



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

### Newsletter 55

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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

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 web site.

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 2020

IMA No. 2019-128

Ammoniotinsleyite

$(\text{NH}_4)\text{Al}_2(\text{PO}_4)_2(\text{OH}) \cdot 2\text{H}_2\text{O}$

In a guano deposit on the lower part of the steep southern slope of Pabellón de Pica Mountain, near Chanabaya village, Iquique Province, Tarapacá Region, Chile (20°54'55"S, 70°08'25"W)

Nikita V. Chukanov\*, Gerhard Möhn, Igor V. Pekov, Natalia V. Zubkova, Dmitry A. Ksenofontov, Dmitry I. Belakovskiy, Svetlana A. Vozchikova, Sergey N. Britvin and Joy Desor

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

The  $\text{NH}_4$ -dominant analogue of tinsleyite

Monoclinic:  $P2_1/n$ ; structure determined

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$a = 9.5871(1)$ ,  $b = 9.6089(1)$ ,  $c = 9.6467(1)$  Å,  $\beta = 103.446(1)^\circ$   
7.50(23), 6.71(79), 5.947(100), 4.676(36), 3.032(28), 2.958(25),  
2.846(22), 2.635(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 5510/1

How to cite: Chukanov, N.V., Möhn, G., Pekov, I.V., Zubkova, N.V., Ksenofontov, D.A., Belakovskiy, D.I., Vozchikova, S.A., Britvin, S.N. and Desor, J. (2020) Ammoniotinsleyite, IMA 2019-128. CNMNC Newsletter No. 55; *Mineralogical Magazine*, 84, <https://doi.org/10.1180/mgm.2020.39>

IMA No. 2019-129

Tomamaeite

$\text{Cu}_3\text{Pt}$

As inclusions in platinum-group mineral (PGM) grain from the coast, Tomamae town, Hokkaido, Japan (44°17'09"N, 141°38'58"E)

Daisuke Nishio-Hamane\* and Katsuyuki Saito

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

The Pt analogue of auricupride

Cubic:  $Pm\bar{3}m$

$a = 3.683(2) \text{ \AA}$

2.596(35), 2.123(100), 1.843(96), 1.646(28), 1.303(42)

Type material is deposited in the mineralogical collections of the National Museum of Nature and Science, Tsukuba, Japan, specimen number NSM-47328

How to cite: Nishio-Hamane, D. and Saito, K. (2020) Tomamaeite, IMA 2019-129. CNMNC Newsletter No. 55; *Mineralogical Magazine*, **84**, <https://doi.org/10.1180/mgm.2020.39>

#### IMA No. 2019-130

Pokhodyashinite

$\text{Cu}_2\text{Tl}_3\text{Sb}_5\text{As}_2\text{S}_{13}$

Vorontsovskoe gold deposit, ca. 13 km S of the city of Krasnotur'insk, Sverdlovskaya Oblast', Northern Urals, Russia ( $59^\circ 38' 52''\text{N}$ ,  $60^\circ 12' 55''\text{E}$ )

Anatoly V. Kasatkin\*, Emil Makovicky, Jakub Plášil, Radek Škoda, Atali A. Agakhanov and Mikhail V. Tsyganko

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

New structure type

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

$a = 7.996(2)$ ,  $b = 11.882(2)$ ,  $c = 14.061(3) \text{ \AA}$ ,  $\alpha = 109.80(2)$ ,  $\beta = 90.04(2)$ ,  $\gamma = 99.68(2)^\circ$

3.836(53), 3.834(55), 3.674(100), 3.463(97), 2.996(67), 2.994(73), 2.847(41), 2.750(98)

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 5517/1

How to cite: Kasatkin, A.V., Makovicky, E., Plášil, J., Škoda, R., Agakhanov, A.A. and Tsyganko, M.V. (2020) Pokhodyashinite, IMA 2019-130. CNMNC Newsletter No. 55; *Mineralogical Magazine*, **84**, <https://doi.org/10.1180/mgm.2020.39>

#### IMA No. 2019-131

Trebiskyite

$\text{Na}_3\text{Mg}_2[\text{TiV}_9\text{O}_{28}] \cdot 22\text{H}_2\text{O}$

Pickett Corral mine, Bull Canyon, Montrose Co., Colorado, USA ( $38^\circ 11' 43''\text{N}$ ,  $108^\circ 50' 36''\text{W}$ )

Travis A. Olds\*, Anthony R. Kampf, Mark A. Cooper, Paul M. Adams and Joe Marty

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

New structure type

Monoclinic:  $P2_1/c$ ; structure determined

$a = 9.478(4)$ ,  $b = 21.426(11)$ ,  $c = 11.267(5) \text{ \AA}$ ,  $\beta = 114.572(7)^\circ$   
10.73(87), 9.24(100), 8.52(78), 7.99(52), 3.294(18), 3.056(26), 2.855(18), 2.752(23)

Cotype material is deposited in the mineralogical collections of the Natural History Museum of Los Angeles County, 900 Exposition Boulevard, Los Angeles, CA 90007, USA, catalogue numbers 74521, 74522, 74523 and 74524

How to cite: Olds, T.A., Kampf, A.R., Cooper, M.A., Adams, P.M. and Marty, J. (2020) Trebiskyite, IMA 2019-131. CNMNC Newsletter No. 55; *Mineralogical Magazine*, **84**, <https://doi.org/10.1180/mgm.2020.39>

#### IMA No. 2019-132

Pyradoketosite

$\text{Ag}_3\text{SbS}_3$

Sant'Olga tunnel, Monte Arsiccio mine, Stazzema (LU), Apuan Alps, Tuscany, Italy ( $43^\circ 58'\text{N}$ ,  $10^\circ 17'\text{E}$ )

Cristian Biagioni\*, Luca Bindi, Yves Moëlo, Christopher J. Stanley and Federica Zaccarini

\*E-mail: [cristian.biagioni@unipi.it](mailto:cristian.biagioni@unipi.it)

A polymorph of  $\text{Ag}_3\text{SbS}_3$  after pyrrargyrite and pyrostilpnite

Monoclinic:  $P2_1/n$ ; structure determined

$a = 13.751(1)$ ,  $b = 6.9350(6)$ ,  $c = 19.555(2) \text{ \AA}$ ,  $\beta = 94.807(4)^\circ$   
6.4(w), 3.381(mw), 3.035(s), 2.505(mw), 2.441(mw), 2.160(mw), 1.912(mw), 1.878(mw)

Type material is deposited in the mineralogical collections of the Museo di Storia Naturale, Università di Pisa, Via Roma 79, Calci (PI), Italy, catalogue number 19913

How to cite: Biagioni, C., Bindi, L., Moëlo, Y., Stanley, C.J. and Zaccarini, F. (2020) Pyradoketosite, IMA 2019-132. CNMNC Newsletter No. 55; *Mineralogical Magazine*, **84**, <https://doi.org/10.1180/mgm.2020.39>

#### IMA No. 2019-133

Nioboheftetjernite

$\text{ScNbO}_4$

Befanamo, 80 km N of Antananarivo, along upper Betsiboka River, Analamanga, Madagascar

Inna Lykova\*, Ralph Rowe, Glenn Poirier, Andrew M. McDonald and Gerald Giester

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

Wolframite group

Monoclinic:  $P2_1/c$ ; structure determined

$a = 4.7092(3)$ ,  $b = 5.6531(4)$ ,  $c = 5.0530(4) \text{ \AA}$ ,  $\beta = 90.453(3)^\circ$   
4.722(22), 3.776(22), 3.628(44), 2.961(100), 2.938(83), 2.534(18), 2.472(30), 1.445(21)

Type material is deposited in the mineralogical collections of the Canadian Museum of Nature, 240 McLeod Street, Ottawa, Ontario, Canada, catalogue number CMNMC 51710

How to cite: Lykova, I., Rowe, R., Poirier, G., McDonald, A.M. and Giester, G. (2020) Nioboheftetjernite, IMA 2019-133. CNMNC Newsletter No. 55; *Mineralogical Magazine*, **84**, <https://doi.org/10.1180/mgm.2020.39>

#### IMA No. 2019-134

Natrosulfatourea

$\text{Na}_2(\text{SO}_4)[\text{CO}(\text{NH}_2)_2]$

Rowley mine (125-foot level), ca. 20 km NW of Theba, Maricopa Co., Arizona, USA ( $33^\circ 02' 57''\text{N}$ ,  $113^\circ 01' 50''\text{W}$ )

Anthony R. Kampf\*, Aaron J. Celestian, Barbara P. Nash and Joe Marty

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

New structure type

Orthorhombic:  $Pbcn$ ; structure determined

$a = 5.5918(4)$ ,  $b = 18.181(1)$ ,  $c = 6.7179(5) \text{ \AA}$   
9.08(100), 5.34(36), 4.179(77), 3.765(34), 3.047(61), 2.835(29), 2.792(29), 2.599(33)

Cotype material is deposited in the mineralogical collections of the Natural History Museum of Los Angeles County, 900 Exposition Boulevard, Los Angeles, CA 90007, USA, catalogue numbers 74491 and 74492

How to cite: Kampf, A.R., Celestian, A.J., Nash, B.P. and Marty, J. (2020) Natrosulfatourea, IMA 2019-134. CNMNC

Newsletter No. 55; *Mineralogical Magazine*, **84**, <https://doi.org/10.1180/mgm.2020.39>

IMA No. **2019-135**

Arsenotučekite  
 $\text{Ni}_{18}\text{Sb}_3\text{AsS}_{16}$   
 Tsangli chromite deposit, Othrys ophiolite, Greece  
 Federica Zaccarini\*, Luca Bindi, Basilios Tsikouras, Tassos Grammatikopoulos, Christopher J. Stanley and Giorgio Garuti  
 \*E-mail: [federica.zaccarini@unileoben.ac.at](mailto:federica.zaccarini@unileoben.ac.at)  
 Hauchecornite group  
 Tetragonal:  $I4/mmm$ ; structure determined  
 $a = 9.7856(3)$ ,  $c = 10.7582(6)$  Å  
 3.560(56), 3.094(85), 2.682(81), 2.357(96), 2.188(75), 1.810(100), 1.751(91), 1.730(47)  
 Type material is deposited in the mineralogical collections of the Natural History Museum, Cromwell Road, London SW7 5BD, United Kingdom, catalogue number BM 2020,1  
 How to cite: Zaccarini, F., Bindi, L., Tsikouras, B., Grammatikopoulos, T., Stanley, C.J. and Garuti, G. (2020) Arsenotučekite, IMA 2019-135. CNMNC Newsletter No. 55; *Mineralogical Magazine*, **84**, <https://doi.org/10.1180/mgm.2020.39>

IMA No. **2019-136**

Richardsite  
 $\text{Zn}_2\text{CuGaS}_4$   
 Merelani mines, Lelatema Mountains, Simanjiro District, Manyara Region, Tanzania  
 Luca Bindi and John A. Jaszczak  
 \*E-mail: [luca.bindi@unifi.it](mailto:luca.bindi@unifi.it)  
 Stannite group  
 Tetragonal:  $I42m$ ; structure determined  
 $a = 5.3626(2)$ ,  $c = 10.5873(5)$  Å  
 3.084(100), 1.898(20), 1.882(40), 1.614(20), 1.600(10), 1.092(10)  
 Type material is deposited in the mineralogical collections of the Museo di Storia Naturale, Università di Firenze, Via La Pira 4, I-50121, Firenze, Italy, catalogue number 3555/I  
 How to cite: Bindi, L. and Jaszczak, J.A. (2020) Arsenotučekite, IMA 2019-135. CNMNC Newsletter No. 55; *Mineralogical Magazine*, **84**, <https://doi.org/10.1180/mgm.2020.39>

**NEW MINERAL PROPOSALS APPROVED IN MAY 2020**

IMA No. **2020-001**

Heamanite-(Ce)  
 $(\text{K}_{0.5}\text{Ce}_{0.5})\text{TiO}_3$   
 As inclusions in a diamond from the Gahcho Kué mine (5034 pipe), Northwest Territories, Canada (63°26'04"N, 109°11'10"W)  
 Chiara Anzolini\*, William Siva-Jothy, Andrew J. Locock, Fabrizio Nestola, Tonci Balić-Žunić, Matteo Alvaro, Thomas Stachel and D. Graham Pearson  
 E-mail: [anzolini@ualberta.ca](mailto:anzolini@ualberta.ca)  
 Perovskite group  
 Cubic:  $Pm\bar{3}m$ ; structure determined  
 $a = 3.9129(9)$  Å  
 2.764(100), 2.259(7), 1.954(31), 1.596(42), 1.382(20), 1.236(15), 1.128(8), 1.045(19)

Type material is deposited in the mineralogical collections of the Royal Ontario Museum, 100 Queen's Park, Toronto, ON M5S 2C6, Canada, catalogue number M59970

How to cite: Anzolini, C., Siva-Jothy, W., Locock, A.J., Nestola, F., Balić-Žunić, T., Alvaro, M., Stachel, T. and Pearson, D.G. (2020) Heamanite-(Ce), IMA 2020-001. CNMNC Newsletter No. 55; *Mineralogical Magazine*, **84**, <https://doi.org/10.1180/mgm.2020.39>

IMA No. **2020-002**

Priscillagrewite-(Y)  
 $\text{YCa}_2\text{Zr}_2\text{Al}_3\text{O}_{12}$   
 Daba marble quarry, Tulul Al Hammam area, Hatrurim Complex, Jordan (31°32'31"N, 36°10'19"E)  
 Irina Galuskina\*, Evgeny Galuskin, Yevgeny Vapnik, Grzegorz Zeliński and Krystian Prusik  
 \*E-mail: [irina.galuskina@us.edu.pl](mailto:irina.galuskina@us.edu.pl)  
 Garnet supergroup  
 Cubic:  $Ia\bar{3}d$   
 $a = 12.50(3)$  Å  
 4.420(100), 3.126(82), 2.796(36), 2.552(86), 2.452(11), 2.283(12), 2.028(9), 1.977(40)  
 Type material is deposited in the collections of the Fersman Mineralogical Museum, Russian Academy of Sciences, Leninskiy Prospekt 18/k, Moscow 115162, Russia, catalogue number 5540/1  
 How to cite: Galuskina, I., Galuskin, E., Vapnik, Y., Zeliński, G. and Prusik, K. (2020) Priscillagrewite-(Y), IMA 2020-002. CNMNC Newsletter No. 55; *Mineralogical Magazine*, **84**, <https://doi.org/10.1180/mgm.2020.39>

IMA No. **2020-003**

Manganoarrojadite-(KNa)  
 $\text{KNa}_5\text{MnFe}_{13}\text{Al}(\text{PO}_4)_{11}(\text{PO}_3\text{OH})(\text{OH})_2$   
 Palermo No. 1 mine, Grafton Co., New Hampshire, USA (43°45'04"N, 71°53'22"W)  
 Inna Lykova\*, Ralph Rowe, Glenn Poirier, Henrik Friis and Kate Helwig  
 \*E-mail: [ilykova@nature.ca](mailto:ilykova@nature.ca)  
 Arrojadite group  
 Monoclinic:  $Cc$ ; structure determined  
 $a = 16.5345(3)$ ,  $b = 10.0406(2)$ ,  $c = 24.6261(5)$  Å,  $\beta = 105.891(2)^\circ$   
 5.902(24), 5.025(24), 3.401(21), 3.208(47), 3.048(100), 2.853(20), 2.758(24), 2.704(70)  
 Type material is deposited in the mineralogical collections of the Canadian Museum of Nature, 240 McLeod Street, Ottawa, Ontario K2P 2R1, Canada, catalogue number CMNMC 47194  
 How to cite: Lykova, I., Rowe, R., Poirier, G., Friis, H. and Helwig, K. (2020) Manganoarrojadite-(KNa), IMA 2020-003. CNMNC Newsletter No. 55; *Mineralogical Magazine*, **84**, <https://doi.org/10.1180/mgm.2020.39>

IMA No. **2020-005**

Crocobelonite  
 $\text{CaFe}_2^3+\text{O}(\text{PO}_4)_2$   
 In paralavas exposed in phosphorite quarry, Daba-Siwaqa pyrometamorphic complex, Transjordan Plateau, Jordan (31°21'52"N, 36°10'55"E)

Sergey N. Britvin\*, Mikhail N. Murashko, Maria G. Krzhizhanovskaya, Natalia S. Vlasenko, Oleg S. Vereshchagin, Yevgeny Vapnik and Dmitrii V. Pankin

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

New structure type

Orthorhombic: *Pnma*; structure determined

$a = 14.2757(1)$ ,  $b = 6.3832(1)$ ,  $c = 7.3169(1)$  Å

6.54(16), 5.12(26), 3.549(100), 3.200(50), 2.912(19), 2.869(40), 2.662(21), 2.264(20)

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 5559/1

How to cite: Britvin, S.N., Murashko, M.N., Krzhizhanovskaya, M.G., Vlasenko, N.S., Vereshchagin, O.S., Vapnik, Y. and Pankin, D.V. (2020) Crocobelonite, IMA 2020-005. CNMNC Newsletter No. 55; *Mineralogical Magazine*, **84**, <https://doi.org/10.1180/mgm.2020.39>

#### IMA No. 2020-006

Bimbowrieite

$\text{NaMgFe}_5^{3+}(\text{PO}_4)_4(\text{OH})_6 \cdot 2\text{H}_2\text{O}$

White Rock No. 2 quarry, Bimbowrie Conservation Park, 24 km N of Olary, South Australia, Australia (32°04'S, 140°19'E)

Peter Elliott and Anthony R. Kampf

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

Dufrénite group

Monoclinic: *C2/c*; structure determined

$a = 25.995(5)$ ,  $b = 5.151(1)$ ,  $c = 13.892(3)$  Å,  $\beta = 111.61(3)^\circ$

12.3(63), 5.04(100), 3.443(96), 3.234(93), 3.919(84), 2.884(60), 2.433(61), 1.586(65)

Type material is deposited in the mineralogical collections of the South Australian Museum, North Terrace, Adelaide, South Australia 5000, Australia, registration number G34867  
How to cite: Elliott, P. and Kampf, A.R. (2020) Bimbowrieite, IMA 2020-006. CNMNC Newsletter No. 55; *Mineralogical Magazine*, **84**, <https://doi.org/10.1180/mgm.2020.39>

#### IMA No. 2020-007

Plumboperloffite

$\text{PbMn}_2^{2+}\text{Fe}_2^{3+}(\text{PO}_4)_3(\text{OH})_3$

In the dumps of the Wiperaminga Hill West Quarry, Boolcoomatta Reserve, Olary Province, South Australia, Australia (31°57'42"S, 140°27'34"E)

Peter Elliott and Anthony R. Kampf

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

The Pb analogue of perloffite

Monoclinic: *P2<sub>1</sub>/m*; structure determined

$a = 9.176(2)$ ,  $b = 12.340(3)$ ,  $c = 5.009(1)$  Å,  $\beta = 101.01(3)^\circ$

5.105(40), 4.583(30), 3.158(100), 2.950(42), 2.738(58), 2.205(30), 1.992(29), 1.938(57)

Type material is deposited in the mineralogical collections of the South Australian Museum, North Terrace, Adelaide, South Australia 5000, Australia, registration number G34868  
How to cite: Elliott, P. and Kampf, A.R. (2020) Plumboperloffite, IMA 2020-007. CNMNC Newsletter No. 55; *Mineralogical Magazine*, **84**, <https://doi.org/10.1180/mgm.2020.39>

#### NOMENCLATURE/CLASSIFICATION PROPOSALS APPROVED IN MAY 2020

##### IMA 20-A: Discreditation of surkhobite

Proposal 20-A is accepted. Surkhobite is discredited as it is identical to perraultite which has priority.