

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

### Newsletter 79

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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 powder X-ray 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 *Mineralogical Magazine* 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

#### NEW MINERAL PROPOSALS APPROVED IN APRIL 2024

##### IMA No. 2023-121

Krügerite

$\text{BaCa}_6(\text{SiO}_4)_2[(\text{P}_{0.5}\text{S}_{0.5})\text{O}_4]_2\text{F}$

Kgr

Hatrum Complex, Negev desert, near Ye'elime Mt., Israel  
(31°14'22" N, 35°16'55" E)

Evgeny V. Galuskin\*, Georgia Cametti, Irina O. Galuskina,  
Yevgeny Vapnik and Grzegorz Zieliński

\*E-mail: [evgeny.galuskin@us.edu.pl](mailto:evgeny.galuskin@us.edu.pl)

Arctite supergroup

Trigonal:  $R\bar{3}m$ ; structure determined

$a = 7.1110(2)$ ,  $c = 25.3598(6)$  Å

8.453(45), 5.540(42), 4.417(38), 3.556(99), 3.277(67), 3.057(33),  
2.721(100), 1.778(34)

Type material is deposited in the collections of the Fersman Mineralogical Museum, Russian Academy of Sciences, Leninsky Prospekt 18-2, Moscow 115162, Russia, registration number 6086/1

How to cite: Galuskin, E.V., Cametti, G., Galuskina, I.O., Vapnik, Y. and Zieliński, G. (2024) Krügerite, IMA 2023-121. CNMNC Newsletter 79, *Mineralogical Magazine*, 88, <https://doi.org/10.1180/mgm.2024.45>

##### IMA No. 2023-122

Tarutinoite

$\text{Ag}_3\text{Pb}_7\text{Bi}_7\text{S}_{19}$

Trtn

Tarutinskoe deposit, 9.5 km south of the village of Tarutino,  
220 km south of Chelyabinsk, Cheshmensk district,

**Author for correspondence:** Marco Pasero, Email: [marco.pasero@unipi.it](mailto:marco.pasero@unipi.it)

**Cite this article:** Bosi F., Hatert F., Pasero M. and Mills S.J. (2024) Newsletter 79. *Mineralogical Magazine* 88, 510–513. <https://doi.org/10.1180/mgm.2024.45>

Chelyabinsk Oblast, Southern Urals, Russia (53°70'89" N, 61°02'90" E)

Anatoly V. Kasatkin\*, Cristian Biagioni, Fabrizio Nestola, Radek Škoda, Vladislav V. Gurzhiy, Atali A. Agakhanov and Aleksey M. Kuznetsov

\*E-mail: [anatoly.kasatkin@gmail.com](mailto:anatoly.kasatkin@gmail.com)

Lillianite homologous series

Monoclinic:  $C2/m$ ; structure determined

$a = 13.545(1)$ ,  $b = 4.1027(3)$ ,  $c = 32.481(4)$  Å,  $\beta = 96.433(9)^\circ$   
3.485(65), 3.403(49), 3.323(77), 3.306(50), 3.301(50), 2.934(63),  
2.908(100), 2.051(54)

Type material is deposited in the collections of the Fersman Mineralogical Museum, Russian Academy of Sciences, Leninskiy Prospekt 18-2, Moscow 115162, Russia, registration number 6088/1

How to cite: Kasatkin, A.V., Biagioni, C., Nestola, F., Škoda, R., Gurzhiy, V.V., Agakhanov, A.A. and Kuznetsov, A.M. (2024) Tarutinoite, IMA 2023-122. CNMNC Newsletter 79, *Mineralogical Magazine*, **88**, <https://doi.org/10.1180/mgm.2024.45>

#### IMA No. 2023-123

Cabrerite

$\text{NiMg}_2(\text{AsO}_4)_2 \cdot 8\text{H}_2\text{O}$

Cabr

Nickel mine, Cottonwood Canyon, Table Mountain district, Churchill Co., Nevada, USA (39°59'24" N, 117°54'27" W)

Anthony R. Kampf<sup>†</sup>, Paul M. Adams and Chi Ma

\*E-mail: [akampf@nhm.org](mailto:akampf@nhm.org)

The ordered intermediate phase between annabergite and hörnesite

Monoclinic:  $C2/m$ ; structure determined

$a = 10.205(1)$ ,  $b = 13.377(1)$ ,  $c = 4.7382(4)$  Å,  $\beta = 105.057(7)^\circ$   
7.920(34), 6.666(100), 4.369(65), 3.302(84), 2.987(88), 2.722  
(74), 2.314(44), 1.651(44)

Type material is deposited in the collections of the Natural History Museum of Los Angeles County, 900 Exposition Boulevard, Los Angeles, CA 90007, USA, catalogue number 65733

How to cite: Kampf, A.R., Adams, P.M. and Ma, C. (2024) Cabrerite, IMA 2023-123. CNMNC Newsletter 79, *Mineralogical Magazine*, **88**, <https://doi.org/10.1180/mgm.2024.45>

#### IMA No. 2023-124

Annivite-(Zn)

$\text{Cu}_6(\text{Cu}_4\text{Zn}_2)\text{Bi}_4\text{S}_{13}$

Anv-Zn

Eliš mine, Jáchymov ore district, Krušné hory Mountains, Czech Republic (50°22'28.230" N, 12°52'58.152" E)

Jiří Sejkora\*, Cristian Biagioni, Zdeněk Dolníček, Dalibor Velebil and Pavel Škácha

\*E-mail: [jiri.sejkora@nm.cz](mailto:jiri.sejkora@nm.cz)

Tetrahedrite group

Cubic:  $I\bar{4}3m$ ; structure determined

$a = 10.3545(6)$  Å  
5.177(7), 3.661(12), 2.989(100), 2.767(8), 2.589(22), 2.441(9),  
1.830(40), 1.561(20)

Type material is deposited in the collections of the Department of Mineralogy and Petrology, National Museum in Prague, Cirkusová 1740, 193 00 Praha 9, Czech Republic, catalogue number P1P 50/2023, and the Museo di Storia Naturale,

Università di Pisa, Via Roma 79, Calci (PI), Italy, catalogue number 20069

How to cite: Sejkora, J., Biagioni, C., Dolníček, Z., Velebil, D. and Škácha, P. (2024) Annivite-(Zn), IMA 2023-124. CNMNC Newsletter 79, *Mineralogical Magazine*, **88**, <https://doi.org/10.1180/mgm.2024.45>

#### IMA No. 2023-125

Domitrovicite

$\text{Zn}(\text{C}_2\text{H}_3\text{O}_3)_2 \cdot 2\text{H}_2\text{O}$

Dtv

At the western end of Pusch Ridge, Santa Catalina Mountains, north of Tucson, Pima Co., Arizona, USA (32°21'42" N, 110°57'30" W, 975 m a.s.l.)

Hexiong Yang\*, Anthony R. Kampf, Xiangping Gu, Warren Lazar, Ronald B. Gibbs and Robert T. Downs

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

The Zn analogue of stanevansite

Monoclinic:  $P2_1/c$ ; structure determined

$a = 11.4394(6)$ ,  $b = 5.8625(3)$ ,  $c = 12.5065(7)$ ,  $\beta = 91.256(3)^\circ$   
5.36(100), 4.79(43), 4.26(15), 3.827(28), 3.082(48), 2.830(17),  
2.550(15), 2.009(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 no. 22735 (holotype), and the RRUFF Project, deposition no. R230010 (cotype)

How to cite: Yang, H., Kampf, A.R., Gu, X., Lazar, W., Gibbs, R.B. and Downs, R.T. (2024) Domitrovicite, IMA 2023-125. CNMNC Newsletter 79, *Mineralogical Magazine*, **88**, <https://doi.org/10.1180/mgm.2024.45>

#### IMA No. 2023-126

Argentotennantite-(Fe)

$\text{Ag}_6(\text{Cu}_4\text{Fe}_2)\text{As}_4\text{S}_{13}$

Atnt-Fe

San Genaro mine, Castrovirreyna mining district, Castrovirreyna Province, Huancavelica, Peru (13°11'37" S, 75°08'57" W)

Jiří Sejkora\*, Dalibor Velebil, Cristian Biagioni and Zdeněk Dolníček

\*E-mail: [jiri.sejkora@nm.cz](mailto:jiri.sejkora@nm.cz)

Tetrahedrite group

Cubic:  $I\bar{4}3m$ ; structure determined

$a = 10.4365(6)$  Å  
7.380(9), 3.013(100), 2.789(5), 2.609(20), 2.460(5), 2.047(5),  
1.845(39), 1.573(21)

Type material is deposited in the collections of the Department of Mineralogy and Petrology, National Museum in Prague, Cirkusová 1740, 193 00 Praha 9, Czech Republic, catalogue number P1P 52/2023, and the Museo di Storia Naturale, Università di Pisa, Via Roma 79, Calci (PI), Italy, catalogue number 20070

How to cite: Sejkora, J., Velebil, D., Biagioni, C. and Dolníček, Z. (2024) Argentotennantite-(Fe), IMA 2023-126. CNMNC Newsletter 79, *Mineralogical Magazine*, **88**, <https://doi.org/10.1180/mgm.2024.45>

#### IMA No. 2024-001

Markwelchite

$\text{TlPbSbS}_3$

Mrw

Jas Roux deposit, La Chapelle-en-Valgaudemar, Gap, Hautes-Alpes, Provence-Alpes-Côte d'Azur, France (44°44'45" N, 6°19'18" E)

Luca Bindi\*, Cristian Biagioni, Hans-Jürgen Förster and Holger Georg Adelmann

\*E-mail: [luca.bindi@unifi.it](mailto:luca.bindi@unifi.it)

The Sb analogue of richardsollyite

Monoclinic:  $P2_1/c$ ; structure determined

$a = 8.9144(3)$ ,  $b = 8.4513(3)$ ,  $c = 8.6511(3)$  Å,  $\beta = 108.723(4)^\circ$   
3.88(100), 3.78(90), 3.29(90), 2.93(75), 2.73(85), 2.67(64), 2.63(70), 2.61(60)

Type material is deposited in the collections of the Natural History Museum, University of Florence, Via La Pira 4, I-50121 Firenze, Italy, catalogue number 3739

How to cite: Bindi, L., Biagioni, C., Förster, H.-J. and Adelmann, H.G. (2024) Markwelchite, IMA 2024-001. CNMNC Newsletter 79, *Mineralogical Magazine*, **88**, <https://doi.org/10.1180/mgm.2024.45>

## NEW MINERAL PROPOSALS APPROVED IN MAY 2024

### IMA No. 2023-086

Ertlite

$\text{NaAl}_3\text{Al}_6(\text{Si}_4\text{B}_2\text{O}_{18})(\text{BO}_3)_3(\text{OH})_3\text{O}$

Etl

In a granitic pegmatite, Sahatany Valley, Madagascar  
Jan Cempírek\*, Erik Jonsson, Lenka Skřápková, Radek Škoda, Renata Čopjaková, Lee A. Groat, Anthony R. Kampf, Aaron J. Lussier, Frank C. Hawthorne and Jakub Haifler

\*E-mail: [jcemp@sci.muni.cz](mailto:jcemp@sci.muni.cz)

Tourmaline supergroup

Trigonal:  $R3m$ ; structure determined

$a = 15.6509(8)$ ,  $c = 7.0406(5)$  Å  
6.248(34), 4.142(47), 3.913(86), 3.407(53), 2.901(72), 2.530(100), 2.002(48), 1.883(37)

Type material is deposited in the collections of the Swedish Museum of Natural History, Box 50007, SE-104 05 Stockholm, Sweden, catalogue number GEO-NRM 20180012, the Natural History Museum of Los Angeles County, 900 Exposition Blvd., Los Angeles, CA 90007, USA, catalogue number 76302, and the Department of Mineralogy and Petrography, Moravian Museum, Zelný trh 6, 659 37 Brno, Czech Republic, specimen numbers B12566 and B12567

How to cite: Cempírek, J., Jonsson, E., Skřápková, L., Škoda, R., Čopjaková, R., Groat, L.A., Kampf, A.R., Lussier, A.J., Hawthorne, F.C. and Haifler, J. (2024) Ertlite, IMA 2023-086. CNMNC Newsletter 79, *Mineralogical Magazine*, **88**, <https://doi.org/10.1180/mgm.2024.45>

### IMA No. 2023-108a

Modraite

$\text{Ca}_{19}\text{Fe}^{2+}\text{Al}_4(\text{Al}_6\text{Fe}_2^{2+})(\square_4)\square(\text{SiO}_4)_{10}(\text{Si}_2\text{O}_7)_4(\text{OH})_{10}$

Mdt

In a small unnamed valley in a forest of the Malé Karpaty Mountains, ca. 200 m southwest of Dolinkovský Hill, Harmónia settlement, Modra, Pezinok District, Bratislava Region, Slovakia (48°21'50" N, 17°18'43" E, 392 m a.s.l.)

Pavel Uher\*, Peter Bačík, Olena Rybnikova, Manfred Wildner, Marcel Miglierini, Eugen Libowitzky, Radek Škoda, Tomáš Vaculovič, Bronislava Lalinská-Voleková, Ľubica Puškelová, Ján Štubňa, Sergii Kurylo and Tomáš Mikuš

\*E-mail: [pavel.uher@uniba.sk](mailto:pavel.uher@uniba.sk)

Vesuvianite group

Tetragonal:  $P4/nnc$ ; structure determined

$a = 15.559(2)$ ,  $c = 11.804(2)$  Å  
3.474(13), 3.235(18), 2.949(29), 2.749(100), 2.593(59), 2.458(37), 1.625(16), 1.621(30)

Type material is deposited in the collections of the Slovak National Museum, Natural History Museum, Vajanského nábrežie 2, P.O. BOX 13, 81006 Bratislava, Slovakia, catalogue number M20413

How to cite: Uher, P., Bačík, P., Rybnikova, O., Wildner, M., Miglierini, M., Libowitzky, E., Škoda, R., Vaculovič, T., Lalinská-Voleková, B., Puškelová, L., Štubňa, J., Kurylo, S. and Mikuš, T. (2024) Modraite, IMA 2023-108a. CNMNC Newsletter 79, *Mineralogical Magazine*, **88**, <https://doi.org/10.1180/mgm.2024.45>

### IMA No. 2023-118a

Oboniobite

$\text{Mg}_4\text{Nb}_2\text{O}_9$

Obo

Bayan Obo polymetallic deposit, northern margin of the North China Craton (NCC), Inner Mongolia, China (41°47'44" N, 109°58'09" E)

Hai-Dong She, Hong-Rui Fan\*, Xiang-Ping Gu, Xiao-Chun Li, Kui-Feng Yang, Qi-Wei Wang, Hai-Long Jin and Biao Chen

\*E-mail: [fanhr@mail.iggcas.ac.cn](mailto:fanhr@mail.iggcas.ac.cn)

Loose chemical relationships with columbite-(Mg)

Trigonal:  $P\bar{3}c1$ ; structure determined

$a = 5.1804(2)$ ,  $c = 14.0768(6)$  Å  
4.469(72), 3.756(34), 2.759(100), 2.582(50), 1.888(40), 1.737(37), 1.526(36), 1.493(30)

Type material is deposited in the collections of the Geology Museum, Institute of Geology and Geophysics, Chinese Academy of Sciences, No. 19, Beitucheng Western Road, Chaoyang District, 100029 Beijing, People's Republic of China, catalogue numbers KDX075 (holotype) and M8237 (cotype), and the Geological Museum of China, No. 15, Yangrou Hutong, Xicheng District, Beijing 100034, People's Republic of China, catalogue number GMCTM2023012 (cotype)

How to cite: She, H.-D., Fan, H.-R., Gu, X.-P., Li, X.-C., Yang, K.-F., Wang, Q.-W., Jin, H.-L. and Chen, B. (2024) Oboniobite, IMA 2023-118a. CNMNC Newsletter 79, *Mineralogical Magazine*, **88**, <https://doi.org/10.1180/mgm.2024.45>

### IMA No. 2024-003

Miyawakiite-(Y)

$\square\text{Y}_4\text{Fe}_2(\text{Si}_8\text{O}_{20})(\text{CO}_3)_4(\text{H}_2\text{O})_3$

Myw-Y

In an abandoned pegmatite mine, Suishoyama, Iizaka, Kawamata, Fukushima Prefecture, Japan (37°40' N, 140°37' E)  
Daisuke Nishio-Hamane\*, Koichi Momma, Norimasa Shimobayashi, Masayuki Ohnishi and Toshinori Kobayashi

\*E-mail: [hamane@issp.u-tokyo.ac.jp](mailto:hamane@issp.u-tokyo.ac.jp)

New structure type

Tetragonal:  $I4/mcm$ ; structure determined

$a = 17.53637(9)$ ,  $c = 9.55702(8)$  Å  
12.338(67), 4.750(100), 3.431(68), 3.243(28), 2.903(42), 2.783(36), 2.472(35), 2.186(40)

Type material is deposited in the collections of the National Museum of Nature and Science, Tsukuba, Ibaraki 305-0005, Japan, specimen number NSM-M51975

How to cite: Nishio-Hamane, D., Momma, K., Shimobayashi, N., Ohnishi, M. and Kobayashi, T. (2024) Miyawakiite-(Y), IMA 2024-003. CNMNC Newsletter 79, *Mineralogical Magazine*, **88**, <https://doi.org/10.1180/mgm.2024.45>

IMA No. **2024-004**

Manganonewberyite

$\text{Mn}(\text{PO}_3\text{OH})(\text{H}_2\text{O})_3$

Mnew

Cassagna mine, Graveglia Valley, Ne, Genoa Province, Liguria, Italy (44°20'08" N, 9°28'31" E)

Anthony R. Kampf\*, Chi Ma and Fabrizio Castellaro

\*E-mail: [akampf@nhm.org](mailto:akampf@nhm.org)

The Mn analogue of newberyite

Orthorhombic: *Pbca*; structure determined

$a = 10.4273(6)$ ,  $b = 10.8755(8)$ ,  $c = 10.2126(4)$  Å

5.425(78), 4.767(82), 4.590(86), 3.743(52), 3.517(100), 3.143(55), 2.864(46), 2.782(60)

Type material is deposited in the collections of the Natural History Museum of Los Angeles County, 900 Exposition Boulevard, Los Angeles, CA 90007, USA, catalogue number 76311 (holotype) and 76312 (cotype)

How to cite: Kampf, A.R., Ma, C. and Castellaro, F. (2024) Manganonewberyite, IMA 2024-003. CNMNC Newsletter 79, *Mineralogical Magazine*, **88**, <https://doi.org/10.1180/mgm.2024.45>