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

NEWSLETTER 21

New minerals and nomenclature modifications approved in 2014

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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 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 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 JUNE 2014

IMA No. 2014-014
Zincomenite
ZnSeO₃
Northern fumarole field, First 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 asl)
Igor V. Pekov*, Vasiliy O. Yapaskurt, Sergey N. Britvin, Nikita V. Chukanov and Evgeny G. Sidorov
*E-mail: igorpekov@mail.ru
Known synthetic analogue
Orthorhombic: Pbcn
a = 7.199(1), b = 6.238(1), c = 12.006(2) Å
Type material is deposited in the collections of the Fersman Mineralogical Museum of the Russian Academy of Sciences, Moscow, Russia, registration number 4538/1

IMA No. 2014-015
Pharmazincite
KZnAsO₄
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 asl)
Igor V. Pekov*, Vasiliy O. Yapaskurt, Dmitry I. Belakovskiy, Marina F. Vigasina, Natalia V. Zubkova, Fabrizio Nestola, Anatoly V. Kasatkin and Maurizio Dini
*E-mail: nikchukanov@yandex.ru
Known synthetic analogue
Hexagonal: P6₃
a = 18.501(4), c = 8.7114(9) Å
Type material is deposited in the collections of the Fersman Mineralogical Museum of the Russian Academy of Sciences, Moscow, Russia, registration number 4539/1

IMA No. 2014-017
Bridgmanite
MgSiO₃
Tenham L6 chondrite (which fell near the Tenham Station, western Queensland, Australia)
Oliver Tschauner* and Chi Ma
*E-mail: olivert@physics.unlv.edu
Perovskite structure type
Orthorhombic: Pnma; structure determined
a = 5.02(3), b = 6.90(3), c = 4.81(2) Å
Type material is deposited in the collections of the Smithsonian Institution’s National Museum of Natural History, Washington DC, USA, registration number USNM 7703
IMA No. 2014-018
Chubarovite
KZn$_2$(BO$_3$)Cl$_2$
Arsenatnaya fumarole, Second scoria cone of the Northern Breakthrough of the Great Tolbachik Fissure Eruption, Tolbachik volcano, Kamchatka Peninsula, Far-Eastern Region, Russia (55º41’N, 160º14’E, 1200 m asl)
*E-mail: igorpekov@mail.ru
New structure type
Trigonal: R$ar{3}$2; structure determined
$a = 4.9431(4)$, $c = 26.346(2)$ Å
$8.79(100)$, $4.394(43)$, $4.225(25)$, $4.074(91)$, $3.590(90)$, $3.324(30)$, $2.470(67)$, $2.245(25)$
Type material is deposited in the collections of the Fersman Mineralogical Museum of the Russian Academy of Sciences, Moscow, Russia, registration number 4541/1

IMA No. 2014-020
Mieite-(Y)
Y$_4$Ti(SiO$_4$)$_2$O[OH,F]$_6$
Souri Valley, Komono, Mie Prefecture, Japan (35º0’35”N, 136º27’33”E)
Ritsuro Miyawaki*, Satoshi Matsubara, Kazumi Yokoyama, Masako Shigeoka, Koichi Momma and Sadaoki Yamamoto
*E-mail: miyawaki@kahaku.go.jp
New structure type
Trigonal: $R$
structuring determined
$a = 4.9431(4)$, $c = 26.346(2)$ Å
$8.79(100)$, $4.394(43)$, $4.225(25)$, $4.074(91)$, $3.590(90)$, $3.324(30)$, $2.470(67)$, $2.245(25)$
Type material is deposited in the collections of the Fersman Mineralogical Museum of the Russian Academy of Sciences, Moscow, Russia, registration number 4541/1

IMA No. 2014-021
Plašilite
Na(UO$_2$)(SO$_4$)(OH)-2H$_2$O
Blue Lizard Mine, Red Canyon, White Canyon District, San Juan County, Utah, USA (37º33’26”N, 110º17’44”W)
Anthony R. Kampf*, Anatoly V. Kasatkin, Jiří Čejka and Joe Marty
*E-mail: akampf@nhm.org
New structure type
Monoclinic: P2$_1$/c; structure determined
$a = 8.7122(6)$, $b = 13.8368(4)$, $c = 7.0465(2)$ Å
$β = 112.126(8)^°$
$6.90(100)$, $5.85(99)$, $4.024(57)$, $3.492(82)$, $3.136(40)$, $2.690(25)$, $2.618(34)$, $1.9212(30)$
Cotype 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 64126, 64127, 64128, 64129 and 64130, and the Fersman Mineralogical Museum of the Russian Academy of Sciences, Moscow, Russia, registration number 4548/1

IMA No. 2014-022
Yusupovite
Na$_2$Zr(Si$_6$O$_{15}$)·2.5H$_2$O
Darai-Pioz Glacier, Alai Range, Tien Shan Mtn, Region of Republican Subordination, Tajikistan (39º30’N, 70º40’E)
Atali A. Agakhanov*, Leonid A. Pautov, Vladimir Y. Karpenko, Elena Sokolova, Frank C. Hawthorne, Igor V. Pekov and Oleg. I. Siidra
*E-mail: atali99@mail.ru
A dimorph of elpidite
Monoclinic: C2/m; structure determined
$a = 14.942(2)$, $b = 10.633(2)$, $c = 7.0365(8)$ Å
$β = 90.0399(4)^°$
$7.05(100)$, $6.51(42)$, $5.13(53)$, $4.78(19)$, $3.24(96)$, $3.17(34)$, $3.10(69)$, $2.941(27)$
Type material is deposited in the collections of the Fersman Mineralogical Museum of the Russian Academy of Sciences, Moscow, Russia, registration number 4543/1

IMA No. 2014-025
Katiarsite
KTiO(AsO₄)
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 asl)
Igor V. Pekov*, Vasiliy O. Yapaskurt, Sergey N. Britvin, Natalia V. Zubkova, Marina F. Vigasina and Evgeny G. Sidorov
*E-mail: igorpekov@mail.ru
Known synthetic analogue
Orthorhombic: Pna2₁
a = 13.174(4), b = 6.5635(10), c = 10.805(2) Å
5.91(17), 5.62(74), 4.18(19), 3.633(15), 3.157(66), 2.826(100), 2.809(96), 2.704(19)
Type material is deposited in the collections of the Fersman Mineralogical Museum of the Russian Academy of Sciences, Moscow, Russia, registration number 4540/1

NEW MINERAL PROPOSALS APPROVED IN JULY 2014

IMA No. 2014-019
Bavsiiite
Ba₂V₂O₂[Si₄O₁₂]
Gunn claim, Wilson Lake, Itsi Mountains, Watson Lake Mining District, Yukon Territory, Canada (130°05’W, 62°50’50’N)
Hans-Peter Bojar* and Franz Walter
*E-mail: hans-peter.bojar@museum-joanneum.at
A dimorph of suzukiite
Tetragonal: 4/m; structure determined
a = 7.051(1), c = 11.470(1) Å
3.763(30), 3.361(44), 3.004(100), 2.493(43),
2.486(67), 2.286(24), 1.785(39), 1.763(25)

2.486(67), 2.286(24), 1.785(39), 1.763(25)

Type material is deposited in the mineralogical collection of the Universalmuseum Joanneum, Weinzötlstraße 16, A-8045 Graz, Austria, catalogue number 85.282


IMA No. 2014-026

Znamenskyite
Pb4In2Bi4S13
Kudriavy Volcano, Iturup Island, Kurile Islands, Russia (45°23′02″N, 148°48′47″E)
Ilya V. Chaplygin*, Nadezhda N. Mozgova, Igor A. Bryzgalov, Dmitriy I. Belakovskiy, Natalie V. Pervukhina, Stanislav V. Borisov and Svetlana A. Magarill
*E-mail: ichap@igem.ru
Known synthetic analogue
Orthorhombic: Pbam; structure determined
a = 21.331(4), b = 26.435(5), c = 4.006(1) Å
Type material is deposited in the collections of the Fersman Mineralogical Museum of the Russian Academy of Science, Moscow, Russia, registration number 4558/1

IMA No. 2014-027

Antipinite
KNa3Cu2(C2O4)4
Pabelón de Pica Mountain, 1.5 km south of Chanabaya village, Iquique Province, Tarapaca Region, Chile (20°55′S, 70°08′W)
Nikita V. Chukanov*, Sergey M. Aksenov, Ramiza K. Rastsvetaeva, Konstantin A. Lysenko, Dmitriy I. Belakovskiy, Gunnar Färber and Konstantin V. Van
*E-mail: nikchukanov@yandex.ru
New structure type
Triclinic: P1; structure determined
a = 7.1574(5), b = 10.7099(8), c = 11.1320(8) Å, α = 113.093(1), β = 101.294(1), γ = 90.335(1)
Type material is deposited in the collections of the Fersman Mineralogical Museum of the Russian Academy of Science, Moscow, Russia, registration number 4558/1

IMA No. 2014-028

Adrianite
Ca12(Al4Mg3Si7)O32Cl6
Allende CV3 meteorite (which fell near Pueblito de Allende, Chihuahua, Mexico)
Chi Ma* and Alexander N. Krot
*E-mail: chi@gps.caltech.edu
Wadalite group
Cubic: I43d
a = 11.981 Å
4.891(14), 2.995(32), 2.679(100), 2.446(36), 2.187(14), 1.729(14), 1.661(28), 1.601(28)
Type material is deposited in the G.J. Wasserburg Meteorite Collection of Division of Geological and Planetary Sciences, California Institute of Technology, Pasadena, California 91125, USA, section MQM803

IMA No. 2014-029

Cortesognoite
CaV2Si2O7(OH)2·H2O
Molinello manganese mine, Graveglia valley, Northern Apennines, Liguria, Italy (44°20′43″N, 9°27′32″E)
Chi Ma*, Cristina Carbone and Donato Belmonte
*E-mail: chi@gps.caltech.edu
The V analogue of lawsonite
Orthorhombic: Cmcm
a = 5.847, b = 8.790, c = 13.128 Å
6.564(96), 3.652(99), 2.721(90), 2.671(72), 2.630(100), 2.620(52), 2.434(55), 1.549(80)
Type material is deposited in the collections of the Dipartimento di Scienze della Terra, Ambiente e Vita (DISTAV) of the Università di Genova, Genova, Italy, registration number MO482
How to cite: Ma, C., Carbone, C. and Belmonte,
IMA No. 2014-030
Bobcookite
NaAl(UO₂)₂(SO₄)₄·18H₂O
Blue Lizard Mine, Red Canyon, White Canyon District, San Juan County, Utah, USA (37°33′26″N, 110°17′44″W)
Anthony R. Kampf*, Jakub Plášil, Anatoly V. Kasatkin and Joe Marty
*E-mail: akampf@nhm.org
New structure type
Triclinic: P̅1; structure determined
a = 7.7912(2), b = 10.5491(3), c = 11.2451(8) Å,
α = 68.961(5), β = 70.909(5), γ = 87.139(6)°
9.82(100), 7.14(99), 6.33(55), 5.99(39),
5.25(83), 3.563(52), 3.441(49), 3.082(57)
Type 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 number 64164, and the Fersman Mineralogical Museum of the Russian Academy of Sciences, Moscow, Russia, registration number 4560/1

IMA No. 2014-031
Vanarsite
NaCa₁₂(As³⁺V₅⁺₉.5As⁵⁺₆O₅₁)₂·78H₂O
Packrat mine, near Gateway, Mesa County, Colorado, USA (38° 38′ 51.28″ N, 109° 02′ 49.77″ W)
Anthony R. Kampf*, John M. Hughes, Joe Marty and Barbara P. Nash
*E-mail: akampf@nhm.org
New structure type
Monoclinic: P2₁/c; structure determined
a = 25.8902(8), b = 10.9468(3), c = 28.2980(8) Å,
β = 102.252(1)°
13.1(100), 10.0(98), 9.3(63), 7.87(56), 4.44(31),
3.339(33), 2.962(32), 2.772(30)
Type material is deposited in the mineralogical collections of the Natural History Museum of Los Angeles County, Los Angeles, California, USA, catalogue numbers 64149 and 64150

IMA No. 2014-032
Dzierżanowskite
CaCu₂S₂
Near Nabi Musa, Judean Desert, West Bank, Palestinian Autonomy, Israel (31°09'N, 35°17'E)
Irina O. Galuskina*, Evgeny V. Galuskin, Krystian Prusik, Yevgeny Vapnik, Lidia Ježák and Mikhail Murashko
*E-mail: irina.galuskina@us.edu.pl
Known synthetic analogue
Trigonal: P3m1
a = 3.9400(4), c = 6.523(1) Å
6.523(32), 3.412(27), 3.023(98), 2.358(100),
1.970(89), 1.834(48), 1.512(22), 1.460(21)
Type material is deposited in the collections of the Mineralogical Museum, University of Wrocław (Muzeum Mineralogiczne Uniwersytetu Wrocławskiego), Cybulskiego 30, 50-205 Wrocław, Poland, catalogue number MMUWR II-20464

IMA No. 2014-033
Khesinite
Ca₄(Mg³⁺Fe³⁺⁹)O₄(Fe³⁺⁹Si₃)O₃₆
Gurim anticline, near Arad City, Negev Desert, Israel (31°09'N, 35°17'E)
Irina O. Galuskina*, Evgeny V. Galuskin, Anna S. Pakhomova, Remo Widmer, Thomas Armbruster, Biljana Lazic, Edward S. Grew, Yevgeny Vapnik, Piotr Dzierżanowski and Mikhail Murashko
*E-mail: irina.galuskina@us.edu.pl
Sapphireine supergroup
Triclinic: P1; structure determined
a = 10.5363(1), b = 10.9242(2), c = 9.0612(1) Å,
α = 106.340(1), β = 95.765(1), γ = 124.373(1)°
7.575(56), 2.995(53), 2.994(56), 2.728(60),
2.727(60), 2.590(100), 2.587(80), 2.586(81)
Type material is deposited in the collections of the Museum of Natural History in Bern, Bernastrasse 5, CH-3005 Bern, Switzerland, catalogue number NMBE 4717

**IMA No. 2014-034**
Genplesite
\[\text{Ca}_3\text{Sn(SO}_4)_2\text{(OH)}_6\cdot3\text{H}_2\text{O} \]
No. 1 shaft, Oktyabr’sky mine, Talnakh, Norilsk area, Krasnoyarsk Krai, Siberia, Russia (69º55’ N, 88º32’ E)
Igor V. Pekov*, Evgeny V. Sereda, Natalia V. Zubkova, Vasily O. Yapaskurt, Nikita V. Chukanov, Sergey N. Britvin, Inna S. Lykova and Dmitriy Y. Pushcharovsky
*E-mail: igorpekov@mail.ru
Fleischerite group
Hexagonal: \(P6_3/mmc\); structure determined
\[a = 8.5139(2), \ c = 11.1408(3) \text{ Å} \]
Type material is deposited in the collections of the Fersman Mineralogical Museum of the Russian Academy of Sciences, Moscow, Russia, registration number 4566/1

**IMA No. 2014-035**
Liguriaite
\[\text{K(Li,Cu)}\text{Cu}_2\text{(Si}_4\text{O}_{11})\text{OH}_4 \]
Cerchiara mine, Borghetto Vara, Vara Valley, Liguria, Italy (44º11’58’’N, 9º42’1’’E)
Uwe Kolitsch*, Cristina Carbone, Donato Belmonte, Roberto Cabella and Marco E. Ciriotti
*E-mail: uwe.kolitsch@nhm-wien.ac.at
A dimorph of lavinskyite
Cubic: \(Im\overline{3}m\)
\[a = 3.02(1) \text{ Å} \]
Type material is deposited in the mineralogical collection of the Museo di Storia Naturale, Sezione di Mineralogia e Litologia, Università degli Studi di Genova, Italy, catalogue number 3142/I

**IMA No. 2014-037**
Ferro-pedrizite
\[\text{NaLi}_2\text{(Fe}^{2+}_2\text{Al}_2\text{Li)}\text{Si}_8\text{O}_{22}\text{(OH)}_2 \]
Sangilen Upland, Sutlug Valley, Targi River Basin, Tuva Republic, Eastern Siberian Region, Russia (50º00’20’’N, 96º37’40’’E)
Sergey I. Konovalenko, Sergey A. Ananyev, Nikita V. Chukanov*, Ramiza K. Rastsvetaeva, Sergey M. Aksenov, Anatoliy I. Bakhtin, Anatoliy G. Nikolaev, Raml G. Gainov, Anatoliy N. Sapozhnikov, Dmitriy I. Belakovskiy and Ambiente e Vita (DISTAV), Università degli Studi di Genova, Italy, catalogue number MO741, and the Natural History Museum Vienna, Vienna, Austria, catalogue number N 9733

**IMA No. 2014-036**
Steinhardtite
\[\text{Al} \]
Khatyryka CV3 meteorite (which fell in the Koryak Mountains, Russia)
*E-mail: luca.bindi@unifi.it
A dimorph of aluminium
Cubic: \(Im\overline{3}m\)
\[a = 3.02(1) \text{ Å} \]
Type material is deposited in the mineralogical collection of the Museo di Storia Naturale, Sezione di Mineralogia e Litologia, Università di Firenze, Via La Pira 4, I-50121, Firenze (Italy), catalogue number 3142/I
Yana V. Bychkova
*E-mail: chukanov@icp.ac.ru

Amphibole supergroup
Monoclinic: $C2/m$; structure determined
$a = 9.3716(4)$, $b = 17.649(1)$, $c = 5.2800(6)$ Å,
$\beta = 102.22(1)^\circ$
8.147(52), 4.420(22), 3.385(18), 3.009(100),
2.7102(28), 2.6865(29), 2.4824(19), 1.6236(25)
Type material is deposited in the collections of
the Mineralogical Museum of the Tomsk State
University, Tomsk, 634050 Russia, registration
number 19116

How to cite: Konovalenko, S.I., Ananyev, S.A.,
Chukanov, N.V., Rastsvetaeva, R.K., Aksenov,
S.M., Bakhtin, A.I., Nikolaev, A.G., Gainov, R.,
Sapozhnikov, A.N., Belakovskiy, D.I. and
Bychkova, I.V. (2014) Ferro-pedrizite, IMA
2014-037. CNMNC Newsletter No. 21, August
2014, page 803; Mineralogical Magazine, 78,
797–804.

IMA No. 2014-038
Keutschite
Cu$_2$AgAsS$_4$
Uchucchacua polymetallic deposit, Oyon
district, Catajambo, Lima Department, Peru
(10º37’15”S, 76º48’0”W)
Dan Topa*, Rie Takagi Fredrickson and Chris
Stanley
*E-mail: Dan.Topa@nhm-wien.ac.at

Stannite group
Tetragonal: $I42m$; structure determined
$a = 5.5834(15)$, $c = 10.021(3)$ Å
3.09(vs), 2.79(ms), 1.966(s), 1.864(s), 1.659(s),
1.548(m), 1.270(m), 1.214(m)
Type material is deposited in the reference
collection of the Naturhistorisches Museum
Wien, Wien, Austria, specimen number N9734

How to cite: Topa, D., Takagi Fredrickson, R.
and Stanley, C. (2014) Keutschite, IMA
2014-038. CNMNC Newsletter No. 21, August
2014, page 804; Mineralogical Magazine, 78,
797–804.

NOMENCLATURE PROPOSAL APPROVED
IN JUNE 2014

Tobermorite group
A new nomenclature scheme has been approved
for minerals in the tobermorite group. Several
minerals in the group were also redefined.
Plombièrite has been redefined as:
[Ca$_4$Si$_6$O$_{16}$(OH)$_2$·2H$_2$O]·(Ca·5H$_2$O); tober-
morite has been redefined as two minerals:
tobermorite [Ca$_4$Si$_6$O$_{17}·2H_2$O]·(Ca·3H$_2$O); and
kenotobermorite [Ca$_4$Si$_6$O$_{15}$(OH)$_2·2H_2$O]·
3H$_2$O; clinotobermorite has been redefined as
[Ca$_4$Si$_6$O$_{17}·2H_2$O]·(Ca·3H$_2$O); and riversideite
has been redefined as a questionable species.

NOMENCLATURE PROPOSALS APPROVED
IN JULY 2014

IMA 14-B: Thorogummite
Proposal 14-B is accepted, and “thorogummite”
is discredited. This name has been used to
describe heterogeneous mixtures of secondary,
non-crystalline minerals, produced by the
alteration, hydration, or metamictization of
thorite.

IMA 14-E: Jamborite
Proposal 14-E is accepted, and jamborite is no
longer a “questionable species” but a valid
species. Jamborite lies outside the hydrotalcite
supergroup as defined by Mills et al. (2012); its
ideal formula is Ni$_{1-x}$Co$_x$(OH)$_2$·x(SO$_4$)$_n$·nH$_2$O
$x \leq \frac{1}{2}$; $n \leq (1 - x)$. 