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

NEWSLETTER 15

New minerals and nomenclature modifications approved in 2012 and 2013

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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

DOI: 10.1180/minmag.2013.077.1.01
New mineral proposals approved in September 2012

IMA No. 2012-039
Ca₁₋₂Fe₃[(Si,Al,Be)₅Be₂O₁₃(OH)₂]·2H₂O
In a syenite pegmatite at Langangen, Blåfjell, Norway (59°5′34″N 9°41′38″E) and the A/S Granite Quarry, Tvedalen, Vestfold, Norway
J. Grice*, R. Kristiansen, H. Friis, R. Rowe, R.S. Selbekk, M. Cooper, A.O. Larsen and G. Poirier
*E-mail: jgrice@mus-nature.ca
Interrupted framework zeolite
Monoclinic: P2₁/c; structure determined
a = 8.759(5), b = 4.864(2), c = 31.258(7) Å, β = 90.31(3)°
15.555(100), 4.104(29), 3.938(36), 3.909(60), 3.820(30), 3.251(66), 3.186(27), 2.884(64)
Type material is deposited in the collections of the Canadian Museum of Nature, Ottawa, Canada, specimen number CNMMC 86554, and the Natural History Museum, Oslo, Norway, specimen numbers 43434 and 43435

IMA No. 2012-040
Markhininite
TlBi(SO₄)₂
Great Fissure, Tolbachik volcano, Kamchatka Peninsula, Russia
Stanislav K. Filatov, Lidiya P. Vergasova, Oleg I. Siidra*, Sergey V. Krivovich and Yuri L. Kretser
*E-mail: siidra@mail.ru
Related to yavapaiite and eldfellite
Triclinic: P₁; structure determined
a = 7.375(9), b = 10.647(16), c = 10.671(12) Å, α = 61.24(9), β = 70.77(13), γ = 70.85(10)°
4.264(68), 3.442(100), 3.350(35), 3.125(24), 3.054(23), 2.717(45), 2.217(20), 2.114(34)
Type material is deposited in the collections of the Natural History Museum, Bern, Switzerland, registration number NMBE 41538

IMA No. 2012-045
Harmaninite
CaFe₂O₄
Jabel Harmun Mountain, Judea Desert, West Bank, Palestinian Autonomy, Israel (31°46′N 35°26′E)
Irina O. Galuskina*, Yevgeny Vapnik, Biljana Lazic, Thomas Armbroster, Mikhail Murashko and Evgeny V. Galuskin
*E-mail: irina.galuskina@us.edu.pl
Post-spinel calcium ferrite
Orthorhombic: Pnma; structure determined
a = 9.2183(3), b = 3.0175(1), c = 10.6934(4) Å
2.670(52), 2.663(100), 2.524(60), 2.523(35), 2.232(34), 1.834(40), 1.831(27), 1.510(19)
Type material is deposited in the collections of St Petersburg University, Universytetskaya Naberezhnaya 7/9, 190034 St Petersburg, Russia, catalogue number 1/19518

IMA No. 2012-046
Kyuygenite
Ca₁₂Al₁₄O₃₂[(H₂O)₄Cl₂]
Xenolith no.1, Upper Chegem volcanic caldera, Kabardino-Balkaria, North Caucasus, Russia (43°17′N 43°6′E)
*E-mail: evgeny.galuskin@us.edu.pl
H₂O analogue of brearleyite
Cubic: I4₃d; structure determined
a = 12.0285(1) Å
4.911(31), 3.215(15), 3.007(38), 2.690(100), 2.455(46), 2.196(21), 1.668(26), 1.607(30)
Type material is deposited in the collections of the Naturhistorisches Museum, Bern, Switzerland, registration number NMBE 41538
IMA No. 2012-047
Grigorievite
Cu$_3$Fe$_3^+$Al$_2$(VO$_4$)$_6$
Second scoria cone, Tolbachik volcano, Kamchatka Peninsula, Kamchatka Oblast’, Far-Eastern Region, Russia (55º41’N 160º14’E)
Igor V. Pekov*, Natalia V. Zubkova, Mikhail N. Murashko, Vasilii O. Yapaskurt, Yury S. Polekhovsky, Pavel M. Kartashov and Dmitry Y. Pushcharovsky
*E-mail: igorpekov@mail.ru
Related to howardevansite
Triclinic: $P\overline{1}$; structure determined
$a = 8.0217(5)$, $b = 9.6858(10)$, $c = 6.5475(9)$ Å,
$x = 103.645(10)$, $\beta = 102.369(8)$, $\gamma = 106.281(8)$º
7.36(27), 4.718(29), 4.417(24), 3.671(26), 3.426(23), 3.141(100), 3.044(92), 2.811(26)
Type material is deposited in the collections of the Fersman Mineralogical Museum of the Russian Academy of Sciences, Moscow, Russia, registration number 4278/1

IMA No. 2012-048
Hatertite
Na$_2$(Ca$_x$Na$_y$)(Fe$^{3+}$,Cu)$_2$(AsO$_4$)$_3$
North Breach of the Great fissure Tolbachik volcano eruption (1975–1976), Kamchatka Peninsula, Russia (55º41’N 160º14’E)
L.P. Vergasova, S.K. Filatov, D.S. Rybin, S.V. Krivovichev*, S.N. Britvin and V.V. Ananiev
*E-mail: skrivovi@mail.ru
Alluaudite group
Monoclinic: $C2/c$; structure determined
$a = 12.640(2)$, $b = 13.007(2)$, $c = 6.700(1)$ Å,
$\alpha = 113.828(3)$º
6.493(25), 3.628(25), 3.204(39), 3.065(18), 2.976(28), 2.830(100), 2.632(36), 1.647(19)
Type material is deposited in the collections of the Fersman Mineralogical Museum, Department of Mineralogy, St Petersburg University, St Petersburg, Russia, catalogue number 1/19536

IMA No. 2012-049
Mössbauerite
Fe$_3^+$O$_2$(OH)$_4$(CO$_3$)$_{0.5}$·1.5H$_2$O
Mont Saint-Michel Bay, Brittany and Normandy, France
*E-mail: smills@museum.vic.gov.au
Hydrotalcite supergroup
Trigonal: $R3$
$a = 3.079(6)$, $c = 22.253(2)$ Å
7.372(60), 3.691(20), 2.646(100), 2.588(70), 2.406(40), 1.928(30), 1.855(50)
The holotype is preserved in the collections of Museum Victoria, Melbourne, Australia, registration number M52078

IMA No. 2012-051
Beshtauite
(NH$_4$)$_2$(UO$_2$)(SO$_4$)$_2$·2H$_2$O
Gremuchka ore zone, Beshtau uranium deposit, Mount Beshtau, Stavropol Krai, Northern Caucasus, Russia (44º05’53”N 43º01’20”E)
Igor V. Pekov*, Sergey V. Krivovichev, Vasilii O. Yapaskurt, Nikita V. Chukanov and Dmitriy I. Belakovskiy
*E-mail: igorpekov@mail.ru
New structure type
Monoclinic: $P2_1/c$; structure determined
$a = 7.3760(8)$, $b = 7.3712(5)$, $c = 20.856(2)$ Å,
$\beta = 102.123(8)$º
6.86(100), 5.997(19), 5.558(15), 5.307(36), 5.005(35), 3.410(38), 3.081(24), 2.881(20)
The holotype is preserved in the collections of the Fersman Mineralogical Museum of the Russian Academy of Sciences, Moscow, Russia, registration number 4280/1
New mineral proposals approved in October 2012

IMA No. 2012-052
Yangite
PhMnSi₃O₈·H₂O
Kombat mine, Otavi Valley, Namibia
William W. Pinch*, Robert T. Downs, Stanley H. Evans, Lauren Megaw and Elias M. Bloch
*E-mail: wwpinch@gmail.com

New chain silicate with the two-connected double chains

Triclinic: P1̅; structure determined
a = 7.9833(8), b = 7.2712(7), c = 9.6015(9) Å,
α = 109.938(5), β = 118.229(4), γ = 105.910(4)°
7.379(10), 6.648(48), 3.717(38), 2.992(38), 2.949(40), 2.917(65), 2.907(55)

Type material is preserved in the collections of the Mineral Museum of the University of Arizona, Tucson, Arizona, USA, catalogue number 19341, and the Smithsonian Institution, Washington DC, USA, catalogue number 175983


IMA No. 2012-053
Nickelpicromerite
K₂Ni(SO₄)₂·6H₂O
Slyudorudnik, Kyshtym District, Chelyabinsk Oblast, South Urals, Russia (55º40'12"N 60º21'17"E)
Elena V. Belogub, Sergey V. Krivovichev, Igor V. Pekov*, Aleksey M. Kuznetsov, Vasilyi A. Kotlyarov, Nikita V. Chukanov and Dmitriy I. Belakovskiy
*E-mail: igorpekov@mail.ru

Picromerite group
Monoclinic: P2₁/m; structure determined
a = 8.9277(6), b = 5.6548(3), c = 17.587(1) Å, β = 116.475(8)°
15.743(92), 4.616(30), 3.499(42), 2.983(100), 2.827(47), 2.751(32), 2.659(23), 2.619(57)

Type material is preserved in the collections of the Mineral Museum of the University of Arizona, Tucson, Arizona, USA, catalogue number 19341, and the Smithsonian Institution, Washington DC, USA, catalogue number 175983


IMA No. 2012-054
(CaCe₂.5Na₀.5)(Al₄)(Si₂O₇)(SiO₄)₃O(OH)₂
Stetind pegmatite, Tysfjord granite, Norway (68º10’15.20"N 16º33’10.65"E)
Paola Bonazzi*, Luca Bindi, Christian Chopin, Tomas A. Hudsal and Giovanni O. Lepore
*E-mail: paola.bonazzi@unifi.it

Member of a polysomatic series having epidote and törnebohmite as endmembers

Monoclinic: P2₁/m; structure determined
a = 8.519(3), b = 8.057(3), c = 24.905(8) Å, β = 98.926(6)°
3.835(62), 3.646(100), 3.441(60), 3.408(62), 3.117(52), 3.008(43), 2.972(66), 2.769(90)

Type material is preserved in the collections of the Museo di Storia Naturale, Università degli Studi di Firenze, Firenze, Italy, catalogue number 3114/I


IMA No. 2012-055
Barikaite
Ag₃Pb₁₀(Sb₈As₁₁)S₁₉S₄₀
Barika ore deposit, 17 km east of Sardasht, West Azerbaijan Province, Iran (the goldfield is situated between 36º10’N and 36º13’N and 45º37’E and 45º41’E)
Dan Topa*, Emil Makovicky, Hubert Putz, Georg Zagler and Husein Tajjedin
*E-mail: dan.topa@sbg.ac.at

Arsenian N = 4 member of the sartorite homologous series

Monoclinic: P2₁/m; structure determined
a = 8.519(3), b = 8.057(3), c = 24.905(8) Å, β = 98.926(6)°
3.835(62), 3.646(100), 3.441(60), 3.408(62), 3.117(52), 3.008(43), 2.972(66), 2.769(90)

Type material is preserved in the collections of the Natural Scientific Museum of the Ilmen State Reserve, Miass, Russia, specimen number 17301, and the Fersman Mineralogical Museum of the Russian Academy of Sciences, Moscow, Russia, registration number 4281/1

Type material is preserved in the collections of the Department of Materials Engineering and Physics, University of Salzburg, Salzburg, Austria, specimen number 15005


IMA No. 2012-056
Rossiantonite
Al₃(PO₄)(SO₄)(OH)₂(H₂O)₁₄
Akopan-Dal Cin cave system, Chimantha massif, Venezuela (5°10'52"N 61°57'50"W)
Ermanno Galli, Maria Franca Brigatti*, Daniele Malferrari, Francesco Sauro and Jo De Waele
*E-mail: gallier@unimore.it

New structure type
Triclinic: P1; structure determined
a = 10.3415(3), b = 10.9580(3), c = 11.1445(3) Å, α = 86.968(4), β = 65.757(3), γ = 75.055(3)°
10.16(32), 9.12(56), 8.02(40), 7.12(33), 5.00(29), 4.647(100), 4.006(53), 3.781(28)

Type material is preserved in the collections of the "Gemma" University Museum of Modena and Reggio E. University, Modena, Italy, catalogue number 2/2012


IMA No. 2012-057
Nabimusaite
KCa₁₂(SiO₄)₄(SO₄)₂O₂F
Jabel Harmun, Nabi Musa, Judea Desert, West Bank, Palestinian Autonomy, Israel (31°46'N 35°26'E)
Evgeny V. Galuskin*, Frank Gfeller, Thomas Armbruster, Irina O. Galuskina, Yevgeny Vapnik, Mikhail Murashko, Roman Włodyka and Piotr Dzierżański
*E-mail: evgeny.galuskin@us.edu.pl

Known synthetic nesosilicate
Trigonal: R₃m; structure determined
a = 8.2917(5), b = 19.101(1), c = 19.487(1) Å, α = 89.731(1), β = 83.446(1), γ = 89.944(1)°
3.847(33), 3.294(80), 3.281(100), 3.227(25), 2.860(33), 2.850(26)

Type material is preserved in the collections of the Museum of Natural History in Bern, Bern, Switzerland, catalogue number NMBE 41598


IMA No. 2012-058
Jasrouxite
Ag₁₆Pb₄(Sb₂₄As₁₆)S₄₀S₇₂
Jas Roux mine, La Chapelle en Valgaudemard, Parc National des Ecrins, Hautes-Alpes, France (44°48'45"N 6°19'18"E)
Dan Topa*, Emil Makovicky, Georges Favreau, Vincent Bourgoin, Jean-Claude Boulliard, Georg Zagler and Hubert Putz
*E-mail: dan.topa@sbg.ac.at

Lillianite homologous series
Triclinic: P1; structure determined
a = 8.2917(5), b = 19.101(1), c = 19.487(1) Å, α = 89.731(1), β = 83.446(1), γ = 89.944(1)°
3.847(33), 3.294(80), 3.281(100), 3.227(25), 2.860(33), 2.850(26)

Type material is preserved in the collections of the Department of Materials Engineering and Physics, University of Salzburg, Salzburg, Austria, specimen number 15006


IMA No. 2012-059
Cobaltobloëdite
Na₂Co(SO₄)₂·4H₂O
Blue Lizard mine, Red Canyon, White Canyon District, San Juan County, Utah
Anatoly V. Kasatkin*, Fabrizio Nestola, Jakub Plášil, Joe Marty, Dmitriy I. Belakovskiy, Atali A. Agakhanov, Stuart J. Mills, Arianna Lanza, Monica Favaro and Sara Bianchin
*E-mail: anatoly.kasatkin@gmail.com

Bloëdite group
Monoclinic: P2₁/a; structure determined
a = 11.147(1), b = 8.268(1), c = 5.5396(7) Å, β = 100.517(11)°
4.551(80), 4.269(50), 3.795(18), 3.339(43), 3.290(100), 3.258(58), 2.644(21), 2.296(22)

Type material is preserved in the collections of the Fersman Mineralogical Museum of the Russian Academy of Sciences, Moscow, Russia, registration number 4271/1, and

IMA No. 2012-060
Colinowensite
BaCuSi2O6
Central-Eastern orebody, Wessels Mine, Hotazel, Northern Cape Province, South Africa
Branko Rieck*
*E-mail: branko@mineralogie.at
New structure type
Tetragonal: \(I\bar{4}1/\text{acd}\); structure determined
\(a = 9.966(1), c = 22.293(2)\) Å

10.577(31), 4.997(30), 4.560(31), 2.985(100), 2.499(57), 2.280(23), 1.767(19)

Type material is preserved in the collections of the Institut für Mineralogie und Kristallographie, University of Vienna, Vienna, Austria, catalogue number HS13.097

IMA No. 2012-061
Bairdite
Pb2Cu4Te6+O16(OH)2(SO4)·H2O
Bird Nest drift, Otto Mountain, San Bernadino County, California, USA (35.27677ºN 116.09927ºW)
Anthony R. Kampf*, Stuart J. Mills, Robert M. Housley, George R. Rossman, Joseph Marty and Brent Thorne
*E-mail: akampf@nhm.org
New structure type
Monoclinic: \(P2_1/\text{c}\); structure determined
\(a = 14.3126(10), b = 5.2267(3), c = 9.4878(5)\) Å,
\(\beta = 106.815(7)º\)

4.77(50), 4.522(66), 3.480(62), 2.999(97), 2.701(79), 2.614(100), 1.727(65), 1.509(83)

Type material is preserved in the collections of the Natural History Museum of Los Angeles County, Los Angeles, California, USA, catalogue numbers 64000 and 64001

IMA No. 2012-063
Schindlerite
\[[\text{Na}_2(\text{H}_2\text{O})_{10}]\{\text{H}_3\text{O}\}_4\{\text{V}_{10}\text{O}_{28}\}\]
St Jude mine, Gypsum Valley, Slick Rock, San Miguel County, Colorado, USA
Anthony R. Kampf, John M. Hughes*, Joe Marty and Barbara Nash
*E-mail: jm Hughes@uvm.edu
New structure type
Triclinic: \(P\bar{1}\); structure determined
\(a = 8.5143(3), b = 10.4238(5), c = 11.2827(8)\) Å,
\(\alpha = 68.595(5), \beta = 87.253(6), \gamma = 67.112(5)º\)

10.51(94), 8.68(100), 7.70(86), 6.73(61), 3.815(24), 2.993(50), 2.787(24), 2.131(29)

Type material is preserved in the collections of the Natural History Museum of Los Angeles County, Los Angeles, California, USA, catalogue numbers 64005, 64006 and 64007

IMA No. 2012-064
Wernerbaurite
\[[\text{Ca}(\text{H}_2\text{O})_{7}]_2(\text{H}_2\text{O})_2(\text{H}_3\text{O})_2\{\text{V}_{10}\text{O}_{28}\}\]
St Jude mine, Gypsum Valley, Slick Rock, San Miguel County, Colorado, USA
Anthony R. Kampf, John M. Hughes*, Joe Marty and Barbara Nash
*E-mail: jm Hughes@uvm.edu
New structure type
Triclinic: \(P\bar{1}\); structure determined
\(a = 9.7212(6), b = 10.2598(8), c = 10.5928(8)\) Å,
\(\alpha = 89.999(6), \beta = 77.083(7), \gamma = 69.887(8)º\)

10.32(100), 9.64(92), 8.88(95), 8.10(58), 6.881(70), 6.031(39), 3.028(29), 2.842(29)

Type material is preserved in the collections of the Natural History Museum of Los Angeles County, Los Angeles, California, USA, catalogue numbers 64002, 64003 and 64004
New mineral proposals approved in November 2012

IMA No. 2012-065
Leydetite
Fe(UO₂)(SO₄)₂·11H₂O
Mas d’Alary uranium deposit, Lodève, Hérault, France (43°42'33"N 03°20'12"E)
Jakub Plašil*, Anatoly V. Kasatkin, Radek Škoda, Milan Novák, Anna Kallistová, Karla Fejfarová and Nicolas Meisser
*E-mail: plasil@fzu.cz
New structure type
Monoclinic: C2/c; structure determined
a = 11.3173(3), b = 7.7258(2), c = 21.8121(7) Å, β = 102.383(3)°
10.625(100), 6.277(1), 5.321(66), 3.549(5), 2.663(4), 2.131(2)
Type material is preserved in the collections of the Musée Cantonale de Géologie, Lausanne, Switzerland, registration number MGL 92661

IMA No. 2012-066
Linekite
K₂Ca₃[(UO₂)(CO₃)₃]₂·7H₂O
Geschieber vein, Svornost mine, Jáchymov ore district, Western Bohemia, Czech Republic (50°22'21.5"N 12°54'42.0"E)
Jakub Plašil*, Karla Fejfarová, Jiří Sejkora, Jiří Čejka, Milan Novák, Radek Škoda, Jan Hloušek, Michal Dušek and Ivana Císařová
*E-mail: plasil@fzu.cz
Known synthetically
Orthorhombic: Pnma; structure determined
a = 17.0069(5), b = 18.0273(5), c = 18.3374(5) Å
Type material is preserved in the collections of the Mineralogical Museum of the University of Wrocław, Wrocław, Poland, catalogue number MMWr IV7615; cotype specimens are deposited in the same Museum, catalogue numbers MMWr IV7616, MMWr IV7617, MMWr IV7618 and MMWr IV7619, and in the collections of the Smithsonian Institution, Washington DC, USA, specimen numbers NMNH 175986, NMNH 175987 and NMNH 175988

IMA No. 2012-067
Nioboholtite
(Nb₀.₆₋₀.₄)Al₆BSi₃O₁₈
SZKLARY serpentinite massif, c. 60 km south of Wrocław, Lower Silesia, Poland (50°39.068’N 16°49.932’E)
Adam Pieczka*, R. James Evans, Edward S. Grew, Lee A. Groat, Chi Ma and George R. Rossman
*E-mail: pieczka@agh.edu.pl
Dumortierite supergroup
Orthorhombic: Pnma
a = 4.7001, b = 11.828, c = 20.243 Å
10.213(67), 5.914(40), 5.861(66), 3.458(63), 3.231(100), 3.068(53), 2.931(65), 2.895(64)
Type material is preserved in the collections of the Mineralogical Museum of the University of Wrocław, Wrocław, Poland, catalogue number MMWr IV7616; cotype specimens are also deposited in the same Museum, catalogue numbers MMWr IV7617, MMWr IV7618 and MMWr IV7619, and in the collections of the Smithsonian Institution, Washington DC, USA, specimen numbers NMNH 175986, NMNH 175987 and NMNH 175988

IMA No. 2012-068
Titanoholtite
(Ti₀.₇₅₋₀.₂₅)Al₆BSi₃O₁₈
SZKLARY serpentinite massif, c. 60 km south of Wrocław, Lower Silesia, Poland (50°39.068’N 16°49.932’E)
Adam Pieczka*, R. James Evans, Edward S. Grew, Lee A. Groat, Chi Ma and George R. Rossman
*E-mail: pieczka@agh.edu.pl
Dumortierite supergroup
Orthorhombic: Pnma
a = 4.7001, b = 11.828, c = 20.243 Å
10.213(67), 5.914(40), 5.861(66), 3.458(63), 3.231(100), 3.068(53), 2.931(65), 2.895(64)
Type material is preserved in the collections of the Mineralogical Museum of the University of Wrocław, Wrocław, Poland, catalogue number MMWr IV7616; cotype specimens are also deposited in the same Museum, catalogue numbers MMWr IV7620 and MMWr IV7621,
and in the collections of the Smithsonian Institution, Washington DC, USA, catalogue numbers NMNH 175986, NMNH 175987 and NMNH 175988.


IMA No. 2012-070

Szklaryite

$\text{Szklaryite}\cdot \text{Al}_3\text{BaS}_3\text{O}_{15}$

Szklary serpentinite massif, c. 60 km south of Wrocław, Lower Silesia, Poland (50°39.068’ N 16°49.932’ E)

Adam Pieczka*, R. James Evans, Edward S. Grew, Lee A. Groat, Chi Ma and George R. Rossman

*E-mail: pieczka@agh.edu.pl

Dumortierite supergroup

Orthorhombic: $Pnma$

$a = 4.7001$, $b = 11.828$, $c = 20.243$ Å

$5.914(57)$, $5.861(100)$, $3.458(60)$, $3.444(34)$, $3.231(95)$, $3.068(50)$, $2.931(51)$, $2.895(59)$

The holotype is deposited in the collections of the Mineralogical Museum of University of Wrocław, Wrocław, Poland, catalogue number MMWr IV7615.


IMA No. 2012-071

Murashkoite

FeP

Halamish wadi, Hatrurim formation, Negev Desert, Israel (31°09'47”N 35°17'57”E)

Sergey N. Britvin*, Yevgeny Vapnik, Yury S. Polekhovsky and Sergey V. Krivovichev

*E-mail: sbritvin@gmail.com

MnP structure type

Orthorhombic: $Pmnna$

$a = 5.098(5)$, $b = 3.251(1)$, $c = 5.699(3)$ Å

$2.831(75)$, $2.548(22)$, $2.477(46)$, $1.975(47)$, $1.895(100)$, $1.779(19)$, $1.632(45)$, $1.264(12)$

The holotype is deposited in the collections of the Museum of Mineralogy, Earth Sciences Department, Sapienza University of Rome, Rome, Italy, catalogue number 33068.


IMA No. 2012-074

Vanadio-oxy-dravite

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

Pereval quarry, Sludyanka, Irkutsk region, Southern Lake Baikal, Siberia, Russia (51°37’N 103°38’E)

Ferdinando Bosi*, Henrik Skogby, Leonid Reznitskii and Ulf Hålenius

*E-mail: Ferdinando.bosi@uniroma1.it

Tourmaline supergroup

Trigonal: $R3m$

$\alpha = 16.0273(3)$, $c = 7.2833(1)$ Å

$6.447(37)$, $4.261(52)$, $4.004(66)$, $3.522(47)$, $2.993(67)$, $2.596(100)$, $2.057(43)$, $1.934(28)$

Type material is deposited in the collections of the Museum of Mineralogy, Earth Sciences Department, Sapienza University of Rome, Rome, Italy, catalogue number 33068.

How to cite: Bosi, F., Skogby, H., Reznitskii, L. and Hålenius, U. (2013) Vanadio-oxy-dravite,
New mineral proposals approved in January 2013

IMA No. 2012-075
Aluminopyracmonite
(NH₄)₃Al(SO₄)₃
La Fossa crater, Vulcano, Aeolian Islands, Italy
Francesco Demartin*, Italo Campostrini and Carlo Castellano
*E-mail: francesco.demartin@unimi.it
Related to pyracmonite
Trigonal: R3; structure determined
a = 15.0324(8), c = 8.7776(5) Å
7.469(67), 4.289(45), 4.187(27), 3.336(100),
3.288(60), 2.824(29), 2.796(26), 2.748(21)
Type material is deposited in the Reference Collection of the Dipartimento di Chimica, University of Milan, Milan, Italy, sample number 2012-01

IMA No. 2012-076
Nizamoffite
Mn²⁺Zn₂(PO₄)₂(H₂O)₄
Palermo No.1 pegmatite, North Groton, Grafton County, New Hampshire, USA
*E-mail: akampf@nhm.org
Mn analogue of hopeite
Orthorhombic: Pnma; structure determined
a = 10.6530(4), b = 18.4778(13), c = 5.0583(2) Å
9.27(71), 4.62(37), 4.43(24), 3.424(52),
2.873(100), 2.644(36), 2.540(33), 1.953(36)
Type material is deposited in the collections of the Natural History Museum of Los Angeles County, Los Angeles, California, USA, catalogue numbers 64009 and 64010

IMA No. 2012-062
Ferdowsiite
Ag₄(Sb₅As₃)S₁₆
Barika gold deposit, Sardasht, West Azerbaijan Province, Iran
Dan Topa*, Emil Makovicky, Hubert Putz, Georg Zagler and Husein Tajjedin
*E-mail: dan.topa@sbg.ac.at
Superstructure of PbS
Monoclinic: P2₁/n; structure determined
a = 8.677(2), b = 5.799(1), c = 13.839(3) Å, β = 96.175(4)°
3.225(96), 3.205(100), 2.900(78), 2.750(90),
2.707(73), 1.998(41), 1.979(39), 1.940(22)
Type material is preserved in the collections of the Department of Materials Engineering and Physics, University of Salzburg, Salzburg, Austria, specimen number 15006

IMA No. 2012-067
Vysokýite
U⁴⁺[AsO₂(OH)₂]₄·4H₂O
Svornost mine, Jáchymov ore district, Czech Republic (50°22'21.47''N 12°54'42.0''E)
Jakub Plášil*, Karla Fejfarová, Jan Hloušek, Radek Škoda, Milan Novák, Jiří Sejkora, Jiří Čejka, František Veselovský and Juraj Majzlan
*E-mail: plasil@fzu.cz
New structure type
Triclinic: P1; structure determined
a = 10.749(2), b = 5.044(3), c = 19.1778(7) Å, α = 89.872(15), β = 121.534(15), γ = 76.508(15)°
8.782(100), 8.067(50), 6.399(7), 4.773(6),
3.411(10), 3.197(18), 3.189(11), 3.076(11)
Type material is preserved in the collections of the Department of Mineralogy and Petrology of the National Museum in Prague, Prague, Czech Republic, catalogue number P1P 1/2012
IMA No. 2012-073

Alburnite
Ag₉GeTe₂S₄
Carănicel vein, Roșia Montana deposit, Apuseni Mountains, Romania
Călin G. Tamaș*, Bernard Grobety, Laurent Bailly, Heinz-Juergen Bernhardt and Adrian Minuț
*E-mail: calingtamas@yahoo.fr

Argyrodite–canfieldite series
Cubic: F43m
a = 10.4±0.1 Å
6.004(67), 3.136(48), 3.002(100), 2.600(26), 2.123(33), 2.002(61), 1.838(76), 1.644(12)

Type material is deposited in the collections of the Mineralogical Museum, Department of Geology, Faculty of Biology and Geology, Babeș-Bolyai University, Cluj-Napoca, Romania, registration numbers 71a/1 and 71a/2, and at Zentrale Elektronen-Mikrosonde, Institute of Geology, Mineralogy and Geophysics, Ruhr University, Bochum, Germany, section 1064b


IMA No. 2012-077

Parádsasvárite
Zn₂(CO₃)(OH)₂
Nagy-Lápafo, Parádsasvárt, Mátra Mountains, Hungary (47º54'26.50''N 19º57'9.68''E)
Béla Feher*, Sándor Szakáll, Norbert Zajzon and Judith Mihály
*E-mail: feherbela@upcmail.hu

Malachite–rosasite group
Monoclinic: P2₁/a
a = 12.92(1), b = 9.372(7), c = 3.159(4) Å, β = 110.41(1)°
6.054(67), 5.085(100), 3.703(87), 3.021(25), 2.971(25), 2.603(62), 2.539(36), 2.498(23)

Type material is deposited in the collections of the Herman Ottó Museum, Miskolc, Hungary, catalogue number 2012.23


IMA No. 2012-078

Kudryavtsevaite
Na₅(Mg,Fe)(Fe,Ti)₂Ti₃O₁₂
AK-8 pipe, Orapa kimberlite complex, Botswana (21º18'S 25º24'E)
Sergey Anashkin, Anjelica Bovkun, Luca Bindi*, Viktor Garanin and Yuriy Litvin
*E-mail: luca.bindi@unifi.it

New structure type
Orthorhombic: Pnma; structure determined
a = 27.714(1), b = 2.9881(3), c = 11.3564(6) Å
7.17(100), 4.84(70), 2.973(35), 2.841(50), 2.706(50), 2.541(50), 2.450(70), 2.296(45)

Type material is deposited in the collections of the Museo di Storia Naturale, Università degli Studi di Firenze, Firenze, Italy, catalogue number 3115/1


IMA No. 2012-079

Majindeite
Mg₂Mo₃O₈
Allende meteorite
Chi Ma
*E-mail: chi@gps.caltech.edu

Mg analogue of kamiokite
Hexagonal: P6₃mc
a = 5.778, c = 9.904 Å
4.952(100), 3.520(57), 2.495(35), 2.426(67), 2.233(23), 1.994(50), 1.641(24), 1.553(38)

Type material is deposited in the collections of the Smithsonian Institution’s National Museum of Natural History, Washington DC, USA, registration number USNM 7615


IMA No. 2012-080

Fabriesite
Na₅Al₃Si₃O₁₂·2H₂O
Tawmaw, Hpakan-Tawmaw Jade Tract, Hpakan Township, Mohnyn District, Kachin State, Myanmar
C. Ferraris*, S. Pont, G.C. Parodi, B. Rondeau and J.P. Lorand
*E-mail: ferraris@mnhn.fr

Known synthetic compound
Orthorhombic: $Pna_2_1$

$$a = 16.4260(1), \quad b = 15.0140(1), \quad c = 5.2235(5) \ \text{Å}$$

8.21(36), 7.51(32), 4.41(77), 3.41(100), 2.97(70), 2.86(25), 2.61(40), 2.45(29)

Type material is deposited in the collections of the Muséum National d’Histoire Naturelle (MNHN) of Paris, France, registration number MNHN 212-001


IMA No. 2012-081

**Kihlmanite-(Ce)**

Ce$_2$TiO$_2$(SiO$_4$)(HCO$_3$)(_H$_2$O)

Mount Kihlman, Khibiny Mountains, Kola Peninsula, Russia

Victor N. Yakovenchuk*, Gregory Y. Ivanyuk, Sergey V. Krivovichev, Elena A. Zhitova, Yakov A. Pakhomovsky, Ekaterina A. Selivanova, Julia A. Korchak and Galijabanu I. Kadyrova

*E-mail: yakovenchuk@ksc.ru

Closely related to tundrite-(Ce)

**Orthorhombic:** $P1\bar{1}$

Structure determined

$$a = 5.009(5), \quad b = 7.533(5), \quad c = 15.407(5) \ \text{Å}, \quad \alpha = 103.061(5), \quad \beta = 91.006(5), \quad \gamma = 109.285(5)^\circ$$

15.11(100), 7.508(20), 6.912(12), 4.993(14), 3.563(15), 3.198(11), 3.065(12), 2.896(15)

Type material is deposited in the collections of the mineralogical museum of St Petersburg State University, St Petersburg, Russia, registration number 1/19598, and the geological and the mineralogical museum of the geological institute of the kola science centre, apatity, Russia, registration number GIM 6790


IMA No. 2012-082

**Erzwiesite**

Ag$_8$Pb$_{12}$Bi$_{16}$S$_{40}$

Unnamed prospect in the Erzwies mining district, Gastein Valley, Salzburg Province, Austria (47º5'40"N 13º2'15"E)

Dan Topa*, Emil Makovicky, Hubert Putz and Werner H. Paar

*E-mail: dan.topa@sbg.ac.at

Lillianite homologous series

**Orthorhombic:** $Cmcm$

Structure determined

$$a = 4.085(5), \quad b = 13.462(15), \quad c = 33.92(4) \ \text{Å}, \quad \alpha = 3.588(64), \quad \beta = 3.387(98), \quad \gamma = 3.349(38), \quad 3.288(86), \quad 2.919(100), \quad 2.846(99), \quad 2.043(39), \quad 2.039(44)$$

Type material is deposited in the collections of the department of materials engineering and physics, University of Salzburg, Salzburg, Austria, specimen number 15009


IMA No. 2012-083

**Lopatkaite**

Pb$_5$Sb$_3$As$_{11}$

Maddock, Ontario, Canada

Dan Topa*, Emil Makovicky, Hubert Putz and Georg Zagler

*E-mail: dan.topa@sbg.ac.at

Homeotype of boulangerite

**Monoclinic:** $P2_1/c$

Structure determined

$$a = 8.0806(6), \quad b = 23.360(2), \quad c = 21.488(2) \ \text{Å}, \quad \alpha = 100.709(1)^\circ$$

3.728(42), 3.722(38), 3.712(100), 3.296(36), 3.207(36), 2.804(42), 2.780(46), 2.779(40)

Type material is deposited in the collections of the department of materials engineering and physics, University of salzburg, Salzburg, Austria, specimen number 15008


IMA No. 2012-021a

**Vanadium**

V

Colima volcano, Colima and Jalisco States, Mexico (19º30'45"N, 103º37'W)

Mikhail Ostrooumov

*E-mail: ostroum@umich.mx

Iron group

**Cubic:** $Im3m$

$$a = 3.022(3) \ \text{Å}$$

2.142(100), 1.513(14), 1.230(28), 1.069(8), 0.957(14), 0.871(4), 0.809(10)

Type material has been deposited in the collections of the geological museum,
Mexican National University, Mexico City, Mexico, sample number FIM 12/01


Nomenclature proposal approved in November 2012

IMA 12-C: Dumortierite supergroup

A report on the nomenclature of the minerals of the dumortierite supergroup has been approved, and the endmember compositions have been defined. The supergroup presently includes six valid species, divided into two groups (and a potential third group).

Nomenclature proposal approved in December 2012

IMA 12-F: A new root-name for the amphibole composition □(NaMn²⁺)(Mg₄Al)Si₈O₂₂(OH)₂

The above composition, mentioned as “root-name11” in the newly-approved amphibole report, has been assigned the name “ghoseite”, in honour of Subrata Ghose (b. 1932), Emeritus Professor at the University of Washington, Seattle, USA. Accordingly, the new mineral IMA 2003-066, whose endmember composition is □(NaMn²⁺)(Mg₄Fe³⁺)Si₈O₂₂(OH)₂, is named ferri-ghoseite.