imperfect cleavage in two perpendicular directions, $D_{\text{calc}} = 9.86$ g/cm$^3$ with $Z = 4$. Pinkish yellow in reflected light, isotropic, no internal reflection. Reflectance measure-
The mineral occurs in metasomatic rocks formed in shungite-bearing metashales of Lower Proterozoic age, Padma River, southern Karelia, Russia. Associated minerals are claushtalite, paraguanajuatite, bohdanowiczite, sobolevskite, froodite, hematite, native Bi and Au, roscoelite, chromium phengite, dolomite, and quartz. The new name is for the locality. Type material is at the Mining Museum of the Leningrad Mining Institute, Russia.

**Para-nite-(Y)**


The mineral occurs as creamy yellow crystals of elongate dipyramidal habit, to 3 mm, in a single specimen collected from the Alpe Devero-Ossola Valley area, on the Italian side of the Pizzo Cervandone region, Central Alps. Single-crystal X-ray structural study \((R = 0.024)\) gave tetragonal symmetry, space group \(I4/1_2, a = 5.135(1), c = 33.882(5) \text{ Å} \), \(D_{\text{calc}} = 5.975 \text{ g/cm}^3\) with \(Z = 4\). Cell parameters are similar to those of scheelite, but with \(c\) tripled in para-nite-(Y). The mineral has a scheelite-type structure and consists of layers of composition \(\text{YAsO}_4\) stacked in an orderly manner along \([001]\) in a molar ratio 1:2.

**Discussion.** The new name appears in a footnote stating that the mineral has been submitted to the IMA for approval. J.L.J.

**Reppiaite*\**


Electron microprobe analysis gave MnO 61.17, V\(_2\)O\(_3\) 25.79, As\(_2\)O\(_5\) 6.87, sum 93.83 wt\% \([\text{H}_2\text{O by difference, 16.17 wt\%}]\), corresponding to Mn\(_{5.01}\)(OH)\(_{1.98}\)(V\(_{1.55}\)As\(_{0.53}\))O\(_{10}\)\(_{0.02}\), ideally Mn\(_4\)(OH)\(_6\)(VO\(_4\))\(_3\). Occurs as aggregates of minute tabular crystals, flattened (100) and striated, up to 300 \(\mu\text{m}\) in diameter and 50 \(\mu\text{m}\) thick. Orange-red color, orange-yellow streak, vitreous luster, transparent, nonfluorescent, no cleavage, VHN\(_{15}\) = 90–110 on (100) face, \(D_{\text{meas}} = 3.92, D_{\text{calc}} = 3.91 \text{ g/cm}^3\) with \(Z = 2\). Optically biaxial negative, \(2V\) large, with \(\alpha' = 1.803(2), \gamma' = 1.810(5), \) and weak pleochroism from light yellow-orange to deep orange as measured on the (100) face; medium dispersion. X-ray single-crystal refinement \((R = 0.038)\) indicated monoclinic symmetry, space group \(C2/m\), \(a = 9.604(2), b = 9.558(2), c = 5.393(3) \text{ Å}, \beta = 98.45(1)\). Strongest lines of the powder pattern (\(\text{FeK} \alpha\) radiation, Gandolfi camera, calculated intensities) are 4.76(81,200), 3.37(38,220), 3.00(34,310)(26,221), 2.680(100,131), 2.656(50,002), 2.155(50,331), 1.565(39,133), and 1.510(33,531).

**Discussion.** An approved name, but an incomplete description. J.P.

**Simferite*\**


The mineral occurs at the contact of REE-bearing pegmatite and phlogopitized tremolite rock as dark red aggregates up to 3 mm. Individual crystals are up to 0.1 mm in size and are commonly twinned. Optical properties and chemical composition vary: \(\alpha = 1.690–1.704, \beta = 1.702–1.716, \gamma = 1.712–1.726. D_{\text{meas}} = 3.22–3.25, D_{\text{calc}} = 3.25 \text{ g/cm}^3\) with \(Z = 4\). X-ray data show the mineral to be orthorhombic, \(a = 4.7468(7), b = 10.101(2), c = 5.8992(7) \text{ Å}\), space group \(Pbnm\) or \(Pbn2_1\). The chemical formula is given as \(\text{Li}_{0.5}(\text{Mg}_{0.5} \text{Fe}_{0.5} \text{Mn}_{0.5})[\text{PO}_4]\).

**Discussion.** An approved name, but an incomplete description. J.P.

**Tinnunculite**


Chemical analysis gave O 33.20, C 30.70, N 29.00, H 3.24, K 2.25, Na 0.18, S 0.25, ash 1.24, sum 100.06 wt%, corresponding to \(\text{C}_{90.5} \text{H}_{129.4} \text{N}_{90.5} \text{O}_{15}\) (K, Na, S, and ash assumed to be admixed). Mass, paramagnetic resonance, and infrared spectrometric results suggest that the mineral is a product of dimer condensation of uric acid with low-temperature separation of a low-molecular part during oxidation; thus the formula is \(\text{C}_{90.5} \text{H}_{129.4} \text{N}_{90.5} \text{O}_{15}\). In a closed tube yields \(\text{H}_2\text{O}\), later rich black and white deposits. X-ray and electron-diffraction studies showed the mineral to be orthorhombic, \(a = 15.08(1), b = 12.56(1), c = 34.64(10) \text{ Å}, Z = 18, D_{\text{calc}} = 1.695, D_{\text{meas}} = 1.73(1) \text{ g/cm}^3\). Strongest lines of the X-ray pattern are 4.24(20,026), 3.77(10,400), 3.21(100,420), 1.774(20,822), and 1.608(30,840). Strongest lines of the electron diffraction polycrystalline pat-
tern are 5.00(40,024), 4.78(40,221), 3.22(100,420), and 3.14(80,040). Occurs as plates up to 0.4 x 3 x 4 cm that consist of very fine-grained particles shown by SEM to be platy crystals with a perfect cleavage parallel to the plates. Yellowish white color, yellowish white streak, dull luster, earthy to conchoidal fracture. Reflective index close to 1.523; X parallels the longer edge of the rectangular plates, Y parallels the shorter edge, and Z is perpendicular to the flattening and cleavage. Occurs in the burned dump in the Chelyabinsk coal basin, Russia. The name is for Falco tinnunculus, the Latin term for kestrel (a European falcon). The mineral formed as a product of hot gases from a burning coal dump reacting with excrement from Falco tinnunculus.

**Discussion.** The mineral and name were submitted to the CNMMN and were not approved. J.P.

**(Zn,Cu,Fe)S**


Ten electron microprobe analyses gave an average and (range) of Zn 54.29 (53.40–55.60), Fe 6.56 (6.17–6.86), Cu 6.46 (6.17–6.78), Pb 0.31 (0.02–0.66), Cd 0.20 (0.00–0.38), Co 0.02 (0.00–0.04), S 32.32 (31.42–32.95), sum [100.16] (98.85–101.50) wt%, corresponding to (Zn0.8–

Fe0.15Cu0.09S), ideally (Zn,Cu,Fe)S. Analysis of coexisting sphalerite gave Zn 57.23, Fe 8.78, Cu 0.05, Cd 0.311, Co 0.032, Mn 0.24, Bi 0.011, As <0.2, Sn 0.38, sum 97.10 wt%, corresponding to (Zn0.95–

Fe0.05)S. Color black, metallic luster, opaque, non-magnetic, H = 165–214 kg/mm2 (Mohs 3.5–4), harder than sphalerite. In reflected light, gray with a slight bluish tint and slightly yellowish brown relative to sphalerite; n = 1.6–1.7, one distinct parting or cleavage, soluble in H2O or alcohol. Bireflectant in reflected light, showing bubbles formed by exposure to atmospheric moisture. Electron microprobe analyses of five samples gave Fe 49.05, Mn 1.77, Mg 2.54, Si 0.10, Al 0.01, Cl 16.87, OH (by difference) 30.71, sum 100 wt%, corresponding to Fe0.37Mn0.012

Mg0.01Si0.04Cl0.47(OH)1.810, possibly (Fe,Mg,Cl)2(OH). 


**Mg(UO2)(AsO4)2·4H2O**


The mineral occurs as yellow plates, flattened [001], that appear as acicular groups in cavities in nickelite at the Talmessi Cu mine, Anarak, Iran. Single-crystal X-ray structural study (R = 0.063) gave monoclinic symmetry, space group C2/m, a = 18.207(5), b = 7.062(3), c = 6.661(3) Å, β = 99.65(5°), Z = 2, Dcalc = 3.60 g/cm3.

**Discussion.** No mention is made of the mineralogical relationships, but this may be the monoclinic polymorph of metanovacekite, which is tetragonal. J.L.J.

**New Data**

**Ferrocarpholite**

Carpholite of composition \((\text{Fe}, \text{Mg}, \text{Al})\text{SiO}_4(\text{OH})_8\) was structurally refined (\(R = 0.025\)) by the single-crystal X-ray method: \(a = 13.797(9)\), \(b = 20.20(2)\), \(c = 5.116(5)\) Å, orthorhombic space group Ccca. A few weak reflections violate the space group, the mineral has optically inclined extinction, and the Raman spectrum has three (rather than two) OH stretching bands, indicating that the true symmetry is monoclinic, probable space group \(\text{P}2_1/\text{c}\) or \(\text{Pc}\). It is concluded that order-disorder involving H atoms, and cation or anion impurities in two large cavities in the structure can produce a lower symmetry, which is negligible for X-ray diffraction but is sufficient to alter optical and spectroscopic properties. J.I.J.

Klyuchevskite
Electron microprobe redetermination of the composition of klyuchevskite (Abs., Am. Mineral. 75, 1210-1211, 1990) gave the formula \(\text{K}_{3.06} (\text{Cu}_{3.10}\text{Pb}_{0.02})\text{Fe}_{13.07}\text{Al}_{0.24}\text{SO}_{48}\)\(_8\). Single-crystal X-ray structural study (\(R = 0.12\)) gave monoclinic symmetry, space group \(\text{P}2_1/\text{c}\), \(D_{\text{calc}} = 2.98\) g/cm\(^3\). The space group is newly specified, as is the presence of Al rather than Cu in the trivalent position. Klyuchevskite is structurally related to pipyrite. J.I.J.

Komkovite
Single-crystal X-ray structural refinement of komkovite showed its (new) space group to be \(\text{R}32\), chemical formula \(\text{BaZr}[(\text{Si}_{12}\text{O}_{30})]/2.4\text{H}_2\text{O}; \ D_{\text{calc}} = 3.31\) g/cm\(^3\), identical to the previously reported measured value (Am. Mineral. 77, 207-208, 1992). J.P.

Laumontite
X-ray powder diffractometry of laumontite from Menashidomari, Hokkaido, Japan, showed that the number of H\(_2\)O molecules per formula unit changes from 12 H\(_2\)O at 0-5% relative humidity, to 14 H\(_2\)O at 10-70% relative humidity, to 16-18 H\(_2\)O at 80-100% relative humidity. Calculated cell parameters at 12 H\(_2\)O are \(a = 14.71(1)\), \(b = 13.09(1)\), \(c = 7.46(1)\) Å, \(\beta = 112.1(1)^\circ\); at 14 H\(_2\)O \(a = 14.77(2)\), \(b = 13.09(2)\), \(c = 7.58(2)\), \(\beta = 112.0(1)^\circ\); at 16-18 H\(_2\)O cell parameters vary from \(a = 14.85-14.90\), \(b = 13.19-13.19\), \(c = 7.55-7.55\), \(\beta = 110.7-110.2^\circ\). X-ray powder data are tabulated for the mineral at 0, 50, and 100% relative humidity.
The above H\(_2\)O contents relate to a cell containing 48 O atoms, and for a cell with 12 O atoms (\(Z = 4\)) the corresponding H\(_2\)O contents are 3.0, 3.5, and 4.0-4.5. X-ray single-crystal structural study by Armbruster and Kohler showed that fully hydrated laumontite has 4.5 H\(_2\)O pfu. Structural refinements for a sample in which content was varied from 4.3, 3.6, 2.9, and 2.7 H\(_2\)O showed a decrease in cell volume and an increase in \(\beta\) angle. Dehydration occurs initially with the release of H\(_2\)O linked only by H bonds to the tetrahedral framework and to additional H\(_2\)O; subsequently, small amounts of Ca-bonded H\(_2\)O are also expelled. At the intermediate stage (3.6 H\(_2\)O) the structure has partly occupied H\(_2\)O sites proposed to be related to long-range ordering of H\(_2\)O. J.I.J.

Russellite
Neutron powder diffraction and Rietveld refinement of synthetic Bi\(_2\)WO\(_6\), corresponding to the mineral russellite, indicate orthorhombic symmetry, space group \(\text{P}2_1/\text{a}\), \(a = 5.43726(2)\), \(b = 16.43018(5)\), \(c = 5.48492(2)\) Å, \(D_{\text{calc}} = 9.50\) g/cm\(^3\). Strongest lines of the X-ray powder pattern (diffractometer, CuKa radiation) are 3.151(100,131), 2.738(29,060), 2.729(22,002), 2.719(22,200), 1.926(19,202), 1.650(20,191), 1.646(21,133), and 1.575(21,262). Russellite is isostructural with koechlinite, Bi\(_2\)MoO\(_6\). The symmetry, cell parameters, and space group of russellite are new. J.I.J.

Discredited Mineral
Katayamalite, Baratovite
Baratovite, named in 1975, has been described as monoclinic, space group \(\text{C}2/\text{c}\), composition \(\text{KLi}(\text{Ti}, \text{Zr})\text{Si}_6\text{O}_{18}\text{Fe}_2\). Katayamalite, named in 1983, was described as triclinic, composition \((\text{K}, \text{Na})\text{Li}(\text{Ti}, \text{Fe}, \text{Mg})\text{Si}_6\text{O}_{18}\text{Fe}_2\\)\(_\text{OH}_2\text{F}_2\). The centrosymmetrical triclinic cell for katayamalite, \(a = 9.721, b = 16.923, c = 19.942\) Å, \(\alpha = 91.43, \beta = 104.15, \gamma = 89.84^\circ\), can be transposed to a monoclinic \(\text{C}2/c\) cell to yield \(a = 16.923, b = 9.721, c = 20.909\) Å, \(\alpha = 89.98, \beta = 112.40, \gamma = 89.94^\circ\), in good agreement with the cell for baratovite: \(a = 12.86, b = 18.90, c = 11.28\) Å, \(\alpha = 89.98, \beta = 112.40, \gamma = 89.94^\circ\).
The crystal structures of katayamalite and baratovite are identical within experimental error. The only available chemical analysis of baratovite indicates that insufficient F is present to justify two atoms of F in the originally proposed ideal formula KLi, Ca\(_2\)Ti\(_2\)O\(_{15}\)F\(_2\), and it is concluded that the ideal formula of baratovite should be KLi, Ca\(_2\)Ti\(_2\)O\(_{15}\)(OH,F), which is the same as the formula for katayamalite.

**Discussion.** It is not suggested which of the two minerals should be discredited, and a proposal has not been submitted to the CNMMN. J.L.J.