



## IMA Commission on New Minerals, Nomenclature and Classification (CNMNC) – Newsletter 91

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The information given here is provided by the IMA Commission on New Minerals, Nomenclature and Classification for comparative purposes and as a service to mineralogists working on new species.

Each mineral is described in the following format:

- Mineral name, if the authors agree on its release prior to the full description appearing in press
- Chemical formula (ideal formula)
- Mineral symbol
- Type locality
- Full authorship of proposal
- E-mail address of corresponding author
- Relationship to other minerals
- Crystal system, space group; structure determined, yes or no
- Unit-cell parameters
- Strongest lines in the X-ray powder diffraction pattern
- Type specimen repository and specimen number

– Citation details for the mineral prior to publication of full description

Citation details concern the fact that this information will be published in the *European Journal of Mineralogy* on a routine basis, as well as being added month by month to the Commission's website. It is still a requirement for the authors to publish a full description of the new mineral.

No other information will be released by the commission.

### 1 New mineral proposals approved in April 2026

IMA no. 2025-031b

Piilonenite-(Nd)

$\text{NaNd}(\text{CO}_3)_2(\text{H}_2\text{O})_3$

Pii-Nd

Poudrette (Demix) quarry, Mont Saint-Hilaire, Quebec, Canada (45°33'46" N, 73°08'30" W)

Inna Lykova\*, Ralph Rowe, Simon Teat, Glenn Poirier, and Stephanie Barnes

\* E-mail: ilykova@nature.ca

New structure type

Orthorhombic:  $P2_12_12_1$ ; structure determined  
 $a = 6.791(1)$ ,  $b = 17.135(3)$  Å,  $c = 6.436(1)$

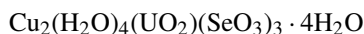
8.59(100), 4.690(14), 4.529(7), 4.291(30), 4.123(7), 3.417(10), 3.175(17), 2.859(8)

Type material is deposited in the collections of the Canadian Museum of Nature, 240 McLeod Street, Ottawa, ON K2P 2R1, Canada, catalogue number CMNMC 93393

How to cite: Lykova, I., Rowe, R., Teat, S., Poirier, G., and Barnes, S.: Piilonenite-(Nd), IMA 2025-031b, in: CNMNC Newsletter 91, Eur. J. Mineral., 38, <https://doi.org/10.5194/ejm-38-347-2026>, 2026.

#### IMA no. 2025-101

Kristekite



Kik

In the mine dump of the shaft no. 11A, near Bytíz, Příbram ore district, Central Bohemia, Czech Republic (49°41'18.89" N, 14°04'13.15" E)

Jakub Plášil\*, Pavel Škácha, Jiří Sejkora, Radek Škoda, and Radana Vrtišková

\* E-mail: [plasil@fzu.cz](mailto:plasil@fzu.cz)

Chemically related to marthozite

Monoclinic:  $P2_1/m$ ; structure determined

$a = 6.3664(2)$ ,  $b = 15.8932(4)$ ,  $c = 8.1248(3)$  Å,  
 $\beta = 91.437(2)^\circ$

8.197(53), 7.293(100), 5.718(7), 4.100(40), 3.647(7), 3.247(7), 3.129(5), 2.974(9)

Type material is deposited in the collections of the Department of Mineralogy and Petrology, National Museum, Cirkusová 1740, 19300 Praha 9, Czech Republic, catalogue number PIP 46/2025

How to cite: Plášil, J., Škácha, P., Sejkora, J., Škoda, R., and Vrtišková, R.: Kristekite, IMA 2025-101, in: CNMNC Newsletter 91, Eur. J. Mineral., 38, <https://doi.org/10.5194/ejm-38-347-2026>, 2026.

#### IMA no. 2025-102

Magnesiochangesite-(Ce)



Mcgs-Ce

Lunar meteorite Pakepake005, discovered in the Taklamakan desert, Xinjiang, China (38°50'22" N, 83°42'18" E)

Yanjuan Wang\*, Zengqian Hou, Xiaochao Che, Arianna E. Lanza, Fernando Cámara, Zhenyu Chen, Cheng Yue, Ze Liu, Qingqing Yin, Tao Long, Maxwell C. Day, Francesca Innocenzi, Lisa Santello, Anna Barbaro, Simone Molinari, Ziyao Wang, Junping Ren, Ran Zhang, Kai Qu, and Fabrizio Nestola\*

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[fabrizio.nestola@unipd.it](mailto:fabrizio.nestola@unipd.it)

Cerite supergroup

Trigonal:  $R3c$ ; structure determined

$a = 10.3813(4)$ ,  $c = 37.278(1)$  Å

3.430(16), 3.190(16), 2.865(100), 2.591(39), 2.089(29), 1.878(12), 1.810(13), 1.715(20)

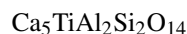
Type material is deposited in the collections of the Geological Museum of China, no. 16, Yangrou Hutong, Xisi, Beijing 100031, People's Republic of China, catalogue number GM-CTM2025021

How to cite: Wang, Y., Hou, Z., Che, X., Lanza, A. E., Cámara, F., Chen, Z., Yue, C., Liu, Z., Yin, Q., Long, T., Day, M. C., Innocenzi, F., Santello, L., Barbaro, A., Molinari, S., Wang, Z., Ren, J., Zhang, R., Qu, K., and Nestola, F.: Magnesiochangesite-(Ce), IMA 2025-102, in: CNMNC Newsletter 91, Eur. J. Mineral., 38, <https://doi.org/10.5194/ejm-38-347-2026>, 2026.

## 2 New mineral proposals approved in May 2026

#### IMA no. 2025-072

Bernwoodite



Bew

As inclusion in a diamond from the Rio Sorriso placer, Juina area, Mato Grosso, Brazil (11°19'59" S, 59°10'59" W)

Nester Korolev\*, Ekaterina S. Kiseeva, Alena Aslandukova, George E. Harlow, Chi Ma, Yaakov Weiss, Alexander Kurnosov, Felix V. Kaminsky, and Leonid Dubrovinsky

\* E-mail: [nkorolev@amnh.org](mailto:nkorolev@amnh.org)

Perovskite supergroup

Monoclinic:  $C2/c$ ; structure determined

$a = 9.190(1)$ ,  $b = 5.2594(4)$ ,  $c = 21.846(4)$  Å,  
 $\beta = 97.84(2)^\circ$

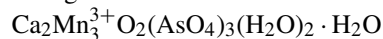
2.647(100), 2.643(67), 2.189(17), 2.152(46), 1.522(56), 1.521(30), 1.183(18), 1.178(24)

Type material is deposited in the collections of the American Museum of Natural History, 200 Central Park West, New York, NY 10024-5102, USA, catalogue no. AMNH#115649

How to cite: Korolev, N., Kiseeva, E. S., Aslandukova, A., Harlow, G. E., Ma, C., Weiss, Y., Kurnosov, A., Kaminsky, F. V., and Dubrovinsky, L.: Bernwoodite, IMA 2025-072, in: CNMNC Newsletter 91, Eur. J. Mineral., 38, <https://doi.org/10.5194/ejm-38-347-2026>, 2026.

#### IMA no. 2025-093

Georgeliuite



Geg

Jote mine, Pampa Larga district, Tierra Amarilla, Copiapó Province, Atacama Region, Chile (27°36'30" S, 70°09'23" W)

Xiangping Gu, Hexiong Yang\*, Linfei Qiu, Guang Fan, Robert A. Jenkins, Ronald B. Gibbs, and Robert T. Downs

\* E-mail: [hyang@arizona.edu](mailto:hyang@arizona.edu)

The Mn<sup>3+</sup> analogue of arseniosiderite  
Monoclinic: *Cm*; structure determined  
 $a = 11.3112(9)$ ,  $b = 20.163(1)$ ,  $c = 8.9858(7)$  Å,  
 $\beta = 100.539(7)^\circ$

8.803(10), 5.734(19), 3.345(23), 3.241(26), 2.930(21),  
2.803(61), 2.656(22), 2.520(20)

Type material is deposited in the collections of the University of Arizona Alfie Norville Gem & Mineral Museum, 115 N Church Ave Ste 121, Tucson, AZ 85701, USA, catalogue number 22747 (holotype), and the RRUFF Project, deposition number R250055 (cotype)

How to cite: Gu, X., Yang, H., Qiu, L., Fan, G., Jenkins, R. A., Gibbs, R. B., and Downs, R. T.: Georgeliuite, IMA 2025-093, in: CNMNC Newsletter 91, Eur. J. Mineral., 38, <https://doi.org/10.5194/ejm-38-347-2026>, 2026.

### IMA no. 2025-095a

Sombrereteite

NaCa<sub>3</sub>(Al<sub>7</sub>Si<sub>9</sub>)O<sub>32</sub>

Som

Sombrerete iron meteorite, found in 1958 at Cerro del Sombrerete, Zacatecas, Mexico (23°38' N, 103°40' W)

Xiangping Gu, Zuokai Ke, Hexiong Yang\*, Kai Qu, Guanghua Liu, Yixuan Liu, Yizhou Chen, Ran Gao, Qun Ai, Shuting Huang, Baihui Ma, and Yang Liu

\* E-mail: [hyang@arizona.edu](mailto:hyang@arizona.edu)

Chemically, the sodium analogue of wodegongjieite

Monoclinic: *C2/c*; structure determined

$a = 10.2358(1)$ ,  $b = 17.8056(3)$ ,  $c = 14.9349(3)$  Å,  $\beta = 90.420(1)^\circ$

4.429(73), 3.816(99), 3.743(100), 3.351(36), 3.272(48),  
2.854(68), 2.561(71), 1.866(21)

Type material is deposited in the collections of the Geological Museum of China, no. 16, Yangrou Hutong, Xisi, Beijing 100031, People's Republic of China, catalogue number GM-CTM2025019

How to cite: Gu, X., Ke, Z., Yang, H., Qu, K., Liu, G., Liu, Y., Chen, Y., Gao, R., Ai, Q., Huang, S., Ma, B., and Liu, Y.: Sombrereteite, IMA 2025-095a, in: CNMNC Newsletter 91, Eur. J. Mineral., 38, <https://doi.org/10.5194/ejm-38-347-2026>, 2026.

### IMA no. 2026-002

Leishmanite

Ba(H<sub>2</sub>O)<sub>4</sub>[(UO<sub>2</sub>)<sub>3</sub>O<sub>2</sub>(OH)<sub>3</sub>]<sub>2</sub> · 3H<sub>2</sub>O

Lhm

On the northern slope of the Grand Alou valley, south of the Dent de Nendaz (2463 m), Nendaz, Valais, Switzerland (46°08'40" N, 7°17'37" E)

Jakub Plášil\*, Radek Škoda, Stefan Ansermet, and Nicolas Meisser

\* E-mail: [plasil@fzu.cz](mailto:plasil@fzu.cz)

Closely related to billietite

Orthorhombic: *Pmn*2<sub>1</sub>; structure determined

$a = 12.079(2)$ ,  $b = 15.096(3)$ ,  $c = 7.155(2)$  Å

7.46(100), 6.09(10), 3.789(30), 3.601(20), 3.519(40),  
3.249(45), 3.186(60), 2.044(15)

Type material is deposited in the collections of the Department of Geology, State Museum of Natural Sciences (Naturéum), Anthropole, Dorigny, 1015 Lausanne, Switzerland, catalogue number MGL101918

How to cite: Plášil, J., Škoda, R., Ansermet, S., and Meisser, N.: Leishmanite, IMA 2026-002, in: CNMNC Newsletter 91, Eur. J. Mineral., 38, <https://doi.org/10.5194/ejm-38-347-2026>, 2026.

## 3 Nomenclature/classification proposals approved in March 2026

### IMA 25-B – stilpnomelane group: composition range, franklinphilite and ekmanite discredited

(Richard A. Eggleton, Penelope L. King, Frank Brink, Peter Self, and Aaron Dodd)

Proposal 25-B on the nomenclature of the stilpnomelane group is accepted. The general formula of minerals belonging to this group is  $A_4M_4[Si_{64}Al_8](O,(OH))_{216} \cdot nH_2O$ , where  $A = K, Na, Ca, \text{ and } Ba$ , and  $M = Fe^{2+}, Mn, Mg, Al, Fe^{3+}, \text{ and } Zn$ . The end-member formula of stilpnomelane is  $K_4Fe_{48}^{2+}[Si_{64}Al_8]O_{164}(OH)_{52} \cdot nH_2O$ , and lenilenapeite is redefined as an Mn analogue with the end-member formula  $K_4Mn_{48}^{2+}[Si_{64}Al_8]O_{164}(OH)_{52} \cdot nH_2O$ . Ekmanite is a stilpnomelane with minor Mn, and franklinphilite is a mixture of lenilenapeite and nelenite; both minerals are consequently discredited.

### IMA 26-A – definition of a gadolinite-(Y) neotype

(Dan Holtstam, Alice Taddei, Hans-Jürgen Förster, and Oona Appelt)

Proposal 26-A is accepted, and the neotype material for gadolinite-(Y) is redefined from the Ytterby locality, Sweden. The sample is stored in the collections of the Swedish Museum of Natural History, P.O. Box 50007, 10405 Stockholm, Sweden, catalogue no. GEO-NRM LK6893.

## 4 Other issues

### Polish-up of the IMA List of Minerals (second round)

After a similar action made some years ago (see CNMNC Newsletter 50), the IMA-CNMNC is making effective a number of minor changes in the ideal chemical formulae of mineral species. In most cases the change merely consists of the elimination of subordinate constituents occurring within the same parentheses together with the dominant

constituent. Minerals marked as Q (questionable) in the IMA List of Minerals were not considered since these deserve a more detailed re-appraisal. Similarly, minerals belonging to a supergroup for which the IMA-CNMNC approved a comprehensive report were left behind too as those formulae have already been discussed and agreed upon by a dedicated subcommittee. This is an executive decision taken by the IMA-CNMNC.

#### Aldridgeite

Current formula:  $\text{Cd}(\text{Cu},\text{Zn})_4(\text{SO}_4)_2(\text{OH})_6(\text{H}_2\text{O})_3$

New formula:  $\text{CdCu}_4(\text{SO}_4)_2(\text{OH})_6(\text{H}_2\text{O})_3$

[Cf. devilline:  $\text{CaCu}_4(\text{SO}_4)_2(\text{OH})_6(\text{H}_2\text{O})_3$ ]

#### Aluminocopiapite

Current formula:  $(\text{Al},\text{Mg})\text{Fe}_4^{3+}(\text{SO}_4)_6(\text{OH},\text{O})_2(\text{H}_2\text{O})_{14} \cdot 6\text{H}_2\text{O}$

New formula:  $\text{AlFe}_4^{3+}(\text{SO}_4)_6(\text{OH})(\text{H}_2\text{O})_{14} \cdot 6\text{H}_2\text{O}$

[Cf. magnesiocopiapite:  $\text{MgFe}_4^{3+}(\text{SO}_4)_6(\text{OH})_2(\text{H}_2\text{O})_{14} \cdot 6\text{H}_2\text{O}$ ]

#### Alumovesuvianite

Current formula:  $\text{Ca}_{19}\text{Al}(\text{Al}_{10}\text{Mg}_2)\text{Si}_{18}\text{O}_{69}(\text{OH})_9$

New formula:  $\text{Ca}_{19}\text{Al}(\text{Al}_{10}\text{Mg}_2)(\text{SiO}_4)_{10}(\text{Si}_2\text{O}_7)_4\text{O}(\text{OH})_9$

[Cf. manganvesuvianite:

$\text{Ca}_{19}\text{Mn}^{3+}(\text{Al}_{10}\text{Mg}_2)(\text{SiO}_4)_{10}(\text{Si}_2\text{O}_7)_4\text{O}(\text{OH})_9$ ]

#### Ankerite

Current formula:  $\text{Ca}(\text{Fe}^{2+},\text{Mg})(\text{CO}_3)_2$

New formula:  $\text{CaFe}^{2+}(\text{CO}_3)_2$

[Cf. dolomite:  $\text{CaMg}(\text{CO}_3)_2$ ]

#### Arsenbrackebuschite

Current formula:  $\text{Pb}_2(\text{Fe}^{3+},\text{Zn})(\text{AsO}_4)_2(\text{OH},\text{H}_2\text{O})$

New formula:  $\text{Pb}_2\text{Fe}^{3+}(\text{AsO}_4)_2(\text{OH})$

[Cf. feinglosite:  $\text{Pb}_2\text{Zn}(\text{AsO}_4)_2 \cdot \text{H}_2\text{O}$ ]

#### Azoprote

Current formula:  $\text{Mg}_2[(\text{Ti},\text{Mg}),\text{Fe}^{3+}]\text{O}_2(\text{BO}_3)$

New formula:  $\text{Mg}_2(\text{Ti}_{0.5}\text{Mg}_{0.5})\text{O}_2(\text{BO}_3)$

[Cf. ludwigite:  $\text{Mg}_2\text{Fe}^{3+}\text{O}_2(\text{BO}_3)$ ]

#### Bannisterite

Current formula:  $(\text{Ca},\text{K},\text{Na})(\text{Mn}^{2+},\text{Fe}^{2+})_{10}(\text{Si},\text{Al})_{16}\text{O}_{38}(\text{OH})_8 \cdot n\text{H}_2\text{O}$

New formula:  $\text{CaMn}_{10}^{2+}[(\text{Si}_{14}\text{Al}_2)\text{O}_{38}(\text{OH})_8] \cdot n\text{H}_2\text{O}$

[Cf. kayupovaite:  $\text{Na}_2\text{Mn}_{10}^{2+}[(\text{Si}_{14}\text{Al}_2)\text{O}_{38}(\text{OH})_8] \cdot 7\text{H}_2\text{O}$ ]

#### Barićite

Current formula:  $(\text{Mg},\text{Fe})_3(\text{PO}_4)_2(\text{H}_2\text{O})_8$

New formula:  $\text{Mg}_3(\text{PO}_4)_2(\text{H}_2\text{O})_8$

[Cf. vivianite:  $\text{Fe}_3^{2+}(\text{PO}_4)_2(\text{H}_2\text{O})_8$ ]

#### Barquillite

Current formula:  $\text{Cu}_2(\text{Cd},\text{Fe})\text{GeS}_4$

New formula:  $\text{Cu}_2\text{CdGeS}_4$

[Cf. briartite:  $\text{Cu}_2\text{FeGeS}_4$ ]

#### Borisenkoite

Current formula:  $\text{Cu}_3[(\text{V},\text{As})\text{O}_4]_2$

New formula:  $\text{Cu}_3(\text{VO}_4)_2$

[Cf. kayupovaite:  $\text{Cu}_3(\text{AsO}_4)_2$ ]

#### Bouazzerite

Current formula:  $\text{Bi}_6(\text{Mg},\text{Co})_{11}\text{Fe}_{14}(\text{AsO}_4)_{18}\text{O}_{12}(\text{OH})_4(\text{H}_2\text{O})_{86}$

New formula:  $\text{Bi}_6\text{Mg}_{11}\text{Fe}_{14}(\text{AsO}_4)_{18}\text{O}_{12}(\text{OH})_4(\text{H}_2\text{O})_{86}$

#### Byrudite

Current formula:  $(\text{Be},?)\text{V}^{3+}(\text{Ti})_3\text{O}_6$

New formula:  $\text{BeV}_2^{3+}\text{TiO}_6$

[Cf. verbierite:  $\text{BeCr}_2^{3+}\text{TiO}_6$ ]

#### Carbocernaite

Current formula:  $(\text{Sr},\text{Ce},\text{La})(\text{Ca},\text{Na})(\text{CO}_3)_2$

New formula:  $\text{SrCa}(\text{CO}_3)_2$

#### Chlorophoenicite

Current formula:  $(\text{Mn},\text{Mg},\text{Zn})_3\text{Zn}_2(\text{AsO}_4)(\text{OH},\text{O})_6$

New formula:  $\text{Mn}_3\text{Zn}_2(\text{OH})_6\text{As}[\text{O}_3(\text{OH})_3]$

[Cf. peterchinite:  $\text{Zn}_3\text{Zn}_2(\text{OH})_6\text{As}[\text{O}_3(\text{OH})_3]$ ]

#### Cyprine

Current formula:  $\text{Ca}_{19}\text{Cu}^{2+}(\text{Al},\text{Mg})_{12}\text{Si}_{18}\text{O}_{69}(\text{OH})_9$

New formula:  $\text{Ca}_{19}\text{Cu}^{2+}(\text{Al}_{11}\text{Mg})(\text{SiO}_4)_{10}(\text{Si}_2\text{O}_7)_4\text{O}(\text{OH})_9$

[Cf. magnesiovesuvianite:

$\text{Ca}_{19}\text{Mg}(\text{Al}_{11}\text{Mg})(\text{SiO}_4)_{10}(\text{Si}_2\text{O}_7)_4\text{O}(\text{OH})_9$ ]

#### Eckhardite

Current formula:  $(\text{Ca},\text{Pb})\text{Cu}^{2+}\text{Te}^{6+}\text{O}_5(\text{H}_2\text{O})$

New formula:  $\text{CaCu}^{2+}\text{Te}^{6+}\text{O}_5(\text{H}_2\text{O})$

#### Fluorvesuvianite

Current formula:  $\text{Ca}_{19}(\text{Al},\text{Mg})_{13}(\text{SiO}_4)_{10}(\text{Si}_2\text{O}_7)_4\text{O}(\text{F},\text{OH})_9$

New formula:  $\text{Ca}_{19}\text{Al}(\text{Al}_{10}\text{Mg}_2)(\text{SiO}_4)_{10}(\text{Si}_2\text{O}_7)_4\text{OF}_9$

[Cf. alumovesuvianite:

$\text{Ca}_{19}\text{Al}(\text{Al}_{10}\text{Mg}_2)(\text{SiO}_4)_{10}(\text{Si}_2\text{O}_7)_4\text{O}(\text{OH})_9$ ]

#### Fontarnauite

Current formula:  $(\text{Na},\text{K})_2(\text{Sr},\text{Ca})(\text{SO}_4)[\text{B}_5\text{O}_8(\text{OH})](\text{H}_2\text{O})_2$

New formula:  $\text{Na}_2\text{Sr}(\text{SO}_4)[\text{B}_5\text{O}_8(\text{OH})](\text{H}_2\text{O})_2$

#### Fritzscheite

Current formula:  $\text{Mn}^{2+}(\text{UO}_2)_2(\text{VO}_4,\text{PO}_4)_2 \cdot 4\text{H}_2\text{O}$

New formula:  $\text{Mn}^{2+}(\text{UO}_2)_2(\text{VO}_4)_2 \cdot 4\text{H}_2\text{O}$

[Cf. lehnerite:  $\text{Mn}^{2+}(\text{UO}_2)_2(\text{PO}_4)_2 \cdot 8\text{H}_2\text{O}$ ]

#### Gainesite

Current formula:  $\text{Na}_2(\text{Be},\text{Li})\text{Zr}_2(\text{PO}_4)_4 \cdot 1.5\text{H}_2\text{O}$

New formula:  $\text{Na}_2\text{BeZr}_2(\text{PO}_4)_4 \cdot 1.5\text{H}_2\text{O}$

## Hloušekite

Current formula:  $(\text{Ni},\text{Co})\text{Cu}_4(\text{AsO}_4)_2(\text{AsO}_3\text{OH})_2(\text{H}_2\text{O})_7 \cdot \text{H}_2\text{O}$   
 New formula:  $\text{NiCu}_4(\text{AsO}_4)_2(\text{AsO}_3\text{OH})_2(\text{H}_2\text{O})_8 \cdot \text{H}_2\text{O}$

## Hydrombobomkulite

Current formula:  $(\text{Ni},\text{Cu})\text{Al}_4(\text{NO}_3,\text{SO}_4)_2(\text{OH})_{12}(\text{H}_2\text{O})_{14}$   
 New formula:  $\text{NiAl}_4(\text{NO}_3)_2(\text{OH})_{12}(\text{H}_2\text{O})_{14}$

## Johnwalkite

Current formula:  $\text{K}(\text{Mn}^{2+},\text{Fe}^{3+})_2(\text{Nb},\text{Ta})\text{O}_2(\text{PO}_4)_2 \cdot 2(\text{H}_2\text{O},\text{OH})$   
 New formula:  $\text{KMn}_2^{2+}\text{NbO}_2(\text{PO}_4)_2(\text{H}_2\text{O})_2$   
 [Cf. olmsteadite:  $\text{KFe}_2^{2+}\text{NbO}_2(\text{PO}_4)_2(\text{H}_2\text{O})_2$ ]

## Laitakarite

Current formula:  $\text{Bi}_4(\text{Se},\text{S})_3$   
 New formula:  $\text{Bi}_4\text{Se}_3$   
 [Cf. ikonolite:  $\text{Bi}_4\text{S}_3$ ]

## Lasnierite

Current formula:  $(\text{Ca},\text{Sr})(\text{Mg},\text{Fe}^{2+})_2\text{Al}(\text{PO}_4)_3$   
 New formula:  $\text{CaMg}_2\text{Al}(\text{PO}_4)_3$

## Lucabindiite

Current formula:  $(\text{K},\text{NH}_4)\text{As}_4\text{O}_6(\text{Cl},\text{Br})$   
 New formula:  $\text{K}(\text{As}_2\text{O}_3)_2\text{Cl}$

## Lusernaite-(Y)

Current formula:  $\text{Y}_4\text{Al}(\text{CO}_3)_2(\text{OH},\text{F})_{11}(\text{H}_2\text{O})_4 \cdot 2\text{H}_2\text{O}$   
 New formula:  $\text{Y}_4\text{Al}(\text{CO}_3)_2(\text{OH})_{11}(\text{H}_2\text{O})_4 \cdot 2\text{H}_2\text{O}$

## Magnesiochlorophoenicite

Current formula:  $\text{Mg}_3\text{Zn}_2(\text{AsO}_4)(\text{OH},\text{O})_6$   
 New formula:  $\text{Mg}_3\text{Zn}_2(\text{OH})_6\text{As}[\text{O}_3(\text{OH})_3]$   
 [Cf. peterchinite:  $\text{Zn}_3\text{Zn}_2(\text{OH})_6\text{As}[\text{O}_3(\text{OH})_3]$ ]

## Magnesioneptunite

Current formula:  $\text{KNa}_2\text{Li}(\text{Mg},\text{Fe})_2\text{Ti}_2\text{Si}_8\text{O}_{24}$   
 New formula:  $\text{KNa}_2\text{LiMg}_2\text{Ti}_2\text{Si}_8\text{O}_{24}$   
 [Cf. neptunite:  $\text{KNa}_2\text{LiFe}_2^{2+}\text{Ti}_2\text{Si}_8\text{O}_{24}$ ]

## Magnesiorowlandite-(Y)

Current formula:  $\text{Y}_4(\text{Mg},\text{Fe})(\text{Si}_2\text{O}_7)_2\text{F}_2$   
 New formula:  $\text{Y}_4\text{Mg}(\text{Si}_2\text{O}_7)_2\text{F}_2$   
 [Cf. rowlandite-(Y):  $\text{Y}_4\text{Fe}^{2+}(\text{Si}_2\text{O}_7)_2\text{F}_2$ ]

## Mbobomkulite

Current formula:  $(\text{Ni},\text{Cu})\text{Al}_4(\text{NO}_3,\text{SO}_4)_2(\text{OH})_{12}(\text{H}_2\text{O})_3$   
 New formula:  $\text{NiAl}_4(\text{NO}_3)_2(\text{OH})_{12}(\text{H}_2\text{O})_3$

## Mccrillisite

Current formula:  $\text{NaCs}(\text{Be},\text{Li})\text{Zr}_2(\text{PO}_4)_4 \cdot 1-2\text{H}_2\text{O}$   
 New formula:  $\text{NaCsBeZr}_2(\text{PO}_4)_4 \cdot 1-2\text{H}_2\text{O}$

## Montroseite

Current formula:  $(\text{V}^{3+},\text{Fe}^{2+},\text{V}^{4+})\text{O}(\text{OH})$   
 New formula:  $\text{V}^{3+}\text{O}(\text{OH})$

## Murunskite

Current formula:  $\text{K}_2(\text{Cu},\text{Fe})_4\text{S}_4$   
 New formula:  $\text{K}_2(\text{Cu}_3^+\text{Fe}^{3+})\text{S}_4$   
 [Cf. thalcusite:  $\text{Tl}_2(\text{Cu}_3^+\text{Fe}^{3+})\text{S}_4$ ]

## Nordgauite

Current formula:  $\text{MnAl}_2(\text{PO}_4)_2(\text{F},\text{OH})_2(\text{H}_2\text{O})_4 \cdot \text{H}_2\text{O}$   
 New formula:  $\text{MnAl}_2(\text{PO}_4)_2\text{F}_2(\text{H}_2\text{O})_4 \cdot \text{H}_2\text{O}$   
 [Cf. kayrobertsonite:  $\text{MnAl}_2(\text{PO}_4)_2(\text{OH})_2(\text{H}_2\text{O})_4 \cdot 2\text{H}_2\text{O}$ ]

## Ohmilite

Current formula:  $\text{Sr}_3(\text{Ti},\text{Fe}^{3+})(\text{Si}_2\text{O}_6)_2(\text{O},\text{OH})(\text{H}_2\text{O})_2$   
 New formula:  $\text{Sr}_3\text{Ti}(\text{Si}_2\text{O}_6)_2\text{O}(\text{H}_2\text{O})_2$   
 [Cf. yuzuxiangite:  $\text{Sr}_3\text{Fe}^{3+}(\text{Si}_2\text{O}_6)_2(\text{OH})(\text{H}_2\text{O})_3$ ]

## Paraniite-(Y)

Current formula:  $(\text{Ca},\text{Y},\text{Dy})_2\text{Y}(\text{WO}_4)_2(\text{AsO}_4)$   
 New formula:  $\text{Ca}_2\text{Y}(\text{WO}_4)_2(\text{AsO}_4)$

## Paratacamite

Current formula:  $\text{Cu}_3(\text{Cu},\text{Zn})(\text{OH})_6\text{Cl}_2$   
 New formula:  $\text{Cu}_3\text{Cu}(\text{OH})_6\text{Cl}_2$

## Paratacamite-(Mg)

Current formula:  $\text{Cu}_3(\text{Mg},\text{Cu})(\text{OH})_6\text{Cl}_2$   
 New formula:  $\text{Cu}_3\text{Mg}(\text{OH})_6\text{Cl}_2$

## Paratacamite-(Ni)

Current formula:  $\text{Cu}_3(\text{Ni},\text{Cu})(\text{OH})_6\text{Cl}_2$   
 New formula:  $\text{Cu}_3\text{Ni}(\text{OH})_6\text{Cl}_2$

## Plumboagardite

Current formula:  $(\text{Pb},\text{REE},\text{Ca})\text{Cu}_6(\text{AsO}_4)_3(\text{OH})_6(\text{H}_2\text{O})_3$   
 New formula:  $\text{PbCu}_6(\text{AsO}_4)_2(\text{AsO}_3\text{OH})(\text{OH})_6(\text{H}_2\text{O})_3$   
 [Cf. zálesíite:  $\text{CaCu}_6(\text{AsO}_4)_2(\text{AsO}_3\text{OH})(\text{OH})_6(\text{H}_2\text{O})_3$ ]

## Potassiccarpholite

Current formula:  $\text{K}(\text{Mn}^{2+},\text{Li})_2\text{Al}_4\text{Si}_4\text{O}_{12}(\text{OH},\text{F})_8$   
 New formula:  $\text{K}(\text{Mn}^{2+}\text{Li})\text{Al}_4\text{Si}_4\text{O}_{12}(\text{OH})_8$

## Putzite

Current formula:  $(\text{Cu},\text{Ag})_8\text{GeS}_6$   
 New formula:  $\text{Cu}_8\text{GeS}_6$   
 [Cf. argyrodite:  $\text{Ag}_8\text{GeS}_6$ ]

## Serpierite

Current formula:  $\text{Ca}(\text{Cu},\text{Zn})_4(\text{SO}_4)_2(\text{OH})_6(\text{H}_2\text{O})_3$   
 New formula:  $\text{CaCu}_4(\text{SO}_4)_2(\text{OH})_6(\text{H}_2\text{O})_3$

## Thalcosite

Current formula:  $\text{Ti}_2(\text{Cu,Fe})_4\text{S}_4$ New formula:  $\text{Ti}_2(\text{Cu}_3^+\text{Fe}^{3+})\text{S}_4$ [Cf. bukovite:  $\text{Ti}_2(\text{Cu}_3^+\text{Fe}^{3+})\text{Se}_4$ ]

## Thorutite

Current formula:  $(\text{Th,U,Ca})\text{Ti}_2(\text{O,OH})_6$ New formula:  $\text{ThTi}_2\text{O}_6$ [Cf. brannerite:  $\text{UTi}_2\text{O}_6$ ]

## Yttrotungstite-(Ce)

Current formula:  $\text{CeW}_2\text{O}_6(\text{OH})_3$ New formula:  $\text{CeW}_2\text{O}_7(\text{OH})(\text{H}_2\text{O})$ [Cf. yttrotungstite-(Nd):  $\text{NdW}_2\text{O}_7(\text{OH})(\text{H}_2\text{O})$ ]

## Yttrotungstite-(Y)

Current formula:  $\text{Y}(\text{W,Fe,Si,Al,Ti})_2(\text{O,OH,H}_2\text{O})_9$ New formula:  $\text{YW}_2\text{O}_7(\text{OH})(\text{H}_2\text{O})$ [Cf. yttrotungstite-(Nd):  $\text{NdW}_2\text{O}_7(\text{OH})(\text{H}_2\text{O})$ ]

## Zincobriartite

Current formula:  $\text{Cu}_2(\text{Zn,Fe})(\text{Ge,Ga})\text{S}_4$ New formula:  $\text{Cu}_2\text{ZnGeS}_4$ [Cf. briartite:  $\text{Cu}_2\text{FeGeS}_4$ ]