

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

## NEWSLETTER 10

### New minerals and nomenclature modifications approved in 2011

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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

**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 MAY 2011

IMA No. 2011-007

Kazanskyite

$\text{BaNa}_3\text{Ti}_2\text{Nb}(\text{Si}_2\text{O}_7)_2\text{O}_2(\text{OH})_2(\text{H}_2\text{O})_4$

Kirovskii mine, Mount Kukisvumchorr, Khibiny alkaline massif, Kola Peninsula, Russia  
Fernando Cámara\*, Elena Sokolova and Frank C. Hawthorne

\*E-mail: fernando.camaraartigas@unito.it

New structure type

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

$a = 5.4260(9)$ ,  $b = 7.135(1)$ ,  $c = 25.514(4)$  Å,

$\alpha = 98.172(4)$ ,  $\beta = 90.916(4)$ ,  $\gamma = 89.964(3)^\circ$

DOI: 10.1180/minmag.2011.075.5.2549

4.288(44), 3.938(70), 3.127(39), 2.955(32), 2.895(33), 2.813(100), 2.149(82), 2.128(44)

Type material is deposited in the collections of the Fersman Mineralogical Museum, Russian Academy of Sciences, Moscow, Russia, catalogue number 4103/1

How to cite: Cãmara, F., Sokolova, E. and Hawthorne, F.C. (2011) Kazanskyite, IMA 2011-007. CNMNC Newsletter No. 10, October 2011, page 2549; *Mineralogical Magazine*, **75**, 2549–2561.

#### IMA No. 2011-008

Manganoquadratite

AgMnAsS<sub>3</sub>

Uchucchacua polymetallic deposit, Oyon district, Catajumbo, Lima Department, Peru  
Paola Bonazzi, Luca Bindi\* and Frank N. Keutsch

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

Mn-dominant analogue of quadratite

Tetragonal:  $P4_32_2$ ; structure determined

$a = 5.4496(5)$ ,  $c = 32.949(1)$  Å

3.154(77), 2.746(52), 2.725(100), 2.716(13), 1.934(53), 1.927(27), 1.644(28), 1.577(21)

Type material is deposited in the collections of the Museo di Storia Naturale, Sezione di Mineralogia e Litologia, Università di Firenze, Firenze, Italy, catalogue number 3108/I

How to cite: Bonazzi, P., Bindi, L. and Keutsch, F.N. (2011) Manganoquadratite, IMA 2011-008. CNMNC Newsletter No. 10, October 2011, page 2550; *Mineralogical Magazine*, **75**, 2549–2561.

#### IMA No. 2011-009

Menchettiite

Pb<sub>5</sub>Mn<sub>3</sub>Ag<sub>2</sub>Sb<sub>6</sub>As<sub>4</sub>S<sub>24</sub>

Uchucchacua polymetallic deposit, Oyon district, Catajumbo, Lima Department, Peru  
Luca Bindi\*, Paola Bonazzi and Frank N. Keutsch

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

Member of the ramdohrite-lillianite series

Monoclinic:  $P2_1/n$ ; structure determined

$a = 19.233(2)$ ,  $b = 12.633(3)$ ,  $c = 8.476(2)$  Å,  $\beta = 90.08(2)^\circ$

3.407(39), 3.403(39), 3.285(100), 2.859(26), 2.854(49), 2.852(47), 2.707(24), 2.119(33)

Type material is deposited in the collections of the Museo di Storia Naturale, Sezione di Mineralogia e Litologia, Università di Firenze, Firenze, Italy, catalogue number 3109/I

How to cite: Bindi, L., Bonazzi, P. and Keutsch,

F.N. (2011) Menchettiite, IMA 2011-009. CNMNC Newsletter No. 10, October 2011, page 2550; *Mineralogical Magazine*, **75**, 2549–2561.

#### IMA No. 2011-010

Lucabindiite

(K,NH<sub>4</sub>)As<sub>4</sub>O<sub>6</sub>(Cl,Br)

La Fossa crater, Vulcano, Aeolian archipelago, Italy

Anna Garavelli\*, Donatella Mitolo, Daniela Pinto and Filippo Vurro

\*E-mail: a.garavelli@geomin.uniba.it

Natural analogue of known synthetic phases

Hexagonal:  $P6/mmm$ ; structure determined

$a = 5.2386(7)$ ,  $c = 9.014(2)$  Å

4.537(30), 4.507(52), 3.197(100), 2.619(67), 2.265(19), 1.974(28), 1.603(20), 1.485(21)

Type material is deposited in the collections of the Museo “C.L. Garavelli” in the Dipartimento Geomineralogico, Università degli Studi di Bari “Aldo Moro”, Italy, sample number 11/nm-V28

How to cite: Garavelli, A., Mitolo, D., Pinto, D. and Vurro, F. (2011) Lucabindiite, IMA 2011-010. CNMNC Newsletter No. 10, October 2011, page 2550; *Mineralogical Magazine*, **75**, 2549–2561.

#### IMA No. 2011-011

Oxy-schorl

Na(Fe<sup>2+</sup>Al)Al<sub>6</sub>Si<sub>6</sub>O<sub>18</sub>(BO<sub>3</sub>)<sub>3</sub>(OH)<sub>3</sub>O

Přibyslavice, near Kutná Hora, Central Bohemia Region, Czech Republic, and the Marianna adit, Zlatá Idka, Košice, Slovakia

Peter Bačik\*, Jan Cempírek, Pavel Uher, Daniel Ozdín, Jan Filip, Milan Novák, Radek Škoda, Karel Breiter, Mariana Klementová and Rudolf Ďud’a

\*E-mail: bacikp@fns.uniba.sk

Tourmaline group

Trigonal:  $R3m$ ; structure determined

$a = 15.9853(12)$ ,  $c = 7.1538(6)$  Å

6.364(74), 4.978(28), 4.225(48), 4.000(52), 3.466(100), 2.955(79), 2.583(65), 2.042(31)

Type material is deposited in the collections of the Department of Mineralogy and Petrography, Moravian Museum, Brno, Czech Republic, specimen numbers B10521 and B10522, the East-Slovak Museum, Natural History Division, Košice, Slovakia, specimen number G-12760, and the Department of Mineralogy and Petrology, Faculty of Natural Sciences,

Comenius University, Bratislava, Slovakia, specimen number 7279

How to cite: Bačík, P., Cempírek, J., Uher, P., Ozdín, D., Filip, J., Novák, M., Škoda, R., Breiter, K., Klementová, M. and Ďud'á, R. (2011) Oxy-schorl, IMA 2011-011. CNMNC Newsletter No. 10, October 2011, page 2550; *Mineralogical Magazine*, **75**, 2549–2561.

#### IMA No. 2011-014

Anorpiment

As<sub>2</sub>S<sub>3</sub>

Palomo mine, Castrovirreyna Province, Huancavelica Department, Peru

Anthony R. Kampf\*, Robert T. Downs, Robert M. Housley, Robert A. Jenkins, Jaroslav Hyršl and Gerald V. Gibbs

\*E-mail: akampf@nhm.org

Dimorph of orpiment

Triclinic: *P1*; structure determined

$a = 5.7577(2)$ ,  $b = 8.7169(3)$ ,  $c = 10.2682(7)$  Å,  
 $\alpha = 78.152(7)$ ,  $\beta = 75.817(7)$ ,  $\gamma = 89.861(6)^\circ$   
4.867(97), 4.519(77), 3.702(46), 3.609(82),  
2.880(75), 2.552(100), 2.469(96), 1.817(42)

Type material is deposited in the collections of the Natural History Museum of Los Angeles County, catalogue numbers 63514 and 63544n and the Mineral Museum of the University of Arizona, catalogue number 19326

How to cite: Kampf, A.R., Downs, R.T., Housley, R.M., Jenkins, R.A., Hyršl, J. and Gibbs, G.V. (2011) Anorpiment, IMA 2011-014. CNMNC Newsletter No. 10, October 2011, page 2551; *Mineralogical Magazine*, **75**, 2549–2561.

### NEW MINERAL PROPOSALS APPROVED IN JUNE 2011

#### IMA No. 2011-012

Zavalíaité

(Mn<sup>2+</sup>, Fe<sup>2+</sup>, Mg)<sub>3</sub>(PO<sub>4</sub>)<sub>2</sub>

La Empleada, a granitic pegmatite in the Pringles Department, San Luis Province, Argentina (32°53'38''S 65°55'50''W)

Frédéric Hatert\*, Encarnación Roda-Robles, Philippe de Parseval and Johan Wouters

\*E-mail: fhatert@ulg.ac.be

Sarcopside group

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

$a = 6.088(1)$ ,  $b = 4.814(1)$ ,  $c = 10.484(2)$  Å,  
 $\beta = 89.42(3)^\circ$

6.75(58), 3.54(100), 2.964(38), 2.816(81),

2.537(20), 1.894(6), 1.848(20), 1.652(27)

Type material is deposited in the collections of the Laboratory of Mineralogy, University of Liège, catalogue number 20384

How to cite: Hatert, F., Roda-Robles, E., de Parseval, P. and Wouters, J. (2011) Zavalíaité, IMA 2011-012. CNMNC Newsletter No. 10, October 2011, page 2551; *Mineralogical Magazine*, **75**, 2549–2561.

#### IMA No. 2011-013

Telluromandarinoite

Fe<sub>2</sub><sup>3+</sup>Te<sub>3</sub>O<sub>9</sub>·6H<sub>2</sub>O

Wendy open pit, Tambo mine, El Indio-Tambo mining property, Coquimbo Province, Chile  
Malcolm E. Back\*, Joel D. Grice, B. Darko Sturman, Mark A. Cooper, Robert A. Gault and Phillip C. Walford

\*E-mail: malcolmb@rom.on.ca

Te analogue of mandarinoite

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

$a = 16.9356(5)$ ,  $b = 7.8955(3)$ ,  $c = 10.1678(3)$  Å,  
 $\beta = 98.006(1)^\circ$

8.431(44), 7.153(100), 5.034(11), 3.575(41),  
3.463(21), 2.996(34), 2.826(19), 2.624(11)

Type material is deposited in the collections of the Royal Ontario Museum, Toronto, Ontario, Canada, catalogue number M56017

How to cite: Back, M.E., Grice, J.D., Darko Sturman, B., Cooper, M.A., Gault, R.A. and Walford, P.C. (2011) Telluromandarinoite, IMA 2011-013. CNMNC Newsletter No. 10, October 2011, page 2551; *Mineralogical Magazine*, **75**, 2549–2561.

#### IMA No. 2011-015

Karenwebberite

Na(Fe<sup>2+</sup>, Mn<sup>2+</sup>)PO<sub>4</sub>

Malpensata dike, Piona pegmatite swarm, Colico, Lecco Province, Lombardy, Italy (46°07'20''N 9°19'33''E)

Pietro Vignola, Frédéric Hatert\*, André-Mathieu Fransolet, Olaf Medenbach, Valeria Diella and Sergio Ando'

\*E-mail: fhatert@ulg.ac.be

Triphylite group

Orthorhombic: *Pbmm*; structure determined

$a = 4.882(1)$ ,  $b = 10.387(2)$ ,  $c = 6.091(1)$  Å  
4.867(97), 4.519(77), 3.702(46), 3.609(82),  
2.880(75), 2.552(100), 2.469(96), 1.817(42)

Type material is deposited in the collections of the Laboratory of Mineralogy, University of Liège, Belgium, catalogue number 20385

How to cite: Vignola, P., Hatert, F., Fransolet, A.-M., Medenbach, O., Diella, V. and Ando, S. (2011) Karenwebberite, IMA 2011-015. CNMNC Newsletter No. 10, October 2011, page 2551; *Mineralogical Magazine*, **75**, 2549–2561.

#### IMA No. 2011-016

Shulamitite  
 $\text{Ca}_3\text{TiFe}^{3+}\text{AlO}_8$   
 Negev Desert, Hatrurim Basin, Israel (31°12'45"N 35°14'43"E)  
 V.V. Sharygin\*, B. Lazic, T. Armbruster, M.N. Murashko, R. Wirth, I.O. Galuskina, E.V. Galuskin and Y. Vapnik  
 \*E-mail: sharygin@igm.nsc.ru  
 Intermediate member of the pseudobinary perovskite-brownmillerite series  
 Orthorhombic: *Pmma*; structure determined  
 $a = 5.4200(6)$ ,  $b = 11.064(1)$ ,  $c = 5.5383(7)$  Å  
 $2.71(50)$ ,  $2.68(100)$ ,  $1.940(80)$ ,  $1.842(50)$ ,  $1.582(50)$ ,  $1.559(50)$ ,  $1.337(50)$ ,  $1.170(60)$   
 Type material is deposited in the collections of the Mineralogical Museum of St Petersburg State University, St Petersburg, Russia, catalogue number 1/19465, and the Central Siberian Geological Museum of the V.S. Sobolev Institute of Geology and Mineralogy, Novosibirsk, Russia, catalogue number VII-87/1  
 How to cite: Sharygin, V.V., Lazic, B., Armbruster, T., Murashko, M.N., Wirth, R., Galuskina, I.O., Galuskin, E.V. and Vapnik, Y. (2011) Shulamitite, IMA 2011-016. CNMNC Newsletter No. 10, October 2011, page 2552; *Mineralogical Magazine*, **75**, 2549–2561.

#### IMA No. 2011-017

Terrywallaceite  
 $\text{AgPb}(\text{Sb},\text{Bi})_3\text{S}_6$   
 Level 390, Vein 14, Mina Herminia, Julcani Mining District, Huancavelica, Peru  
 Hexiong Yang\*, William W. Pinch, Robert T. Downs and Stanley H. Evans  
 \*E-mail: hyang@u.arizona.edu  
 Isostructural with gustavite  
 Monoclinic:  $P2_1/c$ ; structure determined  
 $a = 6.9764(4)$ ,  $b = 19.3507(10)$ ,  $c = 8.3870(4)$  Å,  
 $\beta = 107.519(2)^\circ$   
 $3.939(18)$ ,  $3.680(23)$ ,  $3.369(100)$ ,  $3.010(33)$ ,  $2.911(58)$ ,  $2.080(26)$ ,  $2.043(20)$ ,  $1.950(22)$   
 Type material is deposited in the collections of the Mineral Museum of the University of Arizona, catalogue number 19304, and the

RRUFF project, deposition number R100007  
 How to cite: Yang, H., Pinch, W.W., Downs, R.T. and Evans, S.H. (2011) Terrywallaceite, IMA 2011-017. CNMNC Newsletter No. 10, October 2011, page 2552; *Mineralogical Magazine*, **75**, 2549–2561.

#### IMA No. 2011-018

Tazzoliite  
 $\text{Ba}_{4-x}\text{Na}_x\text{Ti}_2\text{Nb}_3\text{SiO}_{17}[\text{PO}_2(\text{OH})_2]_x(\text{OH})_{(1-2x)}$   
 $(0 \leq x \leq 0.5)$   
 Monte delle Basse, Euganei Hills, Galzignano Terme, Padova, Veneto, Italy  
 F. Cámara\*, F. Nestola, A. Guastoni, F. Zorzi, L. Bindi and D. Pedron  
 \*E-mail: fernando.camaraartigas@unito.it  
 New structure type related to pyrochlore Orthorhombic: *Fmmm*; structure determined  
 $a = 7.4116(3)$ ,  $b = 20.0632(8)$ ,  $c = 21.4402(8)$  Å  
 $3.66(60)$ ,  $3.16(30)$ ,  $3.05(100)$ ,  $2.979(25)$ ,  $2.835(50)$ ,  $1.854(25)$ ,  $1.822(25)$   
 Type material is deposited in the collections of the Museo di Mineralogia di Padova, Padova, Italy, registration number 9426  
 How to cite: Cámara, F., Nestola, F., Guastoni, A., Zorzi, F., Bindi, L. and Pedron, D. (2011) Tazzoliite, IMA 2011-018. CNMNC Newsletter No. 10, October 2011, page 2552; *Mineralogical Magazine*, **75**, 2549–2561.

#### IMA No. 2011-019

Davinciite  
 $\text{Na}_{12}\text{K}_3\text{Ca}_6\text{Fe}_3^{2+}\text{Zr}_3(\text{Si}_{26}\text{O}_{73}\text{OH})\text{Cl}_2$   
 Khibiny alkaline massif, Mount Rasvumchorr, Kola Peninsula, Russia  
 A.P. Khomyakov\*, G.N. Nechelyustov, R.K. Rastsvetaeva and K.A. Rozenberg  
 \*E-mail: noomineral@gmail.com  
 Eudialyte group  
 Trigonal:  $R3m$ ; structure determined  
 $a = 14.292(1)$ ,  $c = 30.027(5)$  Å  
 $6.415(54)$ ,  $5.720(36)$ ,  $4.309(66)$ ,  $3.207(63)$ ,  $3.162(43)$ ,  $2.981(100)$ ,  $2.860(96)$ ,  $2.595(37)$   
 Type material is deposited in the collections of the Fersman Mineralogical Museum, Russian Academy of Sciences, Moscow, Russia, catalogue number 3846  
 How to cite: Khomyakov, A.P., Nechelyustov, G.N., Rastsvetaeva, R.K. and Rozenberg, K.A. (2011) Davinciite, IMA 2011-019. CNMNC Newsletter No. 10, October 2011, page 2552; *Mineralogical Magazine*, **75**, 2549–2561.

## IMA No. 2011-020

Vladkrivovichevite



Kombat mine, Kombat, Grootfontein, Namibia  
Oleg I. Siidra\*, Rick W. Turner, Sergey V. Krivovichev, Mike S. Rumsey, Chris J. Stanley and John Spratt

\*E-mail: siidra@mail.ru

New structure type

Orthorhombic: *Pmnm*; structure determined

$a = 12.759(1)$ ,  $b = 27.169(4)$ ,  $c = 11.515(1)$  Å  
3.707(49), 2.860(100), 2.733(84), 2.075(32),  
1.677(20), 1.648(23), 1.601(32), 1.595(28)

Type material is deposited in the collections of the Natural History Museum in London, catalogue number BM2010, 101

How to cite: Siidra, O.I., Turner, R.W., Krivovichev, S.V., Rumsey, M.S., Stanley, C.J. and Spratt, J. (2011) Vladkrivovichevite, IMA 2011-020. CNMNC Newsletter No. 10, October 2011, page 2553; *Mineralogical Magazine*, **75**, 2549–2561.

## IMA No. 2011-021

Lileyite



Löhley, Üdersdorf, Eifel Mountains, Rhineland-Palatinate, Germany

Nikita V. Chukanov\*, Ramiza K. Rastsvetaeva, Igor V. Pekov, Sergey M. Aksenov, Aleksandr E. Zadov, Günter Bläß, Willi Schüller and Bernd Ternes

\*E-mail: chukanov@icp.ac.ru

Lamprophyllite group

Monoclinic: *C2/m*; structure determined

$a = 19.905(1)$ ,  $b = 7.0976(3)$ ,  $c = 5.4051(3)$  Å,  $\beta = 96.349(5)^\circ$

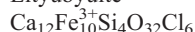
3.749(45), 3.464(76), 3.045(37), 2.884(36),  
2.792(100), 2.672(54), 2.624(43), 2.140(55)

Type material is deposited in the collections of the Fersman Mineralogical Museum of the Russian Academy of Sciences, Moscow, Russia, registration number 4106/1

How to cite: Chukanov, N.V., Rastsvetaeva, R.K., Pekov, I.V., Aksenov, S.M., Zadov, A.E., Bläß, G., Schüller, W. and Ternes, B. (2011) Lileyite, IMA 2011-021. CNMNC Newsletter No. 10, October 2011, page 2553; *Mineralogical Magazine*, **75**, 2549–2561.

## IMA No. 2011-022

Eltyubyuite



Upper Chegem volcanic caldera, Kabardino-Balkaria, North Caucasus, Russia (43°17'N 43°6'E)

E.V. Galuskin\*, R. Bailau, I.O. Galuskina, A.K. Prusik, V.M. Gazeev, A.E. Zadov, N.N. Pertsev, L. Ježak, A.G. Gurbanov and L. Dubrovinsky

\*E-mail: evgeny.galuskin@us.edu.pl

Related to wadalite

Cubic:  $I\bar{4}3d$  $a = 12.20(3)$  Å

4.981(30), 3.261(13), 3.050(49), 2.728(100),  
2.490(62), 2.227(13), 1.692(28), 1.630(40)

Type material is deposited in the collections of the Fersman Mineralogical Museum of the Russian Academy of Sciences, Moscow, catalogue numbers 4027/1 and 4027/2

How to cite: Galuskin, E.V., Bailau, R., Galuskina, I.O., Prusik, A.K., Gazeev, V.M., Zadov, A.E., Pertsev, N.N., Ježak, L., Gurbanov, A.G. and Dubrovinsky, L. (2011) Eltyubyuite, IMA 2011-022. CNMNC Newsletter No. 10, October 2011, page 2553; *Mineralogical Magazine*, **75**, 2549–2561.

## IMA No. 2011-023

Ehimeite



Mount Higashi-Akaishiyama, Besshiyama, Niihama City, Ehime Prefecture, Japan (33°52'30"N 133°22'30"E)

Daisuke Nishio-Hamane\*, Masayuki Ohnishi, Tetsuo Minakawa, Junichi Yamaura, Shohei Saito and Ryo Kadota

\*E-mail: hamane@issp.u-tokyo.ac.jp

Amphibole group

Monoclinic: *C2/m*; structure determined

$a = 9.9176(1)$ ,  $b = 18.0057(2)$ ,  $c = 5.2865(1)$  Å,  
 $\beta = 105.395(1)^\circ$

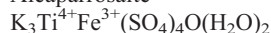
3.369(58), 2.932(43), 2.697(81), 2.585(50),  
2.546(100), 2.346(42), 2.156(35), 1.514(55)

Type material is deposited in the collections of the National Museum of Nature and Science, Tokyo, Japan, specimen number NSM M-41160

How to cite: Nishio-Hamane, D., Ohnishi, M., Minakawa, T., Yamaura, J., Saito, S. and Kadota, R. (2011) Ehimeite, IMA 2011-023. CNMNC Newsletter No. 10, October 2011, page 2553; *Mineralogical Magazine*, **75**, 2549–2561.

## IMA No. 2011-024

Alcaparrosaite



Alcaparrosa mine, Cerro Alcaparrosa,

Antofagasta, Chile (approximately 22°39'S  
69°10'W)

Anthony R. Kampf\*, Stuart J. Mills, Robert M.  
Housley and Maurizio Dini

\*E-mail: akampf@nhm.org

New structure type

Monoclinic:  $C2/c$ ; structure determined

$a = 7.5594(1)$ ,  $b = 16.7923(3)$ ,  $c = 12.1783(9)$  Å,  
 $\beta = 94.076(7)^\circ$

6.907(41), 3.628(34), 3.320(32), 3.096(100),  
3.000(40), 2.704(38), 1.928(30), 1.841(31)

Type material is deposited in the collections of  
the Natural History Museum of Los Angeles  
County, Los Angeles, California, USA, cata-  
logue numbers 63519 63520 and 63521

How to cite: Kampf, A.R., Mills, S.J., Housley,  
R.M. and Dini, M. (2011) Alcaparrosaite, IMA  
2011-024. CNMNC Newsletter No. 10, October  
2011, page 2553; *Mineralogical Magazine*, **75**,  
2549–2561.

#### IMA No. 2011-025

Ferrotaaffeite-2 $N'2S$

Be(Fe,Mg,Zn)<sub>3</sub>Al<sub>8</sub>O<sub>16</sub>

Xianghualing ore field, Linwu County, Hunan  
Province, China (112°34'E 25°28'N)

Zhuming Yang\*, Kuishou Ding, Jeffrey de  
Fourestier, Qian Mao and He Li

\*E-mail: yangzhm@mail.igcas.ac.cn

Taaffeite group

Hexagonal:  $P6_3mc$

$a = 5.706(8)$ ,  $c = 18.352(3)$  Å  
2.86(80), 2.60(90), 2.43(100), 2.05(70),  
1.595(70), 1.473(80), 1.425(90)

Type material is deposited in the collections of  
the Museum of the Institute of Geology and  
Geophysics, Chinese Academy of Sciences,  
Beijing, registration number KDX017

How to cite: Zhuming, Y., Kuishou, D., de  
Fourestier, J., Qian, M. and He, L. (2011)  
Ferrotaaffeite-2 $N'2S$ , IMA 2011-025. CNMNC  
Newsletter No. 10, October 2011, page 2554;  
*Mineralogical Magazine*, **75**, 2549–2561.

#### IMA No. 2011-026

Hydroxycalcipyrochlore

(Ca,Na,U, $\square$ )<sub>2</sub>(Nb,Ti)<sub>2</sub>O<sub>6</sub>(OH)

Maoniuping rare earth deposit, Mianning  
County, Sichuan Province, China

Yang Guangming, Li Guowu\*, Xiong Ming,  
Pan Baoming and Yan Chenjie

\*E-mail: liguowu@126.com

Pyrochlore group

Cubic:  $Fd3m$ ; structure determined

$a = 10.381(4)$  Å

2.966(100), 2.569(18), 1.814(34), 1.546(21),  
1.480(5), 1.282(5), 1.178(5), 1.148(4)

Type material is deposited in the collections of  
the China University of Geosciences, Beijing,  
China, catalogue number M595-22

How to cite: Yang, G., Li, G., Xiong, M., Pan,  
B. and Yan, C. (2011) Hydroxycalcipyro-  
chlore, IMA 2011-026. CNMNC Newsletter  
No. 10, October 2011, page 2554;  
*Mineralogical Magazine*, **75**, 2549–2561.

#### IMA No. 2011-027

Hereroite

[Pb<sub>32</sub>(O, $\square$ )<sub>21</sub>](AsO<sub>4</sub>)<sub>2</sub>[(Si,As,V,Mo]O<sub>4</sub>)<sub>2</sub>Cl<sub>10</sub>

Kombat mine, Kombat, Grootfontein, Namibia  
Rick W. Turner\*, Oleg I. Siidra, Mike S.  
Rumsey, Sergey V. Krivovichev, Chris J.  
Stanley and John Spratt

\*E-mail: rturner@imbuia-holdings.com

New structure type

Monoclinic:  $C2/c$ ; structure determined

$a = 23.139(4)$ ,  $b = 22.684(4)$ ,  $c = 12.389(2)$  Å,  
 $\beta = 102.090(3)^\circ$

3.901(21), 3.516(23), 2.982(100), 2.837(47),  
1.986(24), 1.758(14), 1.641(24), 1.598(12)

Type material is deposited in the collections of  
the Natural History Museum in London,  
catalogue number BM2010,101

How to cite: Turner, R.W., Siidra, O.I., Rumsey,  
M.S., Krivovichev, S.V., Stanley, C.J. and Spratt,  
J. (2011) Hereroite, IMA 2011-027. CNMNC  
Newsletter No. 10, October 2011, page 2554;  
*Mineralogical Magazine*, **75**, 2549–2561.

#### IMA No. 2011-028

Bassoite

SrV<sub>3</sub>O<sub>7</sub>·4H<sub>2</sub>O

Molinello mine, Val Graveglia, eastern Liguria,  
northern Apennines, Italy

Luca Bindi, Cristina Carbone\*, Roberto Cabella  
and Gabriella Lucchetti

\*E-mail: carbone@diptervis.unige.it

New structure type

Monoclinic:  $P2_1/m$ ; structure determined

$a = 5.313(3)$ ,  $b = 10.495(3)$ ,  $c = 8.568(4)$  Å,  
 $\beta = 91.14(5)^\circ$

8.566(100), 6.636(14), 4.475(26), 3.440(14),  
3.405(17), 2.834(15), 2.656(15), 1.867(16)

Type material is deposited in the collections of  
the Dipartimento per lo Studio del Territorio e  
delle sue Risorse, Università di Genova, Italy,

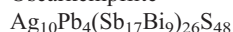


catalogue number M0480

How to cite: Bindi, L., Carbone, C., Cabella, R. and Lucchetti, G. (2011) Bassoite, IMA 2011-028. CNMNC Newsletter No. 10, October 2011, page 2554; *Mineralogical Magazine*, **75**, 2549–2561.

**IMA No. 2011-029**

Oscarkempffite



264 level, Colorado vein, Animas mine, Chocaya Province, Department of Potosi, Sur Chichas, Bolivia

Dan Topa\*, Emil Makovicky, Werner H. Paar, Chris J. Stanley and Andy C. Roberts

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

Lillianite homologous  $N = 4$

Orthorhombic: *Pnca*; structure determined

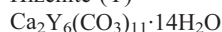
$a = 13.199(2)$ ,  $b = 19.332(3)$ ,  $c = 8.294(1)$  Å  
3.354(100), 2.988(40), 2.889(80), 2.263(40), 2.066(60), 1.766(50)

Type material is deposited in the collections of the Department of Materials Engineering and Physics, University of Salzburg, Salzburg, Austria, specimen number 15000, and the Natural History Museum, London, United Kingdom, specimen number BM 20, 3

How to cite: Topa, D., Makovicky, E., Paar, W.H., Stanley, C.J. and Roberts, A.C. (2011) Oscarkempffite, IMA 2011-029. CNMNC Newsletter No. 10, October 2011, page 2555; *Mineralogical Magazine*, **75**, 2549–2561.

**IMA No. 2011-030**

Hizenite-(Y)



Higashimatsuura basalt, Mitsukoshi, Karatsu, Saga Prefecture, Japan (33°24'N 129°51'E)

Yasuhiro Takai\* and Seiichiro Uehara

\*E-mail: takai@kyudai.jp

Tengerite group

Orthorhombic: space group unknown

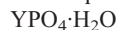
$a = 6.295(1)$ ,  $b = 9.089(2)$ ,  $c = 63.49(1)$  Å  
15.57(20), 10.63(100), 6.384(77), 3.962(51), 3.821(27), 2.946(9), 2.445(16), 2.060(23)

Type material is deposited in the collections of the Kitakyushu Museum of Natural History and Human History, Kitakyushu, Japan, registration number KMNHM000001

How to cite: Takai, Y. and Uehara, S. (2011) Hizenite-(Y), IMA 2011-030. CNMNC Newsletter No. 10, October 2011, page 2555; *Mineralogical Magazine*, **75**, 2549–2561.

**IMA No. 2011-031**

Rhabdophane-(Y)



Genkai, Higashi-Matsuura, Saga Prefecture, Japan (33°28'N 129°54'E)

Yasuhiro Takai\* and Seiichiro Uehara

\*E-mail: takai@kyudai.jp

Rhabdophane group

Hexagonal: *P6<sub>2</sub>22*

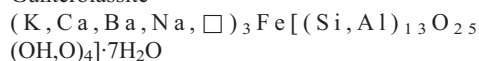
$a = 6.959(2)$ ,  $c = 6.384(2)$  Å  
6.026(76), 4.385(47), 3.480(44), 3.013(77), 2.821(100), 2.144(19), 2.127(28), 1.854(26)

Type material is deposited in the collections of the Kitakyushu Museum of Natural History and Human History, Kitakyushu, Japan, registered number KMNHM000002

How to cite: Takai, Y. and Uehara, S. (2011) Rhabdophane-(Y), IMA 2011-031. CNMNC Newsletter No. 10, October 2011, page 2555; *Mineralogical Magazine*, **75**, 2549–2561.

**IMA No. 2011-032**

Günterblässite



Mount Rother Kopf, Roth, Eifel Mountains, Rheinland-Pfalz, Germany

Nikita V. Chukanov\*, Ramiza K. Rastsvetaeva, Sergey M. Aksenov, Igor V. Pekov, Natalia V. Zubkova, Sergey N. Britvin, Dmitriy I. Belakovsky, Willi Schüller and Bernd Ternes

\*E-mail: chukanov@icp.ac.ru

New structure type

Orthorhombic: *Pnm2<sub>1</sub>*; structure determined

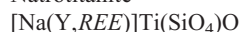
$a = 6.528(1)$ ,  $b = 6.970(1)$ ,  $c = 37.216(5)$  Å  
6.523(100), 6.263(67), 3.244(49), 3.062(91), 2.996(66), 2.955(63), 2.853(51), 2.763(60)

Type material is deposited in the collections of the Fersman Mineralogical Museum of the Russian Academy of Sciences, Moscow, Russia, registration number 4107/1

How to cite: Nikita V. Chukanov, N.V., Rastsvetaeva, R.K., Aksenov, S.M., Pekov, I.V., Zubkova, N.V., Britvin, S.N., Belakovsky, D.I., Schüller, W. and Ternes, B. (2011) Günterblässite, IMA 2011-032. CNMNC Newsletter No. 10, October 2011, page 2555; *Mineralogical Magazine*, **75**, 2549–2561.

**IMA No. 2011-033**

Natrotitanite



Verkhnee Espe deposit, Akjailyautas mountains, Eastern-Kazakhstan district, Kazakhstan (48°03'–48°10'N 81°26'–81°29'E)

A.V. Stepanov, G.K. Bekenova, V.L. Levin and F.C. Hawthorne\*

\*E-mail: frank\_hawthorne@umanitoba.ca

Titanite group

Monoclinic:  $C2/c$ ; structure determined

$a = 6.5691(2)$ ,  $b = 8.6869(3)$ ,  $c = 7.0924(2)$  Å,  $\beta = 114.1269(4)^\circ$

4.941(30), 3.248(80), 2.994(60), 2.597(100), 2.273(30), 2.067(20), 1.641(40), 1.498(30)

Type material is deposited in the collections of the Geological Scientific Museum of the Satpaev Institute of Geological Sciences, registration number 3010

How to cite: Stepanov, A.V., Bekenova, G.K., Levin, V.L. and Hawthorne, F.C. (2011) Natrotitanite, IMA 2011-033. CNMNC Newsletter No. 10, October 2011, page 2555; *Mineralogical Magazine*, **75**, 2549–2561.

#### IMA No. 2011-034

Betpakdalite-CaMg

$[\text{Ca}_2(\text{H}_2\text{O})_{17}\text{Mg}(\text{H}_2\text{O})_6][\text{Mo}_8\text{As}_2\text{Fe}_3^{3+}\text{O}_{36}(\text{OH})]$

Tsumeb mine, Tsumeb, Namibia

Anthony R. Kampf\* and Stuart J. Mills

\*E-mail: akampf@nhm.org

Betpakdalite group

Monoclinic:  $C2/m$ ; structure determined

$a = 19.5336(7)$ ,  $b = 11.0637(4)$ ,  $c = 15.2559(11)$  Å,  $\beta = 131.528(9)^\circ$   
11.568(25), 8.971(100), 7.341(34), 3.656(33), 3.143(26), 2.965(44), 2.817(35), 2.662(31)

Type material is deposited in the collections of the Natural History Museum of Los Angeles County, Los Angeles, California, USA, catalogue numbers 63327 and 63328

How to cite: Kampf, A.R. and Mills, S.J. (2011) Betpakdalite-CaMg, IMA 2011-034. CNMNC Newsletter No. 10, October 2011, page 2556; *Mineralogical Magazine*, **75**, 2549–2561.

#### IMA No. 2011-035

Ferrikaersutite

$\text{NaCa}_2(\text{Mg}_3\text{Fe}^{3+}\text{Ti})(\text{Al}_2\text{Si}_6\text{O}_{22})\text{O}_2$

Deeti volcanic cone, Gregory rift, Tanzania

Anatoly N. Zaitsev\*, Evgeniya Y. Avdontseva, Sergey N. Britvin, Attila Demény, Zoltán Homonnay, Teresa Jeffries, Jörg Keller, Vladimir G. Krivovichev, Gregor Markl, Natalia V. Platonova, Oleg I. Siidra and John Spratt

\*E-mail: burbankite@gmail.com

Amphibole group

Monoclinic:  $C2/m$ ; structure determined

$a = 9.8837(3)$ ,  $b = 18.0662(6)$ ,  $c = 5.3107(2)$  Å,  $\beta = 105.278(1)^\circ$

3.383(62), 3.281(30), 2.708(97), 2.596(75), 2.555(100), 2.162(36), 1.585(39), 1.521(48)

Type material is deposited in the collections of the Mineralogical Museum, Department of Mineralogy, St Petersburg State University, St Petersburg, Russia, catalogue number 1/19465

How to cite: Zaitsev, A.N., Avdontseva, E.Y., Britvin, S.N., Demény, A., Homonnay, Z., Jeffries, T., Keller, J., Krivovichev, V.G., Markl, G., Platonova, N.V., Siidra, O.I. and Spratt, J. (2011) Ferrikaersutite, IMA 2011-035. CNMNC Newsletter No. 10, October 2011, page 2556; *Mineralogical Magazine*, **75**, 2549–2561.

#### IMA No. 2011-036

Jakobssonite

$\text{CaAlF}_5$

Eldfell volcano, Heimaey island, Vestmannaeyjar archipelago, Iceland; also from Hekla

Tonči Balić-Žunić\*, Anna Garavelli, Donatella Mitolo, Pasquale Acquafredda and Erik Leonardsen

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

Known synthetic compound

Monoclinic:  $C2/c$ ; structure determined

$a = 8.601(1)$ ,  $b = 6.2903(6)$ ,  $c = 7.2190(7)$  Å,  $\beta = 114.61(1)^\circ$

4.91(18), 3.92(76), 3.15(68), 3.13(100), 2.270(22), 1.957(21), 1.814(20), 1.805(22)

Type material is deposited in the collections of the Icelandic Institute of Natural History, Reykjavík, Iceland, sample number NI 12256 (Eldfell). A cotype sample has the number NI 15511 (Hekla)

How to cite: Balić-Žunić, T., Garavelli, A., Mitolo, D., Acquafredda, P. and Leonardsen, E. (2011) Jakobssonite, IMA 2011-036. CNMNC Newsletter No. 10, October 2011, page 2556; *Mineralogical Magazine*, **75**, 2549–2561.

#### IMA No. 2011-037

Hielscherite

$\text{Ca}_3\text{Si}(\text{SO}_4)(\text{SO}_3)(\text{OH})_6 \cdot 11\text{H}_2\text{O}$

Graulay, Hillesheim, Eifel Mountains, Rheinland-Pfalz, Germany

Igor V. Pekov\*, Nikita V. Chukanov, Yuriy K. Kabalov, Sergey N. Britvin, Jörg Göttlicher,



Vasily O. Yapaskurt, Aleksandr E. Zadov, Sergey V. Krivovichev, Willi Schüller and Bernd Ternes

\*E-mail: igorpekov@mail.ru

Ettringite group

Hexagonal:  $P6_3$

$a = 11.1178(2)$ ,  $c = 10.5381(2)$  Å

9.62(100), 5.551(50), 4.616(37), 3.823(64),

3.436(25), 2.742(38), 2.528(37), 2.180(35)

Type material is deposited in the collections of the Fersman Mineralogical Museum of the Russian Academy of Sciences, Moscow, Russia, registration number 4093/1

How to cite: Pekov, I.V., Chukanov, N.V., Kabalov, Y.K., Britvin, S.N., Göttlicher, J., Yapaskurt, V.O., Zadov, A.E., Krivovichev, S.V., Schüller, W. and Ternes, B. (2011) Hielscherite, IMA 2011-037. CNMNC Newsletter No. 10, October 2011, page 2556; *Mineralogical Magazine*, **75**, 2549–2561.

#### IMA No. 2011-038

Kottenheimite

$\text{Ca}_3\text{Si}(\text{SO}_4)_2(\text{OH})_6 \cdot 12\text{H}_2\text{O}$

Ettringer Bellerberg, Mayen, Laacher See region, Eastern Eifel area, Rheinland-Pfalz, Germany

Nikita V. Chukanov\*, Sergey N. Britvin, Aleksandr E. Zadov, and Konstantin V. Van

\*E-mail: chukanov@icp.ac.ru

Ettringite group

Hexagonal:  $P6_3/m$

$a = 11.1548(3)$ ,  $c = 10.5702(3)$  Å

9.72(100), 5.590(69), 4.645(26), 3.840(54),

3.455(21), 2.751(34), 2.536(27), 2.185(30)

Type material is deposited in the collections of the Fersman Mineralogical Museum of the Russian Academy of Sciences, Moscow, Russia, registration number 4102/1

How to cite: Chukanov, N.V., Britvin, S.N., Zadov, A.E. and Van, K.V. (2011) Kottenheimite, IMA 2011-038. CNMNC Newsletter No. 10, October 2011, page 2557; *Mineralogical Magazine*, **75**, 2549–2561.

#### IMA No. 2011-039

Mendozavilite-NaCu

$[\text{Na}_2(\text{H}_2\text{O})_{15}\text{Cu}(\text{H}_2\text{O})_6][\text{Mo}_8\text{P}_2\text{Fe}_3^{3+}\text{O}_{34}(\text{OH})_3]$

Lomas Bayas mine, 93 km ENE of Antofagasta, Antofagasta Province, Chile (23°25'40''S 69°30'41''W)

Anthony R. Kampf\*, Stuart J. Mills, Joseph J. Pluth, Ian M. Steele and Robert A. Jenkins

\*E-mail: akampf@nhm.org

Betpakdalite group

Monoclinic:  $C2/m$ ; structure determined

$a = 18.9984(16)$ ,  $b = 10.9296(7)$ ,  $c = 15.0818(12)$  Å,  $\beta = 129.906(2)^\circ$

8.841(100), 7.330(37), 3.676(17), 3.132(19),

3.007(25), 2.932(21), 2.743(20), 1.769(22)

Type material is deposited in the collections of the Natural History Museum of Los Angeles County, catalogue numbers 60483, 60484, 60485 and 60486

How to cite: Kampf, A.R., Mills, S.J., Pluth, J.J., Steele, I.M. and Jenkins, R.A. (2011) Mendozavilite-NaCu, IMA 2011-039. CNMNC Newsletter No. 10, October 2011, page 2557; *Mineralogical Magazine*, **75**, 2549–2561.

#### IMA No. 2011-040

Krásnoite

$\text{Ca}_3\text{Al}_{7.7}\text{Si}_3\text{P}_4\text{O}_{22.9}(\text{OH})_{13.3}\text{F}_2 \cdot 8\text{H}_2\text{O}$

Huber open pit, Krásno ore district, Horní Slavkov, Slavkovský Les Mountains, Czech Republic (50°07'22''N 12°48'2''E), and the Silver Coin mine, Iron Point district, Humboldt County, Nevada, USA (40°55'44''N 117°19'26''W)

Stuart J. Mills\*, Jiří Sejkora, Anthony R. Kampf, Ian E. Grey, Timothy J. Bastow, Neil A. Ball, Paul M. Adams, Matí Raudsepp and Mark A. Cooper

\*E-mail: smills@museum.vic.gov.au

F-analogue of perhamite

Trigonal:  $P\bar{3}m1$

$a = 6.9956(4)$ ,  $c = 20.200(2)$  Å

20.186(97), 6.736(100), 5.800(67), 3.496(60),

2.873(87), 2.763(73), 2.104(75), 1.748(64)

Type material is deposited in the collections of the Mineral Sciences Department, Natural History Museum of Los Angeles County, Los Angeles, California, USA, catalogue numbers 62372 and 62373 (Silver Coin), and the Department of Mineralogy and Petrology, National Museum Prague, Praha, Czech Republic, catalogue number PIP 2/2011 (Krásno)

How to cite: Mills, S.J., Sejkora, J., Kampf, A.R., Grey, I.E., Bastow, T.J., Ball, N.A., Adams, P.M., Raudsepp, M. and Cooper, M.A. (2011) Krásnoite, IMA 2011-040. CNMNC Newsletter No. 10, October 2011, page 2557; *Mineralogical Magazine*, **75**, 2549–2561.

## IMA No. 2011-041

Steklite

KAl(SO<sub>4</sub>)<sub>2</sub>

Yadovitaya fumarole, Tolbachik volcano, Kamchatka Peninsula, Kamchatka Oblast', Far-Eastern Region, Russia (55°41'N 160°14'E)

Mikhail N. Murashko, Igor V. Pekov\*, Sergey V. Krivovichev, Anastasiya P. Chernyatieva, Vasily O. Yapaskurt and Aleksandr E. Zadov

\*E-mail: igorpekov@mail.ru

K-analogue of godovikovite

Trigonal: *P*321; structure determined $a = 4.7281(3)$ ,  $c = 7.9936(5)$  Å

8.02(34), 4.085(11), 3.649(100), 2.861(51),

2.660(19), 2.364(25), 2.267(14), 1.822(12)

Type material is deposited in the collections of the Fersman Mineralogical Museum of the Russian Academy of Sciences, Moscow, registration number 4109/1

How to cite: Murashko, M.N., Pekov, I.V., Krivovichev, S.V., Chernyatieva, A.P., Yapaskurt, V.O. and Zadov, A.E. (2011) Steklite, IMA 2011-041. CNMNC Newsletter No. 10, October 2011, page 2558; *Mineralogical Magazine*, **75**, 2549–2561.

## IMA No. 2010-085a

Shimazakiite

Ca<sub>2</sub>B<sub>2-x</sub>O<sub>5-3x</sub>(OH)<sub>3x</sub> ( $x = 0-0.06$ )

Fuka, Okayama Prefecture, Japan (43°46'N 133°26'E)

Isao Kusachi\*, Shoichi Kobayashi, Yasushi Takechi, Yoshihiro Nakamuta, Toshiro Nagase, Kazumi Yokoyama, Ritsuro Miyawaki, Masako Shigeoka and Satoshi Matsubara

\*E-mail: michikusa509@image.ocn.ne.jp

New structure type

Monoclinic: *P*2, *P*2/*m*, *P**m*, *P*2<sub>1</sub> or *P*2<sub>1</sub>/*m* $a = 3.532(3)$ ,  $b = 6.354(2)$ ,  $c = 19.275(9)$  Å,  $\beta = 91.30(8)^\circ$ 

6.03(27), 3.84(30), 3.02(84), 2.92(100),

2.84(27), 2.81(56), 2.76(32), 1.880(32)

Type material is deposited in the collections of the National Museum of Nature and Science, Tokyo, Japan, registered number NSM-M41025

How to cite: Kusachi, I., Kobayashi, S., Takechi, Y., Nakamuta, Y., Nagase, T., Yokoyama, K., Miyawaki, R., Shigeoka M. and Matsubara, S. (2011) Shimazakiite, IMA 2010-085a. CNMNC Newsletter No. 10, October 2011, page 2558; *Mineralogical Magazine*, **75**, 2549–2561.

## NEW MINERAL PROPOSALS APPROVED IN JULY 2011

## IMA No. 2011-042

Adolfpateraitite

K(UO<sub>2</sub>)(SO<sub>4</sub>)(OH)(H<sub>2</sub>O)

Geschieber vein, 5th level of the Svornost (Einigkeit) shaft, Jáchymov (St Joachimsthal) ore district, western Bohemia, Czech Republic

Jakub Plášil\*, Karla Fejfarová, František Veselovský, Jan Hloušek, Radek Škoda, Milan Novák, Jiří Čejka, Jiří Sejkora and Petr Ondruš

\*E-mail: jakub.plasil@krist.unibe.ch

New structure type

Monoclinic: *P*2<sub>1</sub>/*c*; structure determined $a = 8.0462(1)$ ,  $b = 7.9256(1)$ ,  $c = 11.3206(2)$  Å,  $\beta = 107.726(2)^\circ$ 

7.658(76), 6.381(91), 5.386(100), 5.218(85),

3.718(46), 3.700(37), 3.489(27), 2.747(17)

Type material is deposited in the collections of the Department of Mineralogy and Petrology of the National Museum in Prague, Prague, Czech Republic, catalogue number: PIP 3/2011

How to cite: Plášil, J., Fejfarová, K., Veselovský, F., Hloušek, J., Škoda, R., Novák, M., Čejka, J., Sejkora, J. and Ondruš, P. (2011) Adolfpateraitite, IMA 2011-042. CNMNC Newsletter No. 10, October 2011, page 2558; *Mineralogical Magazine*, **75**, 2549–2561.

## IMA No. 2011-043

Miyahisaite

(Sr,Ca)<sub>2</sub>Ba<sub>3</sub>(PO<sub>4</sub>)<sub>3</sub>F

Shitaharai mine, Saiki City, Ohita Prefecture, Kyushu, Japan

Daisuke Nishio-Hamane\*, Yukikazu Ogoshi and Tetsuo Minakawa

\*E-mail: hamane@issp.u-tokyo.ac.jp

Apatite group

Hexagonal: *P*6<sub>3</sub>/*m* $a = 9.921(2)$ ,  $c = 7.469(3)$  Å

3.427(16), 3.248(22), 2.981(100), 2.865(21),

1.976(23), 1.874(16), 1.870(15), 1.864(17)

Type material is deposited in the collections of the National Museum of Nature and Science, Tokyo, Japan, specimen number NSM M-41299

How to cite: Nishio-Hamane, D., Ogoshi, Y. and Minakawa, T. (2011) Miyahisaite, IMA 2011-043. CNMNC Newsletter No. 10, October 2011, page 2558; *Mineralogical Magazine*, **75**, 2549–2561.

## IMA No. 2011-044

Krashennikovite  
 $\text{KNa}_2\text{CaMg}(\text{SO}_4)_3\text{F}$

Second scoria cone, Tolbachik volcano, Kamchatka peninsula, Kamchatka Oblast', Far-Eastern Region, Russia (55°41'N 160°14'E)

Igor V. Pekov\*, Michael E. Zelenski, Natalia V. Zubkova, Dmitry A. Ksenofontov, Yuriy K. Kabalov, Nikita V. Chukanov, Vasilii O. Yapaskurt, Aleksandr E. Zadov and Dmitry Y. Pushcharovsky

\*E-mail: igorpekov@mail.ru

New structure type

Hexagonal:  $P6_3/mcm$ ; structure determined

$a = 16.630(2)$ ,  $c = 6.882(1)$  Å

4.284(23), 3.610(23), 3.566(17), 3.459(41),

3.153(100), 3.117(21), 2.660(39), 2.085(19)

Type material is deposited in the collections of the Fersman Mineralogical Museum of the Russian Academy of Sciences, Moscow, Russia, registration number 4112/1

How to cite: Pekov, I.V., Zelenski, M.E., Zubkova, N.V., Ksenofontov, D.A., Kabalov, Y.K., Chukanov, N.V., Yapaskurt, V.O., Zadov, A.E. and Pushcharovsky, D.Y. (2011) Krashennikovite, IMA 2011-044. CNMNC Newsletter No. 10, October 2011, page 2559; *Mineralogical Magazine*, **75**, 2549–2561.

## IMA No. 2011-045

Kasatkinite

$\text{Ba}_2\text{Ca}_8\text{B}_5\text{Si}_8\text{O}_{32}(\text{OH})_3 \cdot 6\text{H}_2\text{O}$

Bazhenovskoe chrysotile asbestos deposit, Asbest, Central Urals, Russia

Igor V. Pekov\*, Nikita V. Chukanov, Yaroslav E. Filinchuk, Aleksandr E. Zadov, Natalia N. Kononkova, Sergey G. Epanchintsev, Peter Kaden, Andrea Kutzer and Jörg Göttlicher

\*E-mail: igorpekov@mail.ru

New structure type

Monoclinic:  $P2_1/c$ ,  $P2/c$  or  $Pc$

$a = 5.74(2)$ ,  $b = 7.234(8)$ ,  $c = 20.81(2)$  Å,  $\beta = 90.70(12)^\circ$

5.89(24), 3.48(23), 3.36(24), 3.009(100), 2.925(65), 2.633(33), 2.116(29)

Type material is deposited in the collections of the Fersman Mineralogical Museum of the Russian Academy of Sciences, Moscow, Russia, registration number 4129/1

How to cite: Pekov, I.V., Chukanov, N.V., Filinchuk, Y.E., Zadov, A.E., Kononkova, N.N., Epanchintsev, S.G., Kaden, P., Kutzer, A. and Göttlicher, J. (2011) Kasatkinite, IMA 2011-

045. CNMNC Newsletter No. 10, October 2011, page 2559; *Mineralogical Magazine*, **75**, 2549–2561.

## IMA No. 2011-046

Obradovicite-NaNa

$[\text{Na}_2(\text{H}_2\text{O})_{16}\text{Na}(\text{H}_2\text{O})_6][\text{Mo}_8\text{As}_2\text{Fe}_3^{3+}\text{O}_{33}(\text{OH})_4]$   
 Chuquicamata mine, Antofagasta, Chile

Anthony R. Kampf\*, Stuart J. Mills, William D. Birch and Maurizio Dini

\*E-mail: akampf@nhm.org

Betpakdalite group

Orthorhombic:  $Pnmb$ ; structure determined

$a = 14.8866(11)$ ,  $b = 11.0880(2)$ ,

$c = 15.0560(3)$  Å

10.641(43), 8.954(100), 7.487(21), 3.716(15),

2.987(18), 2.906(29), 2.602(16)

Type material is deposited in the collections of the Natural History Museum of Los Angeles County, catalogue numbers 63313 and 63314

How to cite: Kampf, A.R., Mills, S.J., Birch, W.D. and Dini, M. (2011) Obradovicite-NaNa, IMA 2011-046. CNMNC Newsletter No. 10, October 2011, page 2559; *Mineralogical Magazine*, **75**, 2549–2561.

## IMA No. 2011-047

Tsilaisite

$\text{NaMn}_3^+\text{Al}_6(\text{Si}_6\text{O}_{18})(\text{BO}_3)_3(\text{OH})_3\text{OH}$

Grotta d'Oggi, San Pietro in Campo, Elba, Italy  
 Ferdinando Bosi\*, Henrik Skogby, Eugenio Scandale and Giovanna Agros

\*E-mail: ferdinando.bosi@uniroma1.it

Tourmaline supergroup

Trigonal:  $R3m$ ; structure determined

$a = 15.9461(5)$ ,  $c = 7.1380(3)$  Å

6.329(22), 4.205(41), 3.974(100), 3.452(71),

2.942(94), 2.570(79), 2.377(21), 2.034(49)

Type material is deposited in the collections of the Museo di Scienze della Terra, settore Mineralogico Pertografico "Carlo Lorenzo Garavelli", Campus Universitario, Bari, Italy, catalogue number 12/nm

How to cite: Bosi, F., Skogby, H., Scandale, E. and Agros, G. (2011) Tsilaisite, IMA 2011-047. CNMNC Newsletter No. 10, October 2011, page 2559; *Mineralogical Magazine*, **75**, 2549–2561.

## IMA No. 2011-048

Fassinaitite

$\text{Pb}_2(\text{CO}_3)(\text{S}_2\text{O}_3)$

Trentini mine, Mount Naro, Torrebelficino, Vicenza, Italy

Luca Bindi\*, Fabrizio Nestola, Alessandro Guastoni, Federico Zorzi and Lutz Nasdala

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

New structure type

Orthorhombic:  $Pnma$ ; structure determined

$a = 16.320(2)$ ,  $b = 8.7616(6)$ ,  $c = 4.5809(7)$  Å  
4.410(39), 4.381(59), 4.080(64), 3.504(75),  
3.108(100), 2.986(82), 2.952(49), 2.736(60)

Type material is deposited in the collections of the Museum of Mineralogy of the Department of Geosciences at the University of Padova, Padova, Italy, catalogue number MMP M10008  
How to cite: Bindi, L., Nestola, F., Guastoni, A., Zorzi, F. and Nasdala, L. (2011) Fassinaite, IMA 2011-048. CNMNC Newsletter No. 10, October 2011, page 2559; *Mineralogical Magazine*, **75**, 2549–2561.

#### IMA No. 2011-049

Ianbruceite

$Zn_2O[AsO_3(OH)](H_2O)_{3.53}$

Tsumeb mine, Otjikoto Region, Namibia

Mark A. Cooper, Yassir Abdu, Neil Ball, Malcolm Back, Frank C. Hawthorne\* and Kim Tait

\*E-mail: frank\_hawthorne@umanitoba.ca

New structure type

Monoclinic:  $P2_1/c$ ; structure determined

$a = 11.793(2)$ ,  $b = 9.1138(14)$ ,  $c = 6.8265(10)$  Å,  
 $\beta = 103.859(9)^\circ$

11.28(100), 3.755(9), 3.186(14), 3.120(12),  
2.947(16), 2.845(5), 2.819(8), 2.682(8)

Type material is deposited in the collections of the Department of Natural History, Royal Ontario Museum, Toronto, Ontario, Canada, catalogue number M53150

How to cite: Cooper, M.A., Abdu, Y., Ball, N., Back, M., Hawthorne, F.C. and Tait, K. (2011) Ianbruceite, IMA 2011-049. CNMNC Newsletter No. 10, October 2011, page 2560; *Mineralogical Magazine*, **75**, 2549–2561.

#### IMA No. 2011-050

Aklimaite

$Ca_4[Si_2O_5(OH)_2](OH)_4 \cdot 5H_2O$

Mount Lakargi, Kabardino-Balkaria, North Caucasus, Russia (43°17'N 43°6.42'E)

Aleksandr E. Zadov, Igor V. Pekov\*, Viktor M. Gazeev, Natalia V. Zubkova, Vasiliy O. Yapaskurt, Nikita V. Chukanov, Pavel M. Kartashov, Evgeny V. Galuskin, Irina O. Galuskina, Nikolay N. Pertsev, Anatoly G. Gurbanov and Dmitry Y. Pushcharovsky

\*E-mail: igorpekov@mail.ru

New structure type

Monoclinic:  $C2/m$ ; structure determined

$a = 16.907(5)$ ,  $b = 3.6528(8)$ ,  $c = 13.068(4)$  Å,  
 $\beta = 117.25(4)^\circ$

11.64(100), 8.30(10), 4.349(9), 3.073(20),  
2.948(32), 2.901(11), 2.576(10), 2.320(12)

Type material is deposited in the collections of the Fersman Mineralogical Museum of the Russian Academy of Sciences, Moscow, registration number 4113/1

How to cite: Zadov, A.E., Pekov\*, I.V., Gazeev, V.M., Zubkova, N.V., Yapaskurt, V.O., Chukanov, N.V., Kartashov, P.M., Galuskin, E.V., Galuskina, I.O., Pertsev, N.N., Gurbanov, A.G. and Pushcharovsky, D.Y. (2011) Aklimaite, IMA 2011-050. CNMNC Newsletter No. 10, October 2011, page 2560; *Mineralogical Magazine*, **75**, 2549–2561.

### NEW MINERAL PROPOSALS APPROVED IN AUGUST 2011

#### IMA No. 2011-051

Reynoldsite

$Pb_2Mn_4^{2+}O_5(CrO_4)$

Blue Bell claims, San Bernardino County, California, USA (35°14'31"N 116°12'17"W), and the Red Lead mine, Dundas, Tasmania, Australia (41°53'22"S 145°25'51"E)

Anthony R. Kampf\*, Stuart J. Mills, Robert M. Housley, Ralph S. Bottrill and Uwe Kolitsch

\*E-mail: akampf@nhm.org

New structure type

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

$a = 5.0278(7)$ ,  $b = 7.5865(11)$ ,  
 $c = 10.2808(15)$  Å,  $\alpha = 91.968(12)$ ,  
 $\beta = 99.405(12)$ ,  $\gamma = 109.159(10)^\circ$

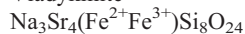
3.427(52), 3.254(85), 3.052(100), 2.923(40),  
2.502(47), 1.982(42), 1.769(36), 1.637(36)

Type material is deposited in the collections of the Natural History Museum of Los Angeles County, Los Angeles, California, USA, catalogue numbers 63559, 63560 and 63561 (Blue Bell claims) and 63562 (Red Lead mine)

How to cite: Kampf, A.R., Mills, S.J., Housley, R.M., Bottrill, R.S. and Kolitsch, U. (2011) Reynoldsite, IMA 2011-051. CNMNC Newsletter No. 10, October 2011, page 2560; *Mineralogical Magazine*, **75**, 2549–2561.

## IMA No. 2011-052

Vladykinite



Murun alkaline complex, Mount Maly Murun, southwestern Yakutia, eastern Siberia, Russia (58°22'48"N 119°03'44"E)

Anton R. Chakhmouradian\*, Mark A. Cooper, Neil Ball, Luca Medici, Yassir Abdu and Anton A. Antonov

\*E-mail: chakhmou@cc.umanitoba.ca

Structurally related to members of the nordite group

Monoclinic:  $P2_1/c$ ; structure determined

$a = 5.2138(1)$ ,  $b = 7.9143(2)$ ,  $c = 26.0888(7)$  Å,  
 $\beta = 90.3556(7)^\circ$

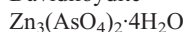
4.290(30), 3.612(58), 3.339(30), 3.146(37),  
2.957(100), 2.826(100), 2.604(28), 2.470(32)

Type material is deposited in the collections of the Robert B. Ferguson Museum of Mineralogy, University of Manitoba, Winnipeg, Manitoba, catalogue number M7853

How to cite: Chakhmouradian, A.R., Cooper, M.A., Ball, N., Medici, L., Abdu, Y. and Antonov, A.A. (2011) Vladykinite, IMA 2011-052. CNMNC Newsletter No. 10, October 2011, page 2561; *Mineralogical Magazine*, **75**, 2549–2561.

## IMA No. 2011-053

Davidlloydite



Tsumeb mine, Otjikoto Region, Namibia

Mark A. Cooper, Neil Ball, Yassir Abdu, Malcolm Back, Kim Tait and Frank C. Hawthorne\*

\*E-mail: frank\_hawthorne@umanitoba.ca

As analogue of parahopeite

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

$a = 5.9756(4)$ ,  $b = 7.6002(5)$ ,  $c = 5.4471(4)$  Å,  
 $\alpha = 84.2892(9)$ ,  $\beta = 90.4920(9)$ ,  $\gamma = 87.9958(9)^\circ$   
7.526(71), 5.409(37), 4.620(100), 3.635(30),  
3.253(40), 2.974(49), 2.810(37), 2.701(39)

Type material is deposited in the collections of the Department of Natural History, Royal Ontario Museum, Toronto, Ontario, Canada, catalogue number M56120

How to cite: Cooper, M.A., Ball, N., Abdu, Y., Back, M., Tait, K. and Hawthorne, F.C. (2011) Davidlloydite, IMA 2011-053. CNMNC Newsletter No. 10, October 2011, page 2561; *Mineralogical Magazine*, **75**, 2549–2561.

