

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

## NEWSLETTER 23

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### 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

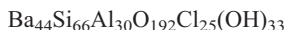
**Citation details concern the fact that this information will be published in the *Mineralogical Magazine* on a routine basis, as well as being added month by month to the Commission's web site.**

**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

**NEW MINERAL PROPOSALS APPROVED IN  
OCTOBER 2014****IMA No. 2014-039**

Meierite



Gun Claim, approximately 5 km SE of Itsi  
Lakes, Yukon, Canada (130°0'51"W,  
62°50'50"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:  $Im\bar{3}m$ ; structure determined

$$a = 18.5502(4) \text{ \AA}$$

$$4.388(70), 3.288(34), 3.189(100), 3.016(72), \\ 2.803(42), 2.629(31), 2.323(46), 2.287(59)$$

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



Soledad mine, El Guanaco ore deposit,  
Antofagasta Province, Chile (25°06'22"S,  
69°32'10"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:  $R\bar{3}m$ 

$$a = 3.756(8), c = 32.91(4) \text{ \AA}$$

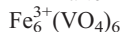
$$3.664(8), 3.265(8), 3.022(100), 2.313(7), \\ 1.999(10), 1.877(47), 1.667(13), 1.592(12)$$

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



Bezmyannyi volcano, Kamchatka Peninsula,  
Kamchatka Oblast', Far-Eastern Region, Russia  
(55°58'N, 160°36'E)

Igor V. Pekov\*, Oleg I. Siidra, Vasilii O.  
Yapaskurt, Yury S. Polekhovskiy and Pavel M.  
Kartashov

\*E-mail: igorpekov@mail.ru

Howardevansite group

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

$$a = 8.012(4), b = 9.345(5), c = 6.678(3) \text{ \AA}, \alpha = \\ 106.992(10), \beta = 101.547(8), \gamma = 96.594(11)^\circ \\ 3.751(17), 3.539(86), 3.270(67), 3.209(100), \\ 3.090(20), 3.041(18), 2.934(14), 1.665(24)$$

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., Polekhovskiy, 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



Lengenbach quarry, Imfeld, Binn Valley,  
Canton Valais, Switzerland (46°21'54"N,  
8°13'15"E)

Luca Bindi\*, Fabrizio Nestola, Stefan Graeser,  
Peter Tropper and Thomas Raber

\*E-mail: luca.bindi@unifi.it

New structure type

Monoclinic:  $C2/c$ ; structure determined

$$a = 11.8643(3), b = 6.2338(1), c = 16.6785(4) \text{ \AA}, \\ \beta = 110.842(3)^\circ \\ 3.446(70), 3.246(50), 2.941(100), 2.776(40), \\ 2.134(50), 2.084(18), 2.076(40), 1.738(40)$$

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.

## IMA No. 2014-064

Flurlite



Cornelia mine, Hagendorf-Süd pegmatite,  
Hagendorf, Oberpfalz, Bavaria, Germany  
(49°39'1"N, 12°27'35"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,  
 $\beta = 99.37(2)^\circ$

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



Tulul al Hammam, Siwaqa area, Jordan  
(31°32'N, 36°12'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

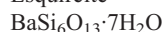
Cubic:  $F23$ ; structure determined  
 $a = 14.9346(4)$  Å  
2.874(44), 2.874(33), 2.640(100), 2.524(31),  
2.524(23), 2.278(30), 1.760(16), 1.524(25)

Type material is 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



Esquire #1 claim, Rush Creek, Fresno Co.,  
California, USA (36°58'25"N, 119°15'01"W)  
and Trumbull Peak, Mariposa Co., California,  
USA (37°41'31"N, 119°51'51"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,  
 $\beta = 111.58(2)^\circ$

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



Huron River, approximately 1.5 km west of  
Milan, Ohio, USA (41°17'42"N, 82°37'30"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,  
 $\alpha = 93.250(7)$ ,  $\beta = 95.258(7)$ ,  $\gamma = 117.993(8)^\circ$   
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.

**IMA No. 2014-068**

Fermiite

Na<sub>4</sub>(UO<sub>2</sub>)(SO<sub>4</sub>)<sub>3</sub>·3H<sub>2</sub>O

Blue Lizard Mine, Red Canyon, White Canyon District, San Juan Co., Utah, USA (37°33'26"N, 110°17'44"W)

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

\*E-mail: akampf@nhm.org

Structurally related to meisserite

Orthorhombic: *Pmn*2<sub>1</sub>; 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)<sub>9</sub>(Ca,Na)Mg(PO<sub>4</sub>)<sub>6</sub>(PO<sub>3</sub>OH)

Punta de Lobos, Rio Seco, 90 km south of Iquique, Tarapacá Region, Chile (21°01'25"S, 70°10'16"W) and Cerro Mejillones, Mejillones Peninsula, Mejillones, Antofagasta Region, Chile (23°06'02"S, 70°30'48"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<sub>8</sub>Ce<sup>4+</sup>(La,REE)<sub>2</sub>(PO<sub>4</sub>)<sub>6</sub>

Tasseq slope, Ilimaussaq alkaline intrusion, Narsaq, Greenland (60°57'15"N, 45°56'35"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

(□,Pb,Ce,Na)(U<sup>4+</sup>,Mn,U<sup>6+</sup>)Fe<sub>2</sub><sup>3+</sup>(Ti,Fe<sup>3+</sup>)<sub>18</sub>O<sub>38</sub>

Baozi Hill, near to the Maoniuping REE mine, Mianning county, Sichuan Province, China (28°24'20"N, 101°59'3"E)

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

\*E-mail: gxx0621@163.com

Crichtonite group

Trigonal: *R3̄*; 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.

## IMA No. 2014-073

Oppenheimerite  
 $\text{Na}_2(\text{UO}_2)(\text{SO}_4)_2 \cdot 3\text{H}_2\text{O}$   
 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, 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,  
 $\alpha = 65.967(5)$ ,  $\beta = 70.281(5)$ ,  $\gamma = 84.516(6)^\circ$   
 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  
 $\text{Al}_6(\text{AsO}_4)_3(\text{OH})_9 \cdot 16\text{H}_2\text{O}$   
 Penberthy Croft mine, 8 km east of Penzance,  
 St Hilary Parish, Cornwall, UK (50°8'25"N,  
 5°25'20"W)  
 Ian E. Grey\*, Anthony R. Kampf, Jason R. Price  
 and Colin M. MacRae  
 \*E-mail: Ian.Grey@csiro.au  
 New structure type  
 Monoclinic:  $C2/c$ ; structure determined  
 $a = 7.773(2)$ ,  $b = 26.991(5)$ ,  $c = 15.867(3)$  Å,  
 $\beta = 94.22(3)^\circ$   
 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 mineralo-  
 gical 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  
 $\text{Fe}_2\text{Al}_2\text{Be}(\text{PO}_4)_2(\text{OH})_6$   
 João Teodoro mine, Linópolis district, Divino  
 das Laranjeiras, Minas Gerais, Brazil (18°46'S,  
 41°28'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)  
 $\text{BaNa}_3(\text{NaCa})\text{Fe}_{13}^{\text{II}}\text{Al}(\text{PO}_4)_{11}(\text{PO}_3\text{OH})(\text{OH})$   
 Luna pegmatitic dyke, Dorio (LC), Lombardy,  
 Italy (46°06'36"N, 9°19'59"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,  
 $\beta = 105.850(4)^\circ$   
 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

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  
 $\text{Zn}_6(\text{PO}_4)_2(\text{SO}_4)(\text{OH})_4 \cdot 7\text{H}_2\text{O}$   
 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,  
 $\beta = 90.67(3)^\circ$   
 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  
 $\text{AgZn}_2\text{TlAs}_2\text{S}_6$   
 Lengenbach quarry, Imfeld, Binn Valley, Canton Valais, Switzerland (46°21'54"N, 8°13'15"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  
 $\text{K}_2\text{Mg}[(\text{UO}_2)(\text{SO}_4)_2]_2 \cdot 8\text{H}_2\text{O}$   
 Geschieber vein, 5<sup>th</sup> level of the Svornost mine, Jáchymov ore district, Western Bohemia, Czech Republic (50°22'21"N, 12°54'42"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  
 $\text{Na}_8[(\text{UO}_2)(\text{CO}_3)_3](\text{SO}_4)_2 \cdot 3\text{H}_2\text{O}$   
 Geschieber vein, 5<sup>th</sup> level of the Svornost mine, Jáchymov ore district, Western Bohemia, Czech Republic (50°22'21"N, 12°54'42"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**

$\text{Pd}_2\text{Si}$   
 Kapalagulu Intrusion, Lake Tanganyika,



Tanzania (30°03'51"E, 5°53'16"S and 30°05'37"E, 5°54'26"S), and the UG-2 chromite, 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:  $P6_2m$

$a = 6.496(5)$ ,  $c = 3.433(4)$  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

$\text{Na}_{18}\text{Cu}_{12}\text{Fe}^{3+}\text{O}_8(\text{AsO}_4)_8\text{Cl}_5$

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\*, Sergey N. Britvin, Vasilii O. Yapaskurt, Yury S. Polekhovskiy, 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,  
 $\beta = 117.06(3)^\circ$

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., Polekhovskiy, 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

Tvrđýite

$\text{Fe}^{2+}\text{Fe}^{3+}\text{Al}_3(\text{PO}_4)_4(\text{OH})_5(\text{H}_2\text{O})_4 \cdot 2\text{H}_2\text{O}$

Huber open pit, Krásno ore district, Slavkovský Les Mountains, Czech Republic (50°07'22"N, 12°48'2"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,  
 $\beta = 93.68(3)^\circ$

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 PIP 11/2014

How to cite: Sejkora, J., Grey, I.E., Kampf, A.R. and Price, J.R. (2015) Tvrđýite, IMA 2014-082. CNMNC Newsletter No. 23, February 2015, page 57; *Mineralogical Magazine*, **79**, 51–58.

#### IMA No. 2014-083

Agmantinite

$\text{Ag}_2\text{MnSnS}_4$

Uchucchacua polymetallic deposit, Oyon district, Catajumbo, Lima Department, Peru (10°37'15"S, 76°48'0"W)

Frank N. Keutsch\*, Dan Topa, Rie Takagi Fredrickson, Emil Makovicky and Werner Paar

\*E-mail: keutsch@chem.wisc.edu

Structurally related to wurtzite

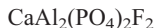
Orthorhombic:  $P2_1nm$ ; structure determined  
 $a = 6.632(2)$ ,  $b = 6.922(2)$ ,  $c = 8.156(2)$  Å  
3.51(s), 3.32(w), 3.11(vs), 2.42(w), 2.04(m), 1.88(m), 1.73(m)

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.

**NEW MINERAL PROPOSALS APPROVED IN  
JANUARY 2015****IMA No. 2014-084**

Abuite



Hinomaru-Nago mine, Kiyo area, Abu, Abu  
County, Yamaguchi Prefecture, Japan (34°53'N  
131°52'E)

Satomi Enju and Seichiro 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)

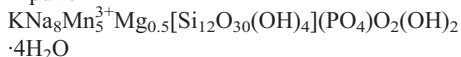
Type material is deposited in the collections of  
the Kitakyushu Museum of Natural History and  
Human History, Kitakyushu, Japan, registered  
number KMNHM000003

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



N'Chwaning III mine, Kalahari Manganese  
Fields, Northern Cape Province, South Africa  
(27°7'50.81''S, 22°50'28.83''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:  $Pnmm$ ; 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  
 $\text{BaCa}_6[(\text{SiO}_4)(\text{VO}_4)](\text{VO}_4)_2\text{F}$ .

**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  
 $\text{Cu}_6\text{Al}_3(\text{OH})_{18}(\text{H}_2\text{O})_2[\text{Sb}(\text{OH})_6](\text{SO}_4)$ . In this  
formula ( $\text{CO}_3$ ) 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.