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CNMNC Newsletter

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

NEWSLETTER 23

New minerals and nomenclature modifications approved in 2014 and 2015

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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

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NEW MINERAL PROPOSALS APPROVED IN OCTOBER 2014

IMA No. **2014-039**
Meierite
$Ba_{44}Si_{66}Al_{30}O_{192}Cl_{25}(OH)_{33}$
Gun Claim, approximately 5 km SE of Itsi Lakes, Yukon, Canada (130º0′51″W, 62º50′50″N)
R.C. Peterson*, Gunnar Färber, Lee Groat, Laura MacNeil, Jim Evans, Brian Joy and Thomas Witzke
*E-mail: Peterson@queensu.ca
Zeolite supergroup
Cubic: *Im*3*m*; structure determined
a = 18.5502(4) Å
4.388(70), 3.288(34), 3.189(100), 3.016(72), 2.803(42), 2.629(31), 2.323(46), 2.287(59)
Type material is deposited in the collections of the Royal Ontario Museum, Toronto, Ontario, Canada, specimen number M56744
How to cite: Peterson, R.C., Färber, G., Groat, L., MacNeil, L., Evans, J., Joy, B. and Witzke, T. (2015) Meierite, IMA 2014-039. CNMNC Newsletter No. 23, February 2015, page 52; *Mineralogical Magazine*, **79**, 51–58.

IMA No. **2014-061**
Erazoite
Cu_4SnS_6
Soledad mine, El Guanaco ore deposit, Antofagasta Province, Chile (25º06′22″S, 69º32′10″W)
Jochen Schlüter*, Thomas Malcherek, Chris Stanley, Maurizio Dini and Arturo A. Molina Donoso
*E-mail: Jochen.Schlueter@uni-hamburg.de
Known synthetic analogue
Trigonal: $R\bar{3}m$
a = 3.756(8), *c* = 32.91(4) Å
3.664(8), 3.265(8), 3.022(100), 2.313(7), 1.999(10), 1.877(47), 1.667(13), 1.592(12)
Type material is deposited in the collections of the Mineralogical Museum of the University of Hamburg, Grindelallee 48, D-20146 Hamburg, Germany, specimen number MD 717
How to cite: Schlüter, J., Malcherek, T., Stanley, C., Dini, M. and Molina Donoso, A.A. (2015) Erazoite, IMA 2014-061. CNMNC Newsletter No. 23, February 2015, page 52; *Mineralogical Magazine*, **79**, 51–58.

IMA No. **2014-062**
Ziminaite
$Fe_6^{3+}(VO_4)_6$
Bezymyannyi volcano, Kamchatka Peninsula, Kamchatka Oblast', Far-Eastern Region, Russia (55º58′N, 160º36′E)
Igor V. Pekov*, Oleg I. Siidra, Vasiliy O. Yapaskurt, Yury S. Polekhovsky and Pavel M. Kartashov
*E-mail: igorpekov@mail.ru
Howardevansite group
Triclinic: $P\bar{1}$; structure determined
a = 8.012(4), *b* = 9.345(5), *c* = 6.678(3) Å, α = 106.992(10), β = 101.547(8), γ = 96.594(11)º
3.751(17), 3.539(86), 3.270(67), 3.209(100), 3.090(20), 3.041(18), 2.934(14), 1.665(24)
Type material is deposited in the collections of the Fersman Mineralogical Museum of the Russian Academy of Sciences, Moscow, Russia, registration number 4603/1
How to cite: Pekov, I.V., Siidra, O.I., Yapaskurt, V.O., Polekhovsky, Y.S. and Kartashov, P.M. (2015) Ziminaite, IMA 2014-062. CNMNC Newsletter No. 23, February 2015, page 52; *Mineralogical Magazine*, **79**, 51–58.

IMA No. **2014-063**
Eckerite
Ag_2CuAsS_3
Lengenbach quarry, Imfeld, Binn Valley, Canton Valais, Switzerland (46º21′54″N, 8º13′15″E)
Luca Bindi*, Fabrizio Nestola, Stefan Graeser, Peter Tropper and Thomas Raber
*E-mail: luca.bindi@unifi.it
New structure type
Monoclinic: *C*2/*c*; structure determined
a = 11.8643(3), *b* = 6.2338(1), *c* = 16.6785(4) Å, β = 110.842(3)º
3.446(70), 3.246(50), 2.941(100), 2.776(40), 2.134(50), 2.084(18), 2.076(40), 1.738(40)
Type material is deposited in the collections of the Museo di Storia Naturale, Università di Firenze, Via La Pira 4, I-50121 Firenze, Italy, catalogue number 3144/I
How to cite: Bindi, L., Nestola, F., Graeser, S., Tropper, P. and Raber, T. (2015) Eckerite, IMA 2014-063. CNMNC Newsletter No. 23, February 2015, page 52; *Mineralogical Magazine*, **79**, 51–58.

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IMA No. **2014-064**

Flurlite

$Zn_3Mn^{2+}Fe^{3+}(PO_4)_3(OH)_2{\cdot}9H_2O$

Cornelia mine, Hagendorf-Süd pegmatite, Hagendorf, Oberpfalz, Bavaria, Germany (49º39′1″N, 12º27′35″E)

Ian E. Grey*, Erich Keck, W. Gus Mumme, Allan Pring and Colin M. MacRae

*E-mail: Ian.Grey@csiro.au

Related to schoonerite

Monoclinic: $P2_1/m$; structure determined

a = 6.3894(8), b = 11.037(1), c = 13.063(2) Å, β = 99.37(2)º

12.900(100), 8.375(10), 6.072(14), 5.567(8), 5.080(7), 4.297(21), 3.221(7), 2.763(35)

Type material is deposited in the mineralogical collections of Museum Victoria, Melbourne, Victoria, Australia, registration number M53238

How to cite: Grey, I.E., Keck, E., Mumme, W.G., Pring, A. and MacRae, C.M. (2015) Flurlite, IMA 2014-064. CNMNC Newsletter No. 23, February 2015, page 53; *Mineralogical Magazine*, **79**, 51–58.

IMA No. **2014-065**

Tululite

$Ca_{14}(Fe^{3+},Al)(Al,Zn,Fe^{3+},Si,P,Mn,Mg)_{15}O_{36}$

Tulul al Hammam, Siwaqa area, Jordan (31º32′N, 36º12′E)

Hani N. Khoury*, Ella V. Sokol, Svetlana N. Kokh, Yurii V. Seryotkin, Elena N. Nigmatulina, Sergey V. Goryainov, Elena V. Belogub and Ian D. Clark

*E-mail: khouryhn@yahoo.com

New structure type

Cubic: $F23$; structure determined

a = 14.9346(4) Å

2.874(44), 2.874(33), 2.640(100), 2.524(31), 2.524(23), 2.278(30), 1.760(16), 1.524(25)

Type materialis deposited in the collections of the Central Siberian Geological Museum of the V.S. Sobolev Institute of Geology and Mineralogy, 3 Ac. Koptyuga Avenue, Novosibirsk 630090, Russia, catalogue number VII-91/1

How to cite: Khoury, H.N., Sokol, E.V., Kokh, S.N., Seryotkin, Y.V., Nigmatulina, E.N., Goryainov, S.V., Belogub, E.V. and Clark, I.D. (2015) Tululite, IMA 2014-065. CNMNC Newsletter No. 23, February 2015, page 53; *Mineralogical Magazine*, **79**, 51–58.

IMA No. **2014-066**

Esquireite

$BaSi_6O_{13}{\cdot}7H_2O$

Esquire #1 claim, Rush Creek, Fresno Co., California, USA (36º58′25″N, 119º15′01″W) and Trumbull Peak, Mariposa Co., California, USA (37º41′31″N, 119º51′51″W)

Anthony R. Kampf*, Robert M. Housley, Gail E. Dunning and Robert E. Walstrom

*E-mail: akampf@nhm.org

New structure type

Monoclinic: $C2$; structure determined

a = 13.601(4), b = 4.922(1), c = 15.092(5) Å, β = 111.58(2)º

7.02(38), 5.11(33), 4.649(66), 4.191(100), 3.339(65), 2.967(32), 2.343(33), 2.261(35)

Cotype material is deposited in the collections of the Natural History Museum of Los Angeles County, 900 Exposition Boulevard, Los Angeles, California 90007, USA, catalogue numbers 64540, 64541, 64542, 64543 and 64544

How to cite: Kampf, A.R., Housley, R.M., Dunning, G.E. and Walstrom, R.E. (2015) Esquireite, IMA 2014-066. CNMNC Newsletter No. 23, February 2015, page 53; *Mineralogical Magazine*, **79**, 51–58.

IMA No. **2014-067**

Carlsonite

$(NH_4)_5Fe_3^{3+}O(SO_4)_6{\cdot}7H_2O$

Huron River, approximately 1.5 km west of Milan, Ohio, USA (41º17′42″N, 82º37′30″W)

Anthony R. Kampf*, R. Peter Richards, Barbara P. Nash and James B. Murowchick

*E-mail: akampf@nhm.org

Structurally related to metavoltine

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

a = 9.5927(2), b = 9.7679(3), c = 18.3995(13) Å, α = 93.250(7), β = 95.258(7), γ = 117.993(8)º

9.23(100), 8.26(40), 7.57(43), 4.93(23), 3.328(20), 3.246(15), 3.144(41), 3.035(16)

Type and cotype material is deposited in the collections of the Natural History Museum of Los Angeles County, 900 Exposition Boulevard, Los Angeles, California 90007, USA, catalogue numbers 65544 and 65545, respectively

How to cite: Kampf, A.R., Richards, R.P., Nash, B.P. and Murowchick, J.B. (2015) Carlsonite, IMA 2014-067. CNMNC Newsletter No. 23, February 2015, page 53; *Mineralogical Magazine*, **79**, 51–58.

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IMA No. **2014-068**

Fermiite

$Na_4(UO_2)(SO_4)_3 \cdot 3H_2O$

Blue Lizard Mine, Red Canyon, White Canyon District, San Juan Co., Utah, USA (37º33′26″N, 110º17′44″W)

Anthony R. Kampf*, Jakub Plášil, Anatoly V. Kasatkin, Joe Marty and Jiří Čejka

*E-mail: akampf@nhm.org

Structurally related to meisserite

Orthorhombic: $Pmn2_1$; structure determined

a = 11.8864(2), b = 7.8861(1), c = 15.3826(11) Å

7.71(43), 7.01(100), 6.00(49), 4.70(42), 3.476(85), 3.336(55), 3.131(57), 2.762(46)

Cotype material is deposited in the collections of the Natural History Museum of Los Angeles County 900 Exposition Boulevard, Los Angeles, California 90007, USA, catalogue numbers 65546, 65547 and 65548, and the Fersman Mineralogical Museum of the Russian Academy of Sciences, Moscow, Russia, registration number 4607/1

How to cite: Kampf, A.R., Plášil, J., Kasatkin, A.V., Marty, J. and Čejka, J. (2015) Fermiite, IMA 2014-068. CNMNC Newsletter No. 23, February 2015, page 54; *Mineralogical Magazine*, **79**, 51–58.

NEW MINERAL PROPOSALS APPROVED IN NOVEMBER 2014

IMA No. **2014-069**

Hedegaardite

$(Ca,Na)_9(Ca,Na)Mg(PO_4)_6(PO_3OH)$

Punta de Lobos, Rio Seco, 90 km south of Iquique, Tarapacá Region, Chile (21º01′25″S, 70º10′16″W) and Cerro Mejillones, Mejillones Peninsula, Mejillones, Antofagasta Region, Chile (23º06′02″S, 70º30′48″W)

Thomas Witzke*, Brian L. Phillips, William Woerner, José M.V. Countinho, Gunnar Färber and Reynaldo R. Contreira Filho

*E-mail: thomas.witzke@panalytical.com

Whitlockite group

Trigonal: $R3c$; structure determined

a = 10.3519(9), c = 37.064(5) Å

5.189 (37), 3.431(35), 3.190(61), 2.862(100), 2.741(21), 2.595(68), 1.922(25), 1.715(33)

Type material is deposited in the mineralogical collection of the Bergakademie Freiberg, Freiberg, Germany, catalogue numbers 83808 (Punta de Lobos) and 83809 (Cerro Mejillones)

How to cite: Witzke, T., Phillips, B.L., Woerner, W., Countinho, J.M.V., Färber, G. and Contreira Filho, R.R. (2015) Hedegaardite, IMA 2014-069. CNMNC Newsletter No. 23, February 2015, page 54; *Mineralogical Magazine*, **79**, 51–58.

IMA No. **2014-070**

Dyrnaesite-(La)

$Na_8Ce^{4+}(La,REE)_2(PO_4)_6$

Tasseq slope, Ilímaussaq alkaline intrusion, Narsaq, Greenland (60º57′15″N, 45º56′35″W)

Jørn G. Rønsbo, Tonči Balić-Žunić* and Ole V. Petersen

*E-mail: toncib@snm.ku.dk

Related to vitusite-(Ce)

Orthorhombic: *Pnma*; structure determined

a = 18.4662(7), b = 16.0106(5), c = 7.0274(2) Å

6.57(100), 4.62(40), 4.14(28), 3.86(38), 3.50(40), 2.80(86), 2.67(54), 1.930(34)

Type material is deposited in the mineralogical collections of the Natural History Museum, University of Copenhagen, Copenhagen, Denmark, specimen number 2014.1

How to cite: Rønsbo, J.G., Balić-Žunić, T. and Petersen, O.V. (2015) Dyrnaesite-(La), IMA 2014-070. CNMNC Newsletter No. 23, February 2015, page 54; *Mineralogical Magazine*, **79**, 51–58.

IMA No. **2014-072**

Mianningite

$(\square,Pb,Ce,Na)(U^{4+},Mn,U^{6+})Fe_2^{3+}(Ti,Fe^{3+})_{18}O_{38}$

Baozi Hill, near to the Maoniuping REE mine, Mianning county, Sichuan Province, China (28º24′20″N, 101º59′3″E)

Xiangkun Ge*, Guang Fan, Guowu Li, Ganfu Shen, Zhangru Chen and Yujie Ai

*E-mail: gxk0621@163.com

Crichtonite group

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

a = 10.3462(5), c = 20.837(2) Å

3.065(75), 2.883(55), 2.627(100), 2.476(55), 2.254(70), 2.144(100), 1.704(55), 1.545(60)

Type material is deposited in the collections of the Geological Museum of China, Beijing, China, registration number M12189

How to cite: Ge, X., Fan, G., Li, G., Shen, G., Chen, Z. and Ai, Y. (2015) Mianningite, IMA 2014-072. CNMNC Newsletter No. 23, February 2015, page 54; *Mineralogical Magazine*, **79**, 51–58.

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IMA No. **2014-073**
Oppenheimerite
$Na_2(UO_2)(SO_4)_2{\cdot}3H_2O$
Blue Lizard Mine, Red Canyon, White Canyon District, San Juan County, Utah, USA (37º33′26″N, 110º17′44″W)
Anthony R. Kampf*, Jakub Plášil, Anatoly V. Kasatkin, Joe Marty and Jiří Čejka
*E-mail: akampf@nhm.org
New structure type
Triclinic: $P\bar{1}$; structure determined
a = 7.9576(6), b = 8.1952(6), c = 9.8051(7) Å, α = 65.967(5), β = 70.281(5), γ = 84.516(6)º
7.29(31), 6.85(73), 5.39(47), 4.253(29), 3.700(47), 3.257(100), 2.669(33), 2.346(28)
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 65549, 65550 and 65551, and of the Fersman Mineralogical Museum of the Russian Academy of Sciences, Moscow, Russia, registration number 4608/1
How to cite: Kampf, A.R., Plášil, J., Kasatkin, A.V., Marty, J. and Čejka, J. (2015) Oppenheimerite, IMA 2014-073. CNMNC Newsletter No. 23, February 2015, page 55; *Mineralogical Magazine*, **79**, 51–58.

IMA No. **2014-074**
Bettertonite
$Al_6(AsO_4)_3(OH)_9{\cdot}16H_2O$
Penberthy Croft mine, 8 km east of Penzance, St Hilary Parish, Cornwall, UK (50º8′25″N, 5º25′20″W)
Ian E. Grey*, Anthony R. Kampf, Jason R. Price and Colin M. MacRae
*E-mail: Ian.Grey@csiro.au
New structure type
Monoclinic: $P2_1/c$; structure determined
a = 7.773(2), b = 26.991(5), c = 15.867(3) Å, β = 94.22(3)º
13.648(100), 13.505(50), 7.805(50), 7.461(30), 5.880(20), 5.622(12), 3.589(20), 2.857(14)
Cotype material is deposited in the mineralogical collections of Museum Victoria, Melbourne, Victoria, Australia, registration number M53274, and the Natural History Museum, London, UK, registration number BM2014,100
How to cite: Grey, I.E., Kampf, A.R., Price, J.R. and MacRae, C.M. (2015) Bettertonite, IMA 2014-074. CNMNC Newsletter No. 23, February 2015, page 55; *Mineralogical Magazine*, **79**, 51–58.

IMA No. **2014-075**
Lefontite
$Fe_2Al_2Be(PO_4)_2(OH)_6$
João Teodoro mine, Linópolis district, Divino das Laranjeiras, Minas Gerais, Brazil (18º46′S, 41º28′W)
Hexiong Yang*, Robert T. Downs, Stanley H. Evans, Shaunna M. Morrison and Benjamin N. Schumer
*E-mail: hyang@u.arizona.edu
Related to childrenite and eosphorite
Orthorhombic: *Cmca*; structure determined
a = 7.0087(3), b = 10.5082(4), c = 13.1179(5) Å
6.600(97), 5.245(100), 4.872(42), 4.360(73), 4.105(61), 3.369(54), 2.622(38), 2.357(36)
Cotype material is deposited in the collections of the Mineral Museum of the University of Arizona, Tucson, Arizona, USA, catalogue number 19802, and the RRUFF Project, deposition number R140428
How to cite: Yang, H., Downs, R.T., Evans, S.H., Morrison, S.M. and Schumer, B.N. (2015) Lefontite, IMA 2014-075. CNMNC Newsletter No. 23, February 2015, page 55; *Mineralogical Magazine*, **79**, 51–58.

NEW MINERAL PROPOSALS APPROVED IN DECEMBER 2014

IMA No. **2014-071**
Arrojadite-(BaNa)
$BaNa_3(NaCa)Fe^{2+}_{13}Al(PO_4)_{11}(PO_3OH)(OH)$
Luna pegmatitic dyke, Dorio (LC), Lombardy, Italy (46º06′36″N, 9º19′59″E)
Pietro Vignola, Frédéric Hatert*, Maxime Baijot, Fabrice Dal Bo, Sergio Andò, Danilo Bersani, Andrea Risplendente and Francesco Vanini
*E-mail: fhatert@ulg.ac.be
Arrojadite group
Monoclinic: $C2/c$; structure determined
a = 16.4984(6), b = 10.0228(3), c = 24.648(1) Å, β = 105.850(4)º
4.621(22), 3.488(28), 3.303(46), 3.137(100), 2.936(22), 2.878(32), 2.818(61), 2.667(35)
Type material is deposited in the mineralogical collections of the Museo Civico di Storia Naturale, Milano, Italy, sample number 38718, and the Laboratory of Mineralogy, University of Liège, Liège, Belgium, sample number 20391

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How to cite: Vignola, P., Hatert, F., Baijot, M., Dal Bo, F., Andò, S., Bersani, D., Risplendente, A. and Vanini, F. (2015) Arrojadite-(BaNa), IMA 2014-071. CNMNC Newsletter No. 23, February 2015, page 55; *Mineralogical Magazine*, **79**, 51–58.

IMA No. **2014-076**
Vanderheydenite
$Zn_6(PO_4)_2(SO_4)(OH)_4{\cdot}7H_2O$
Block 14 opencut, Broken Hill, New South Wales, Australia
Peter Elliott* and Uwe Kolitsch
*E-mail: peter.elliott@adelaide.edu.au
New structure type
Monoclinic: $P2_1/n$; structure determined
$a = 6.2040(12)$, $b = 19.619(4)$, $c = 7.7821(16)$ Å, $\beta = 90.67(3)^o$
9.826(66), 7.296(14), 6.134(100), 4.368(10), 3.368(15), 3.069(15), 2.778(10), 2.648(10)
Type material is deposited in the mineralogical collections of the South Australian Museum, Adelaide, South Australia, Australia, registration number G32512
How to cite: Elliott, P. and Kolitsch, U. (2015) Vanderheydenite, IMA 2014-076. CNMNC Newsletter No. 23, February 2015, page 56; *Mineralogical Magazine*, **79**, 51–58.

IMA No. **2014-077**
Ralphcannonite
$AgZn_2TlAs_2S_6$
Lengenbach quarry, Imfeld, Binn Valley, Canton Valais, Switzerland (46º21′54″N, 8º13′15″E)
Luca Bindi*, Cristian Biagioni, Thomas Raber, Philippe Roth and Fabrizio Nestola
*E-mail: luca.bindi@unifi.it
Routhierite isotypic series
Tetragonal: $I\bar{4}2m$; structure determined
$a = 9.861(2)$, $c = 11.125(3)$ Å
4.100(85), 3.471(40), 3.118(17), 2.954(100), 2.656(20), 2.583(17), 2.465(24), 2.460(39)
Type material is deposited in the mineralogical collections of the Museo di Storia Naturale, Università di Firenze, Via La Pira 4, Firenze, Italy, catalogue number 3145/I
How to cite: Bindi, L., Biagioni, C., Raber, T., Roth, P. and Nestola, F. (2015) Ralphcannonite, IMA 2014-077. CNMNC Newsletter No. 23, February 2015, page 56; *Mineralogical Magazine*, **79**, 51–58.

IMA No. **2014-078**
Svornostite
$K_2Mg[(UO_2)(SO_4)_2]_2{\cdot}8H_2O$
Geschieber vein, 5th level of the Svornost mine, Jáchymov ore district, Western Bohemia, Czech Republic (50º22′21″N, 12º54′42″E)
Jakub Plášil*, Anatoly V. Kasatkin, Jan Hloušek, Milan Novák, Jiří Čejka and Ladislav Lapčák
*E-mail: plasil@fzu.cz
New structure type
Orthorhombic: $Pmn2_1$; structure determined
$a = 12.7850(3)$, $b = 8.2683(4)$, $c = 11.2163(3)$ Å
8.279(50), 6.398(100), 5.060(55), 4.645(40), 4.610(38), 3.881(34), 3.318(44), 3.009(44)
Type material is deposited in the collections of the Fersman Mineralogical Museum of the Russian Academy of Sciences, Moscow, Russia, registration number 4537/1
How to cite: Plášil, J., Kasatkin, A.V., Hloušek, J., Novák, M., Čejka, J. and Lapčák, L. (2015) Svornostite, IMA 2014-078. CNMNC Newsletter No. 23, February 2015, page 56; *Mineralogical Magazine*, **79**, 51–58.

IMA No. **2014-079**
Ježekite
$Na_8[(UO_2)(CO_3)_3](SO_4)_2{\cdot}3H_2O$
Geschieber vein, 5th level of the Svornost mine, Jáchymov ore district, Western Bohemia, Czech Republic (50º22′21″N, 12º54′42″E)
Jakub Plášil*, Jan Hloušek, Anatoly V. Kasatkin, Dmitry I. Belakovskiy, Jiří Čejka and Dmitry Chernishov
*E-mail: plasil@fzu.cz
New structure type
Hexagonal: $P\bar{6}2m$; structure determined
$a = 9.0664(11)$, $c = 6.9110(6)$ Å
7.861(59), 6.925(20), 5.193(100), 4.534(44), 3.415(23), 2.751(17), 2.728(20), 2.618(25)
Type material is deposited in the collections of the Fersman Mineralogical Museum of the Russian Academy of Sciences, Moscow, Russia, registration number 4606/1
How to cite: Plášil, J., Hloušek, J., Kasatkin, A.V., Belakovskiy, D.I., Čejka, J. and Chernishov, D. (2015) Ježekite, IMA 2014-079. CNMNC Newsletter No. 23, February 2015, page 56; *Mineralogical Magazine*, **79**, 51–58.

IMA No. **2014-080**
Pd_2Si
Kapalagulu Intrusion, Lake Tanganyika,

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Tanzania (30º03′51″E, 5º53′16″S and 30º05′37″E, 5º54′26″S), and the UG-2 chromitite, Bushveld Complex, South Africa
Louis J. Cabri*, Andrew M. McDonald, Chris J. Stanley, Nikolay S. Rudashevsky, Glenn Poirier, Harry R. Wilhelmij, William Zhe and Vladimir N. Rudashevsky
*E-mail: lcabri@sympatico.ca
Known synthetic analogue
Hexagonal: $P\bar{6}2m$
a = 6.496(5), c = 3.433(4) Å
2.35(vs), 2.16(s), 2.12(s), 1.87(m), 1.71(m), 1.41(m), 1.33(m), 1.21(m)
Type material has been deposited in the collections of the Canadian Museum of Nature, Gatineau, Quebec, Canada, catalogue number CMNMC 86891
How to cite: Cabri, L.J., McDonald, A.M., Stanley, C.J., Rudashevsky, N.S., Poirier, G., Wilhelmij, H.R., Zhe, W. and Rudashevsky, V.N. (2015) IMA 2014-080. CNMNC Newsletter No. 23, February 2015, page 56; *Mineralogical Magazine*, **79**, 51–58.

IMA No. **2014-081**
Arsmirandite
$Na_{18}Cu_{12}Fe^{3+}O_8(AsO_4)_8Cl_5$
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).
Igor V. Pekov*, Sergey N. Britvin, Vasiliy O. Yapaskurt, Yury S. Polekhovsky, Sergey V. Krivovichev, Marina F. Vigasina and Evgeny G. Sidorov
*E-mail: igorpekov@mail.ru
New structure type
Monoclinic: $C2/m$; structure determined
a = 10.742(2), b = 21.019(3), c = 11.787(2) Å, β = 117.06(3)º
10.58(79), 8.74(100), 5.381(46), 5.288(80), 3.770(33), 2.693(28), 2.643(30), 2.574(74)
Type material is deposited in the collections of the Fersman Mineralogical Museum of the Russian Academy of Sciences, Moscow, Russia, registration number 4613/1
How to cite: Pekov, I.V., Britvin, S.N., Yapaskurt, V.O., Polekhovsky, Y.S., Krivovichev, S.V., Vigasina, M.F. and Sidorov, E.G. (2015) Arsmirandite, IMA 2014-081. CNMNC Newsletter No. 23, February 2015, page 57; *Mineralogical Magazine*, **79**, 51–58.

IMA No. **2014-082**
Tvrdýite
$Fe^{2+}Fe^{3+}_2Al_3(PO_4)_4(OH)_5(H_2O)_4{\cdot}2H_2O$
Huber open pit, Krásno ore district, Slavkovský Les Mountains, Czech Republic (50º07′22″N, 12º48′2″E)
Jiri Sejkora*, Ian E. Grey, Anthony R. Kampf and Jason R. Price
*E-mail: jiri_sejkora@nm.cz
Isostructural with beraunite
Monoclinic: $C2/c$; structure determined
a = 20.564(4), b = 5.101(1), c = 18.883(4) Å, β = 93.68(3)º
10.227(100), 9.400(6), 7.156(14), 5.120(7), 3.416(11), 3.278(6), 2.562(5), 2.051(3)
Type material is housed in the collections of the Department of Mineralogy and Petrology, National Museum Prague, Cirkusová 1740, CZ-193 00 Prague 9, Czech Republic, catalogue number P1P 11/2014
How to cite: Sejkora, J., Grey, I.E., Kampf, A.R. and Price, J.R. (2015) Tvrdýite, IMA 2014-082. CNMNC Newsletter No. 23, February 2015, page 57; *Mineralogical Magazine*, **79**, 51–58.

IMA No. **2014-083**
Agmantinite
Ag_2MnSnS_4
Uchucchacua polymetallic deposit, Oyon district, Catajambo, Lima Department, Peru (10º37′15″S, 76º48′0″W)
Frank N. Keutsch*, Dan Topa, Rie Takagi Fredrickson, Emil Makovicky and Werner Paar
*E-mail: keutsch@chem.wisc.edu
Structurally related to wurtzite
Orthorhombic: $P2_1nm$; structure determined
a = 6.632(2), b = 6.922(2), c = 8.156(2) Å
3.51(s), 3.32(w), 3.11(vs), 2.42(w), 2.04(m), 1.88(m), 1.73(m)
Type material is deposited in the reference collection of the Naturhistorisches Museum Wien, Wien, Austria, specimen number N 9736
How to cite: Keutsch, F.N., Topa, D., Takagi Fredrickson, R., Makovicky, E. and Paar, W. (2015) Agmantinite, IMA 2014-083. CNMNC Newsletter No. 23, February 2015, page 57; *Mineralogical Magazine*, **79**, 51–58.

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NEW MINERAL PROPOSALS APPROVED IN JANUARY 2015

IMA No. **2014-084**
Abuite
$CaAl_2(PO_4)_2F_2$
Hinomaru-Nago mine, Kiyo area, Abu, Abu County, Yamaguchi Prefecture, Japan (34º53′N 131º52′E)
Satomi Enju and Seiichiro Uehara*
*E-mail: uehara@geo.kyushu-u.ac.jp
Known synthetic analogue (with Sr in the place of Ca)
Orthorhombic: $P2_12_12_1$
a = 11.818(2), b = 11.993(3), c = 4.6872(8) Å
4.362(25), 3.683(32), 3.529(43), 3.139(86), 2.951(100), 2.928(80), 2.183(24), 2.046(21)
Type material is deposited in the collections of the Kitakyushu Museum of Natural History and Human History, Kitakyushu, Japan, registered number KMNHM000003
How to cite: Enju, S. and Uehara, S. (2015) Abuite, IMA 2014-084. CNMNC Newsletter No. 23, February 2015, page 58; *Mineralogical Magazine*, **79**, 51–58.

IMA No. **2014-085**
Lipuite
$KNa_8Mn_5^{3+}Mg_{0.5}[Si_{12}O_{30}(OH)_4](PO_4)O_2(OH)_2 \cdot 4H_2O$
N'Chwaning III mine, Kalahari Manganese Fields, Northern Cape Province, South Africa (27º7′50.81″S, 22º50′28.83″E)
Hexiong Yang*, Xiangping Gu, Xiande Xie, Jaco J. van Nieuwenhuizen, Stanley H. Evans and Robert T. Downs
*E-mail: hyang@u.arizona.edu
New structure type
Orthorhombic: *Pnnm*; structure determined
a = 9.080(3), b = 12.222(3), c = 17.093(5) Å
9.955(52), 4.853(68), 3.965(52), 2.889(100), 2.772(49), 2.617(57), 2.477(68), 2.084(65)
Cotype material is deposited in the collections of the Mineral Museum of the University of Arizona, Tucson, Arizona, USA, catalogue number 20010, and the RRUFF Project, deposition number R140496
How to cite: Yang, H., Gu, X., Xie, X., van Nieuwenhuizen, J.J., Evans, S.H. and Downs, R.T. (2015) Lipuite, IMA 2014-085. CNMNC Newsletter No. 23, February 2015, page 58; *Mineralogical Magazine*, **79**, 51–58.

REVISION OF CHEMICAL FORMULA APPROVED IN JANUARY 2015

IMA 14-I: Aradite
In the original submission of the mineral aradite (IMA 2013-047) the authors erroneously used EPMA results of another grain; therefore aradite was approved with an incorrect chemical formula (see CNMNC Newsletter 17). The correct end-member formula of aradite is $BaCa_6[(SiO_4)(VO_4)](VO_4)_2F$.

REVISED CHEMICAL FORMULA

A paper on the mineral camerolaite has been published recently [*Mineralogical Magazine*, **78**, 1527–1552 (2014)] in which the ideal chemical formula of the mineral is given as $Cu_6Al_3(OH)_{18}(H_2O)_2[Sb(OH)_6](SO_4)$. In this formula ($CO_3$) is lacking, while it was present as an essential component in the previously accepted formula of camerolaite. These data were examined carefully by the CNMNC officers and were considered reliable. Accordingly it was agreed to modify the formula of camerolaite in the official IMA List of Minerals.

ERRATUM

IMA No. 2014-044 Wetherillite
In CNMNC Newsletter 22, the mineral name was typed incorrectly as whetherillite. The correct name is wetherillite.

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