



## CNMNC Newsletter

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

## Newsletter 77

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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 DECEMBER 2023

IMA No. 2022-121a

Lishiite

$(\text{Ca}_2\Box)\text{Sr}_3(\text{CO}_3)_5$

Lht

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

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Shaxiongdong carbonatite syenite complex, about 150 km southwest of Shiyan, Hubei Province, Zhushan County, China (32°09'14.37" N, 110°18'46.64" E)

Jie Dai\*, Tong Wang, Guowu Li, Guan Wang, Xiaodong Pan, Shangke Xie, Jing Ren, Kunyang Wang, Ting Li, Tao Wang, Jiale He, Jinsha Xu and Ganfu Shen

\*E-mail: [daijiegirl@163.com](mailto:daijiegirl@163.com)

Burbankite group

Hexagonal:  $P6_3mc$ ; structure determined

$a = 10.4898(5)$ ,  $c = 6.4167(5)$  Å

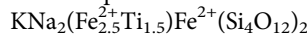
3.461(92), 3.069(74), 2.615(199), 2.365(62), 1.991(66), 1.936(63), 1.858(86), 1.663(61)

Type material is deposited in the collections of the Geological Museum of China, Xisi, Yangrou Hutong No. 15, Xicheng District, Beijing, People's Republic of China, catalogue number M16140

How to cite: Dai, J., Wang, T., Li, G., Wang, G., Pan, X., Xie, S., Ren, J., Wang, K., Li, T., Wang, T., He, J., Xu, J. and Shen, G. (2024) Lishiite, IMA 2022-121a. CNMNC Newsletter 77; *Mineralogical Magazine*, **88**, <https://doi.org/10.1180/mgm.2024.5>

#### IMA No. 2023-032a

Rotherkopfite



Rkp

Rother Kopf, Roth, near Gerolstein, Eifel Volcanic Fields, Rhineland-Palatinate, Germany (50°14'47" N, 6°37'23" E)

Anthony R. Kampf\*, Gerhard Möhn, Chi Ma, George Rossman, Joy Désor and Yunbin Guan

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

Neptunite group

Monoclinic: *C2/c*; structure determined

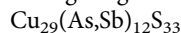
$a = 16.460(2)$ ,  $b = 12.5457(6)$ ,  $c = 10.0487(7)$  Å,  $\beta = 115.669(7)^\circ$   
9.63(100), 7.76(33), 3.339(38), 3.198(48), 2.952(67), 2.867(37), 2.179(35), 1.511(34)

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 76283

How to cite: Kampf, A.R., Möhn, G., Ma, C., Rossman, G., Désor, J. and Guan, Y. (2024) Rotherkopfite, IMA 2023-032a. CNMNC Newsletter 77; *Mineralogical Magazine*, **88**, <https://doi.org/10.1180/mgm.2024.5>

#### IMA No. 2023-046

Zhonghongite



Zhh

Cordilleran veins, in the Jiama deposit, about 70 km east of Lhasa, south Tibet, China (29°42' N, 91°45' E)

Shi-Ji Zheng\*, Xiang-Ping Gu, Zhong-Jie Bai and Zhong-Kun Zhang

\*E-mail: [zhengshiji@mail.gyig.ac.cn](mailto:zhengshiji@mail.gyig.ac.cn)

New structure type

Orthorhombic: *F2mm*; structure determined

$a = 10.37741(5)$ ,  $b = 14.69821(9)$ ,  $c = 36.7645(2)$  Å  
4.397(2), 3.483(3), 2.998(100), 2.596(27), 1.834(58), 1.566(25), 1.499(4), 1.298(3)

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 GMCTM2023002

How to cite: Zheng, S.-J., Gu, X.-P., Bai, Z.-J. and Zhang, Z.-K. (2024) Zhonghongite, IMA 2023-046. CNMNC Newsletter 77; *Mineralogical Magazine*, **88**, <https://doi.org/10.1180/mgm.2024.5>

#### IMA No. 2023-074

Ehrigite



Ehg

Good Hope gold mine, Hedley district, British Columbia, Canada (49°19'54" N, 120°00'48" W)

Cristiana L. Ciobanu\*, Nigel J. Cook, Jie Yao, Ashley Slattery and Benjamin Wade

\*E-mail: [cristiana.ciobanu@adelaide.edu.au](mailto:cristiana.ciobanu@adelaide.edu.au)

Tetradymite group

Trigonal: *R $\bar{3}m$*

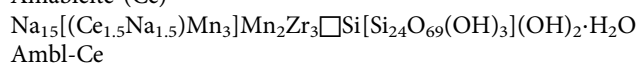
$a = 4.519(6)$ ,  $c = 65.18(2)$  Å  
3.266(100), 2.362(38), 2.260(38), 1.858(21), 1.633(12), 1.487(15), 1.435(18), 1.323(12)

Type material is deposited in the collections of the South Australian Museum, North Terrace, Adelaide, SA 5000, Australia, catalogue number G35384

How to cite: Ciobanu, C.L., Cook, N.J., Yao, J., Slattery, A. and Wade, B. (2024) Ehrigite, IMA 2023-074. CNMNC Newsletter 77; *Mineralogical Magazine*, **88**, <https://doi.org/10.1180/mgm.2024.5>

#### IMA No. 2023-075

Amableite-(Ce)



Ambl-Ce

Demix-Varennes quarry, Saint-Amable sill, Lajemmerais RCM,

Montérégie, Québec, Canada (45°40'01" N, 73°20'35" W)

Nikita V. Chukanov\*, Andrey A. Zolotarev, Christof Schäfer, Dmitry A. Varlamov, Igor V. Pekov, Marina F. Vigasina, Dmitry I. Belakovskiy, Sergey M. Aksenov, Svetlana A. Vozchikova and Sergey N. Britvin

\*E-mail: [nikchukanov@yandex.ru](mailto:nikchukanov@yandex.ru)

Eudialyte group

Trigonal: *R3*; structure determined

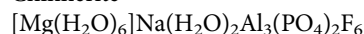
$a = 14.1340(3)$ ,  $c = 30.378(1)$  Å  
11.34(51), 7.06(76), 6.00(32), 4.312(63), 3.783(38), 3.538(43), 2.963(84), 2.837(100)

Type material is deposited in the collections of the Fersman Mineralogical Museum, Russian Academy of Sciences, Leninskiy Prospekt 18-2, Moscow 119071, Russia, registration number 6921/1

How to cite: Chukanov, N.V., Zolotarev, A.A., Schäfer, C., Varlamov, D.A., Pekov, I.V., Vigasina, M.F., Belakovskiy, D.I., Aksenov, S.M., Vozchikova, S.A. and Britvin, S.N. (2024) Amableite-(Ce), IMA 2023-075. CNMNC Newsletter 77; *Mineralogical Magazine*, **88**, <https://doi.org/10.1180/mgm.2024.5>

#### IMA No. 2023-083

Chinnerite



Chin

Penrice quarry, 2 km north of Angaston, South Australia, Australia

Peter Elliott, Ian E. Grey\*, Stephanie Boer, Anthony R. Kampf, Colin M. MacRae, Alexander Glenn and Cameron Davidson

\*E-mail: [ian.grey@csiro.au](mailto:ian.grey@csiro.au)

Chemically and structurally related to penriceite

Monoclinic: *P2/m*; structure determined

$a = 9.863(3)$ ,  $b = 6.946(1)$ ,  $c = 12.345(2)$  Å,  $\beta = 96.85(3)^\circ$   
12.42(76), 7.95(48), 5.73(61), 5.29(35), 4.98(25), 2.990(48), 2.862(100), 2.735(33)

Type material is deposited in the collections of the South Australian Museum, North Terrace, Adelaide, SA 5000, Australia, catalogue number G35383 (holotype), and the Natural History Museum of Los Angeles County, 900

Exposition Boulevard, Los Angeles, CA 90007, USA, catalogue number 76301 (cotype)

How to cite: Elliott, P., Grey, I.E., Boer, S., Kampf, A.R., MacRae, C.M., Glenn, A. and Davidson, C. (2024) Chinnerite, IMA 2023-083. CNMNC Newsletter 77; *Mineralogical Magazine*, **88**, <https://doi.org/10.1180/mgm.2024.5>

#### IMA No. 2023-084

Bayanoboite-(Y)

$\text{Ba}_2\text{Y}(\text{CO}_3)_2\text{F}_3$

Byb-Y

Bayan Obo deposit (main pit), Baotou City, Inner Mongolia, China, (41°47' N, 109°57' E)

Yuan Xue, Ningyue Sun, Guowu Li\*, Jinhua Hao, Peng Liu, Wenlei Song, Xianhua Li, Junfeng Shen, Li Yang, Zhaojing Wang, Wenxiang Meng, Guoying Yan, Yonggang Zhao and Yun Liu

\*E-mail: [liguowu@cugb.edu.cn](mailto:liguowu@cugb.edu.cn)

New structure type

Orthorhombic: *Pbcn*; structure determined

$a = 9.4528(4)$ ,  $b = 6.9499(2)$ ,  $c = 11.7638(5)$  Å

5.011(31), 3.712(100), 3.475(22), 3.216(56), 2.789(35), 2.193(21), 1.961(33), 1.853(15)

Type material is deposited in the collections of the Geological Museum of China, Xisi, Yangrou Hutong No. 15, Xicheng District, Beijing, People's Republic of China, catalogue number GMCTM2023008 (holotype), and the Crystal Structure Laboratory, China University of Geosciences, Beijing 100083, People's Republic of China, catalogue number BYEB-2 (cotype)

How to cite: Xue, Y., Sun, N., Li, G., Hao, J., Liu, P., Song, W., Li, X., Shen, J., Yang, L., Wang, Z., Meng, W., Yan, G., Zhao, Y. and Liu, Y. (2024) Bayanoboite-(Y), IMA 2023-084. CNMNC Newsletter 77; *Mineralogical Magazine*, **88**, <https://doi.org/10.1180/mgm.2024.5>

#### IMA No. 2023-085

Skogbyite

$\text{Zr}(\text{Mg}_2\text{Mn}_4^{3+})\text{SiO}_{12}$

Skb

Långban deposit, Filipstad, Värmland, Sweden (59°51'19" N, 14°15'53" E)

Erik Jonsson\*, Ulf Hålenius, Jaroslaw Majka and Ferdinando Bosi

\*E-mail: [erik.jonsson@sgu.se](mailto:erik.jonsson@sgu.se)

The Mg analogue of gatedralite

Tetragonal: *I4<sub>1</sub>/acd*; structure determined

$a = 9.4914(4)$ ,  $c = 18.9875(10)$  Å

5.480(12), 2.740(100), 2.373(11), 2.178(7), 2.163(6), 1.678(31), 1.431(13), 1.089(6)

Type material is deposited in the collections of the Swedish Museum of Natural History, P.O. Box 50 007, SE-10405 Stockholm, Sweden, catalogue number GEO-NRM20230033

How to cite: Jonsson, E., Hålenius, U., Majka, J. and Bosi, F. (2024) Skogbyite, IMA 2023-085. CNMNC Newsletter 77; *Mineralogical Magazine*, **88**, <https://doi.org/10.1180/mgm.2024.5>

#### IMA No. 2023-087

Désorite

$\text{Pb}_2(\text{Fe}_6^{3+}\text{Zn})\text{O}_2(\text{PO}_4)_4(\text{OH})_8$

Dso

Schöne Aussicht mine, Dernbach, Westerwaldkreis, Rhineland-Palatinate, Germany (50°27'14" N, 7°46'20" E)

Anthony R. Kampf\*, Gerhard Möhn and Chi Ma

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

New structure type

Triclinic: *P $\bar{1}$* ; structure determined

$a = 5.4389(7)$ ,  $b = 9.324(1)$ ,  $c = 10.093(1)$  Å,  $\alpha = 109.024(8)$ ,  $\beta = 90.521(6)$ ,  $\gamma = 97.588(7)^\circ$

9.492(72), 4.584(100), 3.687(59), 3.307(79), 3.183(90), 2.850(79), 2.707(97), 2.452(50)

Type material is deposited in the collections of Natural History Museum of Los Angeles County, 900 Exposition Boulevard, Los Angeles, CA 90007, USA, catalogue number 76300

How to cite: Kampf, A.R., Möhn, G. and Ma, C. (2024) Désorite, IMA 2023-087. CNMNC Newsletter 77; *Mineralogical Magazine*, **88**, <https://doi.org/10.1180/mgm.2024.5>

#### IMA No. 2023-089

Lebedevite

$\text{K}_4\text{Na}_{14}\text{Cu}_{14}\text{O}_8(\text{AsO}_4)_8\text{Cl}_6$

Ldv

Arsenatnaya fumarole, Second scoria cone of the Northern Breakthrough of the Great Tolbachik Fissure Eruption, Tolbachik volcano, Kamchatka peninsula, Far-Eastern Region, Russia (55°41' N, 160°14' E, 1200 m a.s.l.)

Natalia N. Koshlyakova\*, Igor V. Pekov, Atali A. Agakhanov, Emma Bullock, Natalia V. Zubkova, Marina F. Vigasina, Sergey N. Britvin, Peter C. Burns, Robert M. Hazen and Elena S. Zhitova

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

Structurally related to arsmirandite and lehmannite

Tetragonal: *I4/mmm*; structure determined

$a = 15.0019(5)$ ,  $c = 11.2048(5)$  Å

10.65(67), 9.03(83), 5.33(61), 2.996(58), 2.675(59), 2.597(100), 2.335(40), 1.923(44)

Type material is deposited in the collections of the Fersman Mineralogical Museum, Russian Academy of Sciences, Leninskiy Prospekt 18-2, Moscow 119071, Russia, registration number 6050/1

How to cite: Koshlyakova, N.N., Pekov, I.V., Agakhanov, A.A., Bullock, E., Zubkova, N.V., Vigasina, M.F., Britvin, S.N., Burns, P.C., Hazen, R.M. and Zhitova, E.S. (2024) Lebedevite, IMA 2023-089. CNMNC Newsletter 77; *Mineralogical Magazine*, **88**, <https://doi.org/10.1180/mgm.2024.5>

#### IMA No. 2023-090

Mampsisite

$\text{Ca}_4\text{Al}_2(\text{CO}_3)(\text{OH})_{12}\cdot 5\text{H}_2\text{O}$

Mmp

Ca. 2 km southeast of the Hatrurim Junction (road no. 31), Hatrurim Basin, Negev Desert, Israel (31°12'30" N, 35°15'30" E)

Sergey N. Britvin\*, Mikhail N. Murashko, Vladimir N. Bocharov, Natalia S. Vlasenko, Oleg S. Vereshchagin and Yevgeny Vapnik

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

Hydrotalcite supergroup

Triclinic: *P $\bar{1}$* ; structure determined

$a = 5.7834(2)$ ,  $b = 9.9274(3)$ ,  $c = 15.0972(4)$  Å,  $\alpha = 87.198(2)$ ,  $\beta = 89.805(2)$ ,  $\gamma = 89.967(2)^\circ$

7.58(100), 4.124(8), 3.774(37), 2.845(11), 2.724(14), 2.514(20), 2.451(20), 2.330(14)

Type material is deposited in the collections of the Fersman Mineralogical Museum, Russian Academy of Sciences, Leninskiy Prospekt 18-2, Moscow 119071, Russia, registration number 6061/1

How to cite: Britvin, S.N., Murashko, M.N., Bocharov, V.N., Vlasenko, N.S., Vereshchagin, O.S. and Vapnik, Y. (2024) Mampsisite, IMA 2023-090. CNMNC Newsletter 77; *Mineralogical Magazine*, **88**, <https://doi.org/10.1180/mgm.2024.5>

#### IMA No. 2023-091

Xenotime-(Gd)

Gd(PO<sub>4</sub>)

Xtm-Gd

Zimná Voda vein, Slovenské Rudohorie Mts., 5.6 km south of the village of Prakovce and 400 m northwest of Troháňka bivouac shelter, Košice Region, Slovakia (48°46'01" N, 20°54'47" E, 950 m a.s.l.)

Martin Ondrejka\*, Peter Bačík, Juraj Majzlan, Pavel Uher, Štefan Ferenc, Martin Števkó, Mária Čaplovičová, Stanislava Milovská, Tomáš Mikuš, Christiane Rößler, Christian Matthes and Alexandra Molnárová

\*E-mail: [martin.ondrejka@uniba.sk](mailto:martin.ondrejka@uniba.sk)

Xenotime group

Tetragonal: *I*<sub>4</sub>/*amd*

*a* = 6.9589(5), *c* = 6.0518(6) Å

4.566(43), 3.479(100), 2.768(18), 2.578(63), 2.460(19), 2.166(20), 1.839(19), 1.780(53)

Type material is deposited in the collections of the Slovak National Museum, Natural History Museum, Vajanského nábrežie 2, PO Box 13, 81006 Bratislava, Slovakia, catalogue number M20412

How to cite: Ondrejka, M., Bačík, P., Majzlan, J., Uher, P., Ferenc, Š., Števkó, M., Čaplovičová, M., Milovská, S., Mikuš, T., Rößler, C., Matthes, C. and Molnárová, A. (2024) Xenotime-(Gd), IMA 2023-091. CNMNC Newsletter 77; *Mineralogical Magazine*, **88**, <https://doi.org/10.1180/mgm.2024.5>

#### IMA No. 2023-092

Selenodantopaite

Ag<sub>5</sub>Bi<sub>13</sub>Se<sub>22</sub>

Sdnt

On the dumps of the Princ Evžen deposit, near Potůčky, Krušné hory Mountains, Czech Republic (50°25'34" N, 12°45'03" E)

Jiří Sejkora\*, Cristian Biagioni, Emil Makovický and Vladimír Šrein

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

The Se analogue of dantopaite

Monoclinic: *C*2/*m*; structure determined

*a* = 13.670(4), *b* = 4.140(1), *c* = 19.282(6) Å, β = 106.38(111)°  
3.700(31), 3.525(38), 3.397(14), 3.359(33), 3.062(21), 3.037(27), 2.936(100), 2.892(30)

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 P1P 22/2023, and the Museo di Storia Naturale, Università di Pisa, Via Roma 79, Calci (PI), Italy, catalogue number 20068  
How to cite: Sejkora, J., Biagioni, C., Makovický, E. and Šrein, V. (2024) Selenodantopaite, IMA 2023-092. CNMNC Newsletter

77; *Mineralogical Magazine*, **88**, <https://doi.org/10.1180/mgm.2024.5>

#### IMA No. 2023-094

Lednevite

Cu[PO<sub>3</sub>(OH)]·H<sub>2</sub>O

Led

Murzinskoe Au deposit, Krasnoshchyokovskiy District, Altai Krai, Western Siberia, Russia (51°35'44" N, 82°36'34" E)

Anatoly V. Kasatkin\*, Natalia V. Zubkova, Vladislav V. Gurzhiy, Radek Škoda, Fabrizio Nestola, Atali A. Agakhanov, Nikita V. Chukanov, Dmitry I. Belakovskiy and Dalibor Všianský

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

Known synthetic analogue

Monoclinic: *P*<sub>2</sub><sub>1</sub>/*a*; structure determined

*a* = 8.6459(6), *b* = 6.3951(4), *c* = 6.8210(5) Å, β = 93.866(2)°  
5.135(100), 4.648(33), 3.241(28), 3.095(49), 3.002(20), 2.891(27), 2.775(53), 2.568(29)

Type material is deposited in the collections of the Fersman Mineralogical Museum, Russian Academy of Sciences, Leninskiy Prospekt 18-2, Moscow 119071, Russia, registration number 6047/1

How to cite: Kasatkin, A.V., Zubkova, N.V., Gurzhiy, V.V., Škoda, R., Nestola, F., Agakhanov, A.A., Chukanov, N.V., Belakovskiy, D.I. and Všianský, D. (2024) Lednevite, IMA 2023-094. CNMNC Newsletter 77; *Mineralogical Magazine*, **88**, <https://doi.org/10.1180/mgm.2024.5>

### NEW MINERAL PROPOSALS APPROVED IN JANUARY 2024

#### IMA No. 2019-027a

Geuerite

Ag<sub>2</sub>Tl<sub>4</sub>Pb<sub>4</sub>As<sub>22</sub>S<sub>40</sub>

Geu

Lengenbach quarry, Binntal, Valais, Switzerland (46°21'54" N, 8°13'15" E)

Dan Topa\*, Uwe Kolitsch and Chris Stanley

\*E-mail: [dan.topa@nhm-wien.ac.at](mailto:dan.topa@nhm-wien.ac.at)

Sartorite homologous series

Monoclinic: *P*<sub>2</sub><sub>1</sub>/*c*; structure determined

*a* = 8.521(2), *b* = 8.005(2), *c* = 25.031(5) Å, β = 100.56(3)°  
3.806(52), 3.650(90), 3.005(49), 2.971(76), 2.871(58), 2.756(100), 2.740(97), 2.130(60)

Type material is deposited in the collections of the Mineralogisch-Petrographische Abteilung, Naturhistorisches Museum, Burgring 7, A-1010 Wien, Austria, catalogue number NHMW-MIN-O1177

How to cite: Topa, D., Kolitsch, U. and Stanley, C. (2024) Geuerite, IMA 2019-027a. CNMNC Newsletter 77; *Mineralogical Magazine*, **88**, <https://doi.org/10.1180/mgm.2024.5>

#### IMA No. 2019-071

Reckibachite

Ag<sub>2</sub>Pb<sub>12</sub>As<sub>14</sub>Sb<sub>4</sub>S<sub>40</sub>

Rek

Reckibach, Binntal, Valais, Switzerland (46°21'38" N, 8°11'26" E)

Dan Topa\*, Berthold Stoeger, Uwe Kolitsch, Ralph Cannon and Chris Stanley

\*E-mail: [dan.topa@nhm-wien.ac.at](mailto:dan.topa@nhm-wien.ac.at)

Chemically and structurally related to rathite  
 Monoclinic:  $P2_1/c$ ; structure determined  
 $a = 8.479(2)$ ,  $b = 7.946(2)$ ,  $c = 25.261(5)$  Å,  $\beta = 100.54(3)^\circ$   
 $3.671(66)$ ,  $3.103(61)$ ,  $3.007(64)$ ,  $2.969(100)$ ,  $2.745(94)$ ,  $2.727(79)$ ,  $2.329(56)$ ,  $2.120(80)$   
 Type material is deposited in the collections of the Mineralogisch-Petrographische Abteilung, Naturhistorisches Museum, Burgring 7, A-1010 Wien, Austria, catalogue number NHMW-MIN-O1786  
 How to cite: Topa, D., Stoeger, B., Kolitsch, U., Cannon, R. and Stanley, C. (2024) Reckibachite, IMA 2019-071. CNMNC Newsletter 77; *Mineralogical Magazine*, **88**, <https://doi.org/10.1180/mgm.2024.5>

#### IMA No. 2021-022a

Cafeosite  
 $\text{Ca}_4\text{Fe}_3^{2+}\text{Fe}_2^{3+}\square\text{O}_6\text{S}_4$   
 Cfo  
 Dhofar 225, a carbonaceous chondrite recovered in the desert of Oman  
 Marina A. Ivanova\*, Sergey N. Britvin, Roza I. Gulyaeva, Sofia A. Petrova, Nina G. Zinovieva, Vladimir V. Kozlov and Stanislav N. Tyushnyakov  
 \*E-mail: [meteorite2000@mail.ru](mailto:meteorite2000@mail.ru)  
 Known synthetic analogue  
 Orthorhombic: *Cmce*  
 $a = 17.4856(9)$ ,  $b = 11.1516(5)$ ,  $c = 11.1543(5)$  Å  
 $2.784(25)$ ,  $2.653(30)$ ,  $2.343(100)$ ,  $2.182(16)$ ,  $1.969(57)$ ,  $1.507(35)$ ,  $1.461(13)$ ,  $1.392(14)$   
 Type material is deposited in the collections of the Vernadsky Institute of Geochemistry and Analytical Chemistry, Russian Academy of Sciences, Kosygin St. 19, Moscow 119991, Russia, catalogue number 16185  
 How to cite: Ivanova, M.A., Britvin, S.N., Gulyaeva, R.I., Petrova, S.A., Zinovieva, N.G., Kozlov, V.V. and Tyushnyakov, S.N. (2024) Cafeosite, IMA 2021-022a. CNMNC Newsletter 77; *Mineralogical Magazine*, **88**, <https://doi.org/10.1180/mgm.2024.5>

#### IMA No. 2022-106a

Nipeiite-(Ce)  
 $\text{Ce}_9\text{Fe}^{3+}(\text{SiO}_4)_6[\text{SiO}_3(\text{OH})](\text{OH})_3$   
 Npe-Ce  
 In a REE deposit, Taiping Town, southeast Henan Province, China ( $33^\circ39'10''$  N,  $111^\circ41'33''$  E)  
 Kai Qu\*, Fabrizio Nestola, Cristian Biagioni, Xianzhang Sima, Radek Škoda, Anatoly Kasatkin, Ting Li, Guang Fan, Junping Ren, Wenlong Tang, Jinghui Li and Yanjuan Wang  
 \*E-mail: [qukai\\_tcgs@foxmail.com](mailto:qukai_tcgs@foxmail.com)  
 Cerite supergroup  
 Trigonal:  $R3c$ ; structure determined  
 $a = 10.897(2)$ ,  $c = 38.739(8)$  Å  
 $4.585(34)$ ,  $3.508(47)$ ,  $3.347(37)$ ,  $3.146(28)$ ,  $2.994(100)$ ,  $2.872(30)$ ,  $2.724(88)$ ,  $1.977(35)$   
 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 M16141  
 How to cite: Qu, K., Nestola, F., Biagioni, C., Sima, X., Škoda, R., Kasatkin, A., Li, T., Fan, G., Ren, J., Tang, W., Li, J. and Wang, Y. (2024) Nipeiite-(Ce), IMA 2022-106a. CNMNC Newsletter 77; *Mineralogical Magazine*, **88**, <https://doi.org/10.1180/mgm.2024.5>

#### IMA No. 2023-088

Moragite  
 $\text{Ca}_3\text{TiSi}_2(\text{Al}_2\text{Si})\text{O}_{14}$   
 Mora  
 Hatrurim Basin, near Ye'elim Mount, Negev Desert, Israel ( $31^\circ14'21.9''$  N,  $35^\circ16'54.8''$  E)  
 Irina Galuskina\*, Biljana Krüger, Yevgeny Vapnik and Evgeny Galuskin  
 \*E-mail: [irina.galuskina@us.edu.pl](mailto:irina.galuskina@us.edu.pl)  
 The Al analogue of qeltite  
 Trigonal:  $P321$ ; structure determined  
 $a = 7.958(4)$ ,  $c = 4.948(1)$  Å  
 $6.892(30)$ ,  $3.101(77)$ ,  $2.828(100)$ ,  $2.605(19)$ ,  $2.305(33)$ ,  $2.297(16)$ ,  $1.911(14)$ ,  $1.794(22)$   
 Type material is deposited in the collections of the Fersman Mineralogical Museum, Russian Academy of Sciences, Leninskiy Prospekt 18-2, Moscow 119071, Russia, registration number 6060/1  
 How to cite: Galuskina, I., Krüger, B., Vapnik, Y. and Galuskin, E. (2024) Moragite, IMA 2023-088. CNMNC Newsletter 77; *Mineralogical Magazine*, **88**, <https://doi.org/10.1180/mgm.2024.5>

#### IMA No. 2023-095

Kvačekite  
 $\text{NiSbSe}$   
 Kvč  
 Bukov mine, near the village of Bukov, 35 km southeast of Nové Město, Moravě, Vysočina Region, Czech Republic ( $49^\circ27'27.333''$  N,  $16^\circ13'43.224''$  E)  
 Petr Pauliš, Zdeněk Dolníček, Jiří Sejkora\*, Ondřej Pour, František Laufek, Jana Ulmanová and Anna Vymazalová  
 \*E-mail: [jiri.sejkora@nm.cz](mailto:jiri.sejkora@nm.cz)  
 The Se analogue of ullmannite  
 Cubic:  $P2_13$ ; structure determined  
 $a = 6.0901(1)$  Å  
 $3.046(11)$ ,  $2.724(100)$ ,  $2.487(71)$ ,  $1.863(39)$ ,  $1.689(16)$ ,  $1.628(29)$ ,  $1.522(7)$ ,  $1.329(13)$   
 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 P1P 26/2023  
 How to cite: Pauliš, P., Dolníček, Z., Sejkora, J., Pour, O., Laufek, F., Ulmanová, J. and Vymazalová, A. (2024) Kvačekite, IMA 2023-095. CNMNC Newsletter 77; *Mineralogical Magazine*, **88**, <https://doi.org/10.1180/mgm.2024.5>

#### IMA No. 2023-096

Ferriphoxite  
 $[(\text{NH}_4)_2\text{K}(\text{H}_2\text{O})][\text{Fe}^{3+}(\text{HPO}_4)_2(\text{C}_2\text{O}_4)]$   
 Fphx  
 Rowley mine (125-foot level), about 30 km NNW of Gila Bend, Maricopa Co., Arizona, USA ( $33^\circ02'57''$  N,  $113^\circ01'50''$  W)  
 Anthony R. Kampf\*, Chi Ma, Frank C. Hawthorne and Joe Marty  
 \*E-mail: [akampf@nhm.org](mailto:akampf@nhm.org)  
 Same structural units as in carboferriphoxite (IMA No. 2023-097; this Newsletter)  
 Monoclinic:  $P2_1/c$ ; structure determined  
 $a = 11.389(5)$ ,  $b = 6.352(3)$ ,  $c = 18.716(9)$  Å,  $\beta = 102.887(9)^\circ$   
 $11.178(36)$ ,  $9.202(100)$ ,  $8.058(47)$ ,  $5.520(65)$ ,  $4.614(32)$ ,  $3.191(65)$ ,  $3.149(36)$ ,  $3.014(46)$

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 numbers 76303 (holotype) and 76304 (cotype)

How to cite: Kampf, A.R., Ma, C., Hawthorne, F.C. and Marty, J. (2024) Ferriphoxite, IMA 2023-096. CNMNC Newsletter 77; *Mineralogical Magazine*, **88**, <https://doi.org/10.1180/mgm.2024.5>

#### IMA No. 2023-097

Carboferriphoxite

$[(\text{NH}_4)\text{K}(\text{H}_2\text{CO}_3)][\text{Fe}^{3+}(\text{HPO}_4)(\text{H}_2\text{PO}_4)(\text{C}_2\text{O}_4)]$

Cfphx

Rowley mine (125-foot level), about 30 km NNW of Gila Bend, Maricopa Co., Arizona, USA (33°02'57" N, 113°01'50" W)

Anthony R. Kampf\*, Chi Ma, Frank C. Hawthorne and Joe Marty

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

Same structural units as in ferriphoxite (IMA No. 2023-096; this Newsletter)

Triclinic:  $P\bar{1}$ ; structure determined

$a = 6.4405(3)$ ,  $b = 9.399(5)$ ,  $c = 11.839(6)$  Å,  $\alpha = 95.763(10)$ ,  $\beta = 92.314(10)$ ,  $\gamma = 100.665(8)^\circ$

11.83(100), 9.17(62), 4.13(21), 3.806(26), 3.200(28), 3.154(75), 3.043(32), 2.842(27)

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 numbers 76304 (holotype) and 76303 (cotype)

How to cite: Kampf, A.R., Ma, C., Hawthorne, F.C. and Marty, J. (2024) Carboferriphoxite, IMA 2023-097. CNMNC Newsletter 77; *Mineralogical Magazine*, **88**, <https://doi.org/10.1180/mgm.2024.5>

#### IMA No. 2023-098

Manganohatertite

$\text{NaNaCa}(\text{MnFe}^{3+})(\text{AsO}_4)_3$

Mnhht

Arsenatnaya fumarole, Second scoria cone of the Northern Breakthrough of the Great Tolbachik Fissure Eruption, Tolbachik volcano, Kamchatka peninsula, Far-Eastern Region, Russia (55°41' N, 160°14' E, 1200 m a.s.l.)

Natalia N. Koshlyakova\*, Igor V. Pekov, Atali A. Agakhanov, Emma Bullock, Dmitry I. Belakovskiy, Natalia V. Zubkova, Nikita V. Chukanov, Sergey N. Britvin, Maria O. Bulakh, Peter C. Burns, Robert M. Hazen and Elena S. Zhitova

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

Alluaudite supergroup

Monoclinic:  $C2/c$ ; structure determined

$a = 12.4557(4)$ ,  $b = 13.0156(3)$ ,  $c = 6.7289(2)$  Å,  $\beta = 113.662(4)^\circ$   
6.58(24), 5.72(20), 3.670(35), 3.245(34), 3.023(27), 2.903(24), 2.856(100), 2.660(36)

Type material is deposited in the collections of the Fersman Mineralogical Museum, Russian Academy of Sciences, Leninskiy Prospekt 18-2, Moscow 119071, Russia, registration number 6055/1

How to cite: Koshlyakova, N.N., Pekov, I.V., Agakhanov, A.A., Bullock, E., Belakovskiy, D.I., Zubkova, N.V., Chukanov, N.V., Britvin, S.N., Bulakh, M.O., Burns, P.C., Hazen, R.M. and Zhitova, E.S. (2024) Manganohatertite, IMA 2023-098. CNMNC Newsletter 77; *Mineralogical Magazine*, **88**, <https://doi.org/10.1180/mgm.2024.5>

#### IMA No. 2023-099

Giuşcăite

$\text{Ag}_2\text{Tl}_4\text{Pb}_4\text{As}_{20}\text{Sb}_2\text{S}_{40}$

Gic

Lengenbach quarry, Binntal, Valais, Switzerland (46°21'54" N, 8°13'15" E)

Dan Topa\*, Berthold Stoeger, Uwe Kolitsch, Philippe Roth, Frank Keutsch and Chris Stanley

\*E-mail: [dan.topa@nhm-wien.ac.at](mailto:dan.topa@nhm-wien.ac.at)

Sartorite homologous series

Monoclinic:  $Pn$ ; structure determined

$a = 8.545(3)$ ,  $b = 8.207(3)$ ,  $c = 24.768(8)$  Å,  $\beta = 99.625(3)^\circ$

12.21(55), 4.21(47), 3.890(63), 3.646(100), 2.987(62), 2.861(52), 2.785(76), 2.778(69)

Type material is deposited in the collections of the Mineralogisch-Petrographische Abteilung, Naturhistorisches Museum, Burggring 7, A-1010 Wien, Austria, catalogue number NHMW-MIN-O2595

How to cite: Topa, D., Stoeger, B., Kolitsch, U., Roth, P., Keutsch, G. and Stanley, C. (2024) Giuşcăite, IMA 2023-099. CNMNC Newsletter 77; *Mineralogical Magazine*, **88**, <https://doi.org/10.1180/mgm.2024.5>

#### IMA No. 2023-100

Ferrimuirite

$\text{Ba}_{10}(\text{Ca}_2\text{Fe}_2^{3+})[\text{Si}_8\text{O}_{24}]\text{O}_2\text{Cl}_{10}$

Fmui

Gun claim, Itsi Mountain, Yukon, Canada (62°50'50" N, 130°00'51" W)

Inna Lykova\*, Ralph Rowe, Glenn Poirier, Henrik Friis and Stephanie Barnes

\*E-mail: [ilykova@nature.ca](mailto:ilykova@nature.ca)

The  $\text{Fe}^{3+}$  analogue of muirite

Tetragonal:  $P4mm$ ; structure determined

$a = 13.98983(8)$ ,  $c = 5.58187(6)$  Å

4.364(46), 3.702(49), 3.579(50), 3.499(33), 3.298(39), 2.899(100), 2.791(39), 2.729(42)

Type material is deposited in the collections of the Canadian Museum of Nature, 240 McLeod Street, Ottawa, Ontario, Canada, catalogue number CMNMC 91404

How to cite: Lykova, I., Rowe, R., Poirier, G., Friis, H. and Barnes, S. (2024) Ferrimuirite, IMA 2023-100. CNMNC Newsletter 77; *Mineralogical Magazine*, **88**, <https://doi.org/10.1180/mgm.2024.5>

#### OTHER ISSUES

##### *Bukovite: revised formula*

Recently, a paper was published [*Journal of Geosciences*, **68**, 179–184 (2023)], in which the chemical formula of bukovite was revised from  $\text{Cu}_4\text{Tl}_2\text{Se}_4$  to  $(\text{Cu}_3\text{Fe})\text{Tl}_2\text{Se}_4$  based on a single-crystal structural study. From these data it was shown that copper and thallium occur in bukovite as  $\text{Cu}^+$  and  $\text{Tl}^+$ ; therefore the occurrence of some  $\text{Fe}^{3+}$  partially substituting for  $\text{Cu}^+$  at the unique  $M$  site is necessary for charge balance requirements. This represents a further case of valency-imposed double site occupancy. The chemical formula of bukovite has been modified in the IMA List of Minerals accordingly. This is an executive decision taken by the CNMNC officers.

**Renaming of *straßmannite* to *strassmannite***

It was agreed to modify the name *straßmannite* to *strassmannite*, with “double s” instead of ß – the so-called “Eszett” which is peculiar to the German alphabet. This is in keeping with a recent CNMNC resolution [*Mineralogical Magazine*, **87**, 225–232 (2023)] which aims at rationalising the mineralogical nomenclature by abolishing Greek letters as well as Arabic and Roman numerals

from mineral names. *Straßmannite* represented the unique case among mineral names in which the Eszett was employed instead of double s. Therefore, for the sake of analogy with *fleisstalite*, *giesenite*, *günterblasseite*, *mössbauerite*, *phosphorrösslerite* and *rösslerite*, the mineral *straßmannite* – which was approved only six years ago – is now renamed *strassmannite*. This is an executive decision taken by the CNMNC officers.