

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

## NEWSLETTER 16

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### New minerals and nomenclature modifications approved in 2013

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The information given here is provided by the IMA Commission on New Minerals, Nomenclature and Classification for comparative purposes and as a service to mineralogists working on new species.

Each mineral is described in the following format:

**Mineral name, if the authors agree on its release prior to the full description appearing in press**

Chemical formula

Type locality

Full authorship of proposal

E-mail address of corresponding author

Relationship to other minerals

Crystal system, Space group; Structure determined, yes or no

Unit-cell parameters

Strongest lines in the X-ray powder diffraction pattern

Type specimen repository and specimen number

Citation details for the mineral prior to publication of full description

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

**It is still a requirement for the authors to publish a full description of the new mineral.**

NO OTHER INFORMATION WILL BE RELEASED BY THE COMMISSION

NEW MINERAL PROPOSALS APPROVED IN  
FEBRUARY 2013

## IMA No. 2012-084

Peterandresenite



A/S Granit quarry, Tvedalen, Larvik, Vestfold, Norway (59°2.353'N 9°51.413'E)

H. Friis\*, A.O. Larsen, A.R. Kampf, R.J. Evans, R.S. Selbekk and J. Kihle

\*E-mail: geofriis@yahoo.com

New structure type

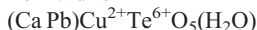
Monoclinic:  $C2/m$ ; structure determined $a = 15.3485(9)$ ,  $b = 9.4314(6)$ ,  $c = 11.3068(7)$  Å,  
 $\beta = 118.607(2)^\circ$ 9.898(82), 7.710(42), 7.469(39), 7.103(63),  
3.410(30), 3.301(20), 2.926(100), 2.029(30)

Type material is deposited in the collections of the Natural History Museum, University of Oslo, Oslo, Norway, catalogue numbers 43490 and 43492, and the Mineral Sciences Department, Natural History Museum of Los Angeles County, Los Angeles, California, USA, catalogue number 64008

How to cite: Friis, H., Larsen, A.O., Kampf, A.R., Evans, R.J., Selbekk, R.S. and Kihle, J. (2013) Peterandresenite, IMA 2012-084. CNMNC Newsletter No. 16, August 2013, page 2696; *Mineralogical Magazine*, 77, 2695–2709.

## IMA No. 2012-085

Eckhardite



Aga mine (35.27215°N 116.09487°W) and the Bird Nest drift (35.27677°N 116.09927°W), Otto Mountain, San Bernardino County, California, USA

Anthony R. Kampf\*, Stuart J. Mills, Robert M. Housley, George R. Rossman, Joseph Marty and Brent Thorne

\*E-mail: akampf@nhm.org

New structure type

Monoclinic:  $P2_1/n$ ; structure determined $a = 8.1606(8)$ ,  $b = 5.3076(6)$ ,  $c = 11.4412(15)$  Å,  
 $\beta = 101.549(7)^\circ$ 5.94(100), 3.287(80), 2.645(89), 2.485(48),  
2.245(46), 1.809(40), 1.552(42), 1.530(43)

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 62512 and 64011

How to cite: Kampf, A.R., Mills, S.J., Housley, R.M., Rossman, G.R., Marty, J. and Thorne, B. (2013) Eckhardite, IMA 2012-085. CNMNC Newsletter No. 16, August 2013, page 2696; *Mineralogical Magazine*, 77, 2695–2709.

## IMA No. 2012-086

Clino-oscar Kempffite



Animas mine, Chocaya Province, Department of Potosí, Sur Chichas, Bolivia

Dan Topa\*, Emil Makovicky and Werner H. Paar

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

Lillianite homologue

Monoclinic:  $P2_1/c$ ; structure determined $a = 39.811(25)$ ,  $b = 19.280(12)$ ,  $c = 8.278(5)$  Å,  
 $\beta = 96.195(6)^\circ$ 3.367(35), 3.362(35), 3.329(100), 2.984(30),  
2.972(29), 2.882(43), 2.070(28), 2.058(16)

Type material is deposited in the collections of the Department of Materials Engineering and Physics, University of Salzburg, Salzburg, Austria, specimen number 15010

How to cite: Topa, D., Makovicky, E. and Paar, W.H. (2013) Clino-oscar Kempffite, IMA 2012-086. CNMNC Newsletter No. 16, August 2013, page 2696; *Mineralogical Magazine*, 77, 2695–2709.

## IMA No. 2012-087

Arsenquatranderite



Barika gold deposit, Sardasht, West Azerbaijan Province, Iran (the mineral field lies between 36°10' and 36°13'N, and between 45°37' and 45°41'E)

Dan Topa\*, Emil Makovicky, Hubert Putz, Georg Zagler and Husein Tajjedín

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

Lillianite homologue

Monoclinic:  $P2_1/c$ ; structure determined $a = 19.057(7)$ ,  $b = 17.039(6)$ ,  $c = 12.911(5)$  Å,  
 $\beta = 89.993(6)^\circ$ 3.724(40), 3.412(65), 3.282(100), 3.228(40),  
2.885(80), 2.733(42), 2.130(48)

Type material is deposited in the collections of the Department of Materials Engineering and Physics, University of Salzburg, Salzburg, Austria, specimen number 15011

How to cite: Topa, D., Makovicky, E., Putz, H., Zagler, G. and Tajjedín, H. (2013) Arsenquatranderite, IMA 2012-087. CNMNC

Newsletter No. 16, August 2013, page 2696;  
*Mineralogical Magazine*, **77**, 2695–2709.

**IMA No. 2012-088**

Oskarssonite

$\text{AlF}_3$

Eldfell volcano, Heimaey Island, Iceland  
Morten Jølnæs Jacobsen, Tonči Balić-Žunić\*,  
Donatella Mitolo, Anna Katerinopoulou, Anna  
Garavelli and Sveinn Peter Jakobsson

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

Low-temperature form of  $\text{AlF}_3$

Rhombohedral:  $R\bar{3}c$ ; structure determined

$a = 4.9817(4)$ ,  $c = 12.387(1)$  Å

3.54(100), 2.131(13), 2.066(8), 2.044(8),  
1.771(20), 1.613(8), 1.590(15), 1.574(10)

Type material is deposited in the collections of  
the Icelandic Institute of Natural History,  
Gardabaer, Iceland, sample number NI 24489

How to cite: Jacobsen, M.J., Balić-Žunić, T.,  
Mitolo, D., Katerinopoulou, A., Garavelli, A.  
and Jakobsson, S.P. (2013) Oskarssonite, IMA  
2012-088. CNMNC Newsletter No. 16, August  
2013, page 2697; *Mineralogical Magazine*, **77**,  
2695–2709.

**IMA No. 2012-089**

Vendidaite

$\text{Al}_2(\text{SO}_4)(\text{OH})_3\text{Cl}\cdot 6\text{H}_2\text{O}$

La Venda mine, Sierra Gorda, Antofagasta  
Region, Chile (22°53'30"S 69°20'50"W)

Nikita V. Chukanov\*, Sergey V. Krivovichev,  
Anastasiya P. Chernyatjeva, Gerhard Möhn,  
Igor V. Pekov, Dmitriy I. Belakovskiy,  
Konstantin V. Van and Joachim A. Lorenz

\*E-mail: nikchukanov@yandex.ru

New structure type

Monoclinic:  $C2/c$ ; structure determined

$a = 11.9246(16)$ ,  $b = 16.134(2)$ ,  $c = 7.4573(9)$  Å,  
 $\beta = 125.815(2)^\circ$

6.78(59), 4.849(94), 4.366(80), 4.030(75),  
3.855(100), 3.745(43), 2.764(45), 2.435(52)

Type material is deposited in the collections of  
the Fersman Mineralogical Museum of the  
Russian Academy of Sciences, Moscow,  
Russia, registration number 4335/1

How to cite: Chukanov, N.V., Krivovichev,  
S.V., Chernyatjeva, A.P., Möhn, G., Pekov, I.V.,  
Belakovskiy, D.I., Van, K.V. and Lorenz, J.A.  
(2013) Vendidaite, IMA 2012-089. CNMNC  
Newsletter No. 16, August 2013, page 2697;  
*Mineralogical Magazine*, **77**, 2695–2709.

**IMA No. 2012-090**

Pauloabibite

$\text{NaNbO}_3$

Jacupiranga mine, Cajati county, São Paulo  
state, Brazil

Luiz A.D. Menezes Filho\*, Daniel Atencio,  
Marcelo B. Andrade, Robert T. Downs, Mário  
L.S.C. Chaves, Antônio W. Romano, Ricardo  
Scholz and Aba C. Persiano

\*E-mail: lmenezesminerals@gmail.com

Polymorphous with isolueshite, lueshite and  
natroniobite

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

$a = 5.3287(5)$ ,  $c = 15.6197(17)$  Å

5.204(100), 4.435(2), 3.977(3), 2.975(4),  
2.666(2), 2.604(5), 2.372(2), 1.988(2)

Type material is deposited in the collections of  
the Museu de Geociências, Instituto de  
Geociências, Universidade de São Paulo, São  
Paulo, Brazil, specimen number DR740

How to cite: Menezes Filho, L.A.D., Atencio, D.,  
Andrade, M.B., Downs, T.T., Chaves, M.L.S.C.,  
Romano, A.W., Scholz, R. and Persiano, A.C.  
(2013) Pauloabibite, IMA 2012-090. CNMNC  
Newsletter No. 16, August 2013, page 2697;  
*Mineralogical Magazine*, **77**, 2695–2709.

**IMA No. 2012-091**

Joteite

$\text{Ca}_2\text{CuAl}[\text{AsO}_4][\text{AsO}_3(\text{OH})_2](\text{OH})_2(\text{H}_2\text{O})_5$

Jote mine, Pampa Larga district, Tierra  
Amarilla, Copiapó Province, Atacama Region,  
Chile

Anthony R. Kampf\*, Stuart J. Mills, Robert M.  
Housley, George R. Rossman, Barbara Nash,  
Maurizio Dini and Robert A. Jenkins

\*E-mail: akampf@nhm.org

New structure type

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

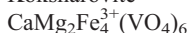
$a = 6.0530(2)$ ,  $b = 10.2329(3)$ ,  $c = 12.9112(4)$  Å,  
 $\alpha = 87.572(2)^\circ$ ,  $\beta = 78.480(2)^\circ$ ,  $\gamma = 78.697(2)^\circ$   
12.76(100), 5.009(23), 4.206(26), 3.92(24),  
3.40(25), 3.233(19), 2.97(20), 2.91(15)

Type 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  
63592 63593 and 63594

How to cite: Kampf, A.R., Mills, S.J., Housley,  
R.M., Rossman, G.R., Nash, B., Dini, M. and  
Jenkins, R.A. (2013) Joteite, IMA 2012-091.  
CNMNC Newsletter No. 16, August 2013, page  
2697; *Mineralogical Magazine*, **77**, 2695–2709.

## IMA No. 2012-092

Koksharovite



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

Igor V. Pekov\*, Natalia V. Zubkova, Pavel M. Kartashov, Vasilij O. Yapaskurt, Yury S. Polekhovskiy and Dmitry Y. Pushcharovskiy

\*E-mail: igorpekov@mail.ru

Structurally related to howardevansite and grigorievite

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

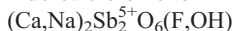
$a = 8.1758(7)$ ,  $b = 9.8292(9)$ ,  $c = 6.6940(6)$  Å,  
 $\alpha = 105.041(8)$ ,  $\beta = 102.040(8)$ ,  $\gamma = 106.025(8)^\circ$   
7.47(28), 3.75(44), 3.26(27), 3.17(100),  
3.09(94), 2.802(25), 2.039(28), 1.664(25)

Type material is deposited in the collections of the Fersman Mineralogical Museum of the Russian Academy of Sciences, Moscow, Russia, registration number 4329/1

How to cite: Pekov, I.V., Zubkova, N.V., Kartashov, P.M., Yapaskurt, V.O., Polekhovskiy, Y.S. and Pushcharovskiy, D.Y. (2013) Koksharovite, IMA 2012-092. CNMNC Newsletter No. 16, August 2013, page 2698; *Mineralogical Magazine*, 77, 2695–2709.

## IMA No. 2012-093

Fluorcalciroméite



Starlera mine, Starlera Valley, Ferrera, Interrhein district, Grischun, Switzerland

Daniel Atencio\*, Marco E. Ciriotti and Marcelo B. Andrade

\*E-mail: datencio@usp.br

Pyrochlore supergroup

Cubic:  $Fd\bar{3}m$ ; structure determined

$a = 10.2987(8)$  Å  
5.946(100), 3.105(29), 2.973(77), 2.102(11),  
1.982(15), 1.821(54), 1.553(29), 1.442(11)

Type material is deposited in the collections of the Museo Regionale Di Scienze Naturali, Sezione di Mineralogia, Petrografia e Geologia, Torino, Italy, registration number M/15925; a cotype sample is also deposited in the RRUFF project, registration number R120140

How to cite: Atencio, D., Ciriotti, M.E. and Andrade, M.B. (2013) Fluorcalciroméite, IMA 2012-093. CNMNC Newsletter No. 16, August 2013, page 2698; *Mineralogical Magazine*, 77, 2695–2709.

## IMA No. 2012-094

Camaronesite



Cuya, Camarones Valley, Arica Province, Chile (19°5'58S 70°7'6W)

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

\*E-mail: akampf@nhm.org

New structure type

Trigonal:  $R\bar{3}2$ ; structure determined

$a = 9.0833(5)$ ,  $c = 42.944(3)$  Å  
7.74(45), 7.415(100), 4.545(72), 4.426(26),  
3.862(32), 3.298(93), 3.179(25), 2.818(25)

Type 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 64023, 64024, 64025, 64026 and 64027

How to cite: Kampf, A.R., Mills, S.J., Nash, B., Housley, R.M., Rossman, G.R. and Dini, M. (2013) Camaronesite, IMA 2012-094. CNMNC Newsletter No. 16, August 2013, page 2698; *Mineralogical Magazine*, 77, 2695–2709.

## IMA No. 2011-063a

Barrotite



Roua copper mines, Roua, Dôme de Barrot, Departement Alpes-Maritimes, France

Halil Sarp\* and Radovan Cerny

\*E-mail: hsarp@adu.edu.tr

Related to, but distinct from chalcophyllite

Trigonal:  $P3_1$  or  $P3_2$

$a = 10.650(2)$ ,  $c = 21.954(7)$  Å  
7.34(100), 3.670(90), 2.645(90), 2.587(30),  
2.396(25), 2.278(15), 1.537(50), 1.331(20)

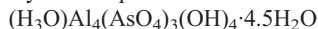
Type material has been deposited in the collections of Aydin Adnan Menderes Üniversitesi, Memnune İnci Meslek Yüksek Okulu, Karacasu-Aydin, Turkey, specimen number KMY-26, and the Laboratory of Crystallography, University of Geneva, Geneva, Switzerland, specimen number CR-011

How to cite: Sarp, H. and Cerny, R. (2013) Barrotite, IMA 2011-061a. CNMNC Newsletter No. 16, August 2013, page 2698; *Mineralogical Magazine*, 77, 2695–2709.

## NEW MINERAL PROPOSALS APPROVED IN MARCH 2013

### IMA No. 2012-050

Hydroniumpharmacoalumite



Maria Josefa Mine, Rodalquilar, Andalusia, Spain (36°51'30"N 2°5'2"W)

Rupert Hochleitner\*, Karl T. Fehr, Melanie Kaliwoda, Amanda Günther, Wolfgang W. Schmahl and Sohyun Park

\*E-mail: rupert.hochleitner@lrz.uni-muenchen.de

Pharmacosiderite group

Cubic:  $P\bar{4}3m$ ; structure determined

$a = 7.7379(1) \text{ \AA}$

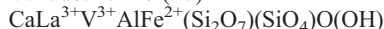
7.619(100), 4.444(13), 3.851(26), 3.448(8), 2.728(16), 2.439(10), 2.329(10), 1.730(8)

The holotype is preserved in the Mineralogical State Collection, Museum Reich der Kristalle, München, Germany, catalogue number MSM 33887

How to cite: Hochleitner, R., Fehr, K.T., Kaliwoda, M., Günther, A., Schmahl, W.W. and Park, S. (2013) Hydroniumpharmacoalumite, IMA 2012-050. CNMNC Newsletter No. 16, August 2013, page 2699; *Mineralogical Magazine*, 77, 2695–2709.

### IMA No. 2012-095

Vanadoallanite-(La)



Shobu area, Ise City, Mie Prefecture, Japan  
Mariko Nagashima\*, Daisuke Nishio-Hamane, Norimitsu Tomita, Tetsuo Minakawa and Sachio Inaba

\*E-mail: nagashim@yamaguchi-u.ac.jp

Epidote group

Monoclinic:  $P2_1/m$ ; structure determined

$a = 8.8985(2)$ ,  $b = 5.7650(1)$ ,  $c = 10.1185(2) \text{ \AA}$ ,  
 $\beta = 114.120(1)^\circ$

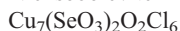
7.908(27), 3.521(49), 2.912(23), 2.910(100), 2.883(38), 2.716(37), 2.715(36), 2.621(53)

Type material is deposited in the collections of the National Museum of Nature and Science, Tsukuba, Japan, specimen number NSM M-43737

How to cite: Nagashima, M., Nishio-Hamane, D., Tomita, N., Minakawa, T. and Inaba, S. (2013) Vanadoallanite-(La), IMA 2012-095. CNMNC Newsletter No. 16, August 2013, page 2699; *Mineralogical Magazine*, 77, 2695–2709.

### IMA No. 2012-097

Nicksobolevite



Second cinder cone, North Breach of the Great fissure Tolbachik eruption, Kamchatka Peninsula, Russia

L.P. Vergasova, T.F. Semenova, T.F., S.V. Krivovichev\*, S.K. Filatov, A.A. Zolotarev Jr and V.V. Ananiev

\*E-mail: skrivovi@mail.ru

New structure type

Monoclinic:  $P2_1/c$ ; structure determined

$a = 10.906(4)$ ,  $b = 14.442(5)$ ,  $c = 10.395(4) \text{ \AA}$ ,  
 $\beta = 113.559(8)^\circ$

8.25(77), 5.877(100), 4.239(26), 3.619(37), 3.257(95), 2.715(50), 2.668(26), 2.278(40)

Type material is deposited in the collections of the Mineralogical Museum, Department of Mineralogy, St Petersburg University, St Petersburg, Russia, catalogue number 1/19599

How to cite: Vergasova, L.P., Semenova, T.F., Krivovichev, S.V., Filatov, S.K., Zolotarev, A.A., Jr and Ananiev, V.V. (2013) Nicksobolevite, IMA 2012-097. CNMNC Newsletter No. 16, August 2013, page 2699; *Mineralogical Magazine*, 77, 2695–2709.

### IMA No. 2012-098

Baličžuničite



La Fossa volcano, Vulcano Island, Aeolian archipelago, Italy

Daniela Pinto\*, Anna Garavelli and Donatella Mitolo

\*E-mail: daniela.pinto@uniba.it

Known synthetic phase

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

$a = 6.7386(3)$ ,  $b = 11.1844(5)$ ,  $c = 14.1754(7) \text{ \AA}$ ,  
 $\alpha = 80.082(2)$ ,  $\beta = 88.462(2)$ ,  $\gamma = 89.517(2)^\circ$

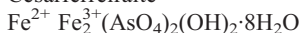
5.749(29), 5.562(49), 5.433(46), 3.489(100), 3.409(78), 3.366(74), 3.146(91), 3.057(28)

Type material is deposited in the collections of the C.L. Garavelli Museum, Dipartimento di Scienze della Terra e Geoambientali, Università degli Studi di Bari "Aldo Moro", Italy, sample number 17/nm

How to cite: Pinto, D., Garavelli, A. and Mitolo, D. (2013) Baličžuničite, IMA 2012-098. CNMNC Newsletter No. 16, August 2013, page 2699; *Mineralogical Magazine*, 77, 2695–2709.

## IMA No. 2012-099

Césarferreiraite



Eduardo pegmatite, Boa Vista Creek, Conselheiro Pena Municipality, Minas Gerais, Brazil (19°4'53.09''S 41°30'34.10''W)

Ricardo Scholz\*, Nikita V. Chukanov, Luiz A.D. Menezes Filho, Daniel Atencio, Leonardo Lagoeiro, Fernanda M. Belotti, Mário L.S.C. Chaves, Antônio W. Romano, Paulo R. Brandão, Dmitriy I. Belakovskiy and Igor Pekov  
\*E-mail: r\_scholz\_br@yahoo.com

Related to the stewartite group

Triclinic:  $P\bar{1}$ 

$a = 5.383(2)$ ,  $b = 6.878(2)$ ,  $c = 10.364(3)$  Å,  $\alpha = 96.43(4)$ ,  $\beta = 102.29(2)$ ,  $\gamma = 109.17(3)^\circ$   
9.85(95), 6.35(100), 3.671(29), 3.158(32), 2.960(39), 2.884(35), 2.680(29), 2.540(23)

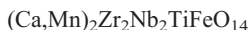
Type material is deposited in the collections of the Museu de Ciência e Técnica, Escola de Minas, Universidade Federal de Ouro Preto, Praça Tiradentes, Ouro Preto, Brazil, registration number SAA-011

How to cite: Scholz, R., Chukanov, N.V., Menezes Filho, L.A.D., Atencio, D., Lagoeiro, L., Belotti, F.M., Chaves, M.L.S.C., Romano, A.W., Brandão, P.R., Belakovskiy, D.I. and Pekov, I. (2013) Césarferreiraite, IMA 2012-099. CNMNC Newsletter No. 16, August 2013, page 2700; *Mineralogical Magazine*, 77, 2695–2709.

## NEW MINERAL PROPOSALS APPROVED IN APRIL 2013

## IMA No. 2012-100

Laachite



Dellen pumice quarry, Mendig, Eifel region, Rhineland-Palatinate, Germany

Nikita V. Chukanov\*, Sergey V. Krivovichev, Anna S. Pakhomova, Igor V. Pekov, Christof Schäfer, Marina F. Vigasina and Konstantin V. Van  
\*E-mail: chukanov@icp.ac.ru

Monoclinic analogue of zirconolite-3O with Nb dominant over Ti

Monoclinic:  $C2/c$ ; structure determined

$a = 7.3119(5)$ ,  $b = 14.179(1)$ ,  $c = 10.1700(7)$  Å,  
 $\beta = 90.072(2)^\circ$

4.298(22), 2.967(100), 2.901(59), 2.551(32), 1.800(34), 1.541(24), 1.535(23), 1.529(23)

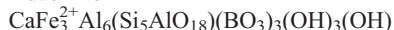
Type material is deposited in the collections of

the Fersman Mineralogical Museum of the Russian Academy of Sciences, Moscow, Russia, registration number 4361/1

How to cite: Chukanov, N.V., Krivovichev, S.V., Pakhomova, A.S., Pekov, I.V., Schäfer, C., Vigasina, M.F. and Van, K.V. (2013) Laachite, IMA 2012-100. CNMNC Newsletter No. 16, 2013, page 2700; *Mineralogical Magazine*, 77, 2695–2709.

## IMA No. 2012-101

Adachiite



Kiura mine, Saiki City, Oita Prefecture, Japan  
Daisuke Nishio-Hamane\*, Tetsuo Minakawa, Jun-ichi Yamaura, Takashi Oyama, Masayuki Ohnishi and Norimasa Shimobayashi

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

Tourmaline supergroup

Trigonal:  $R3m$ ; structure determined

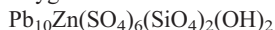
$a = 15.9290(2)$ ,  $c = 7.1830(2)$  Å  
4.960(34), 4.225(40), 4.002(65), 3.455(34), 2.950(31), 2.903(33), 2.584(100), 2.043(52)

Type material is deposited in the collections of the National Museum of Nature and Science, Tsukuba, Japan, specimen number NSM M-43748

How to cite: Nishio-Hamane, D., Minakawa, T., Yamaura, J., Oyama, T., Ohnishi, M. and Shimobayashi, N. (2013) Adachiite, IMA 2012-101. CNMNC Newsletter No. 16, August 2013, page 2700; *Mineralogical Magazine*, 77, 2695–2709.

## IMA No. 2013-001

Raygrantite



Evening Star Mine, Big Horn Mountains, Maricopa County, Arizona, USA

Hexiong Yang\*, Marcelo B. Andrade, Robert T. Downs, Ronald B. Gibbs and Robert A. Jenkins

\*E-mail: hyang@u.arizona.edu

Iranite group

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

$a = 9.3175(4)$ ,  $b = 11.1973(5)$ ,  $c = 10.8318(5)$  Å,  
 $\alpha = 120.374(2)$ ,  $\beta = 90.511(2)$ ,  $\gamma = 56.471(2)^\circ$   
4.753(56), 4.288(32), 3.267(63), 3.102(100), 2.996(29), 2.851(35), 2.783(31), 2.707(31)

Type material is deposited in the collections of the University of Arizona Mineral Museum, Tucson, Arizona, USA, catalogue number 19345, and the RRUFF Project, deposition number R120151

How to cite: Yang, H., Andrade, M.B., Downs, R.T., Gibbs, R.B. and Jenkins, R.A. (2013) Raygrantite, IMA 2013-001. CNMNC Newsletter No. 16, August 2013, page 2700; *Mineralogical Magazine*, **77**, 2695–2709.

**IMA No. 2013-002**

Sanguite

$\text{KCuCl}_3$

Glavnaya Tenoritovaya fumarole, Second scoria cone, Northern Breakthrough, Great Tolbachik Fissure Eruption, Tolbachik volcano, Kamchatka Peninsula, Far Eastern Region, Russia (55°41'N, 160°14'E)

Igor V. Pekov\*, Natalia V. Zubkova, Dmitriy I. Belakovskiy, Inna S. Lykova, Marina F. Vigasina, Evgeny G. Sidorov and Dmitry Y. Pushcharovsky

\*E-mail: igorpekov@mail.ru

$\text{NH}_4\text{CdCl}_3$  structure type

Monoclinic:  $P2_1/c$ ; structure determined

$a = 4.0281(2)$ ,  $b = 13.7906(5)$ ,  $c = 8.7335(4)$  Å,

$\beta = 97.137(4)^\circ$   
7.36(78), 6.92(100), 3.684(69), 3.146(64),

3.068(63), 2.857(73), 2.709(82), 2.574(56)

Type material is deposited in the collections of the collections of the Fersman Mineralogical Museum of the Russian Academy of Sciences,

Moscow, Russia, registration number 4363/1

How to cite: Pekov, I.V., Zubkova, N.V., Belakovskiy, D.I., Lykova, I.S., Vigasina, M.F., Sidorov, E.G. and Pushcharovsky, D.Y. (2013) Sanguite, IMA 2013-002. CNMNC Newsletter No. 16, August 2013, page 2701; *Mineralogical Magazine*, **77**, 2695–2709.

**IMA No. 2013-003**

Deveroite-(Ce)

$\text{Ce}_2(\text{C}_2\text{O}_4)_3 \cdot 10\text{H}_2\text{O}$

Mount Cervandone, Devero valley, Baceno, Verbano-Cusio-Ossola, Piedmont, Italy

Alessandro Guastoni, Fabrizio Nestola\*, Paolo Gentile, Federico Zorzi, Arianna Lanza, Luca Peruzzo, Matteo Alvaro and Nicola Casati

\*E-mail: fabrizio.nestola@unipd.it

Known structure type

Monoclinic:  $P2_1/c$

$a = 11.2725(9)$ ,  $b = 9.6109(9)$ ,  $c = 10.346(1)$  Å,

$\beta = 114.539(7)^\circ$   
10.254(100), 6.591(22), 5.127(29), 4.986(40),

4.826(41), 4.805(42), 3.418(27), 2.048(17)

Type material is deposited in the collections of the collections of the Museum of Mineralogy of

the Department of Geosciences at the University of Padova, Italy, catalogue number MMP M12148

How to cite: Guastoni, A., Nestola, F., Gentile, P., Zorzi, F., Lanza, A., Peruzzo, L., Alvaro, M. and Casati, N. (2013) Deveroite-(Ce), IMA 2013-003. CNMNC Newsletter No. 16, August 2013, page 2701; *Mineralogical Magazine*, **77**, 2695–2709.

**IMA No. 2013-004**

Anzaite-(Ce)

$\text{Ce}_4\text{Fe}^{2+}\text{Ti}_6\text{O}_{18}(\text{OH})_2$

Afrikanda intrusive complex, Kola Alkaline Province, Murmansk Region, Russia (67° 26'N 32° 42' E)

Anton R. Chakhmouradian\*, Mark A. Cooper, Luca Medici, Yassir A. Abdu and Yulia S. Shelukhina

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

New structure type

Monoclinic:  $C2/m$ ; structure determined

$a = 5.293(1)$ ,  $b = 14.586(3)$ ,  $c = 5.233(1)$  Å,

$\beta = 97.30(2)^\circ$   
3.814(11), 2.596(100), 2.046(12), 1.935(18),

1.730(12), 1.506(14), 1.286(13), 1.272(12)

Type material is deposited in the collections of the collections of the Robert B. Ferguson Museum of Mineralogy, University of Manitoba, Winnipeg, Manitoba, Canada, catalogue number M7888

How to cite: Chakhmouradian, A.R., Cooper, M.A., Medici, L., Abdu, Y.A. and Shelukhina, Y.S. (2013) Anzaite -(Ce), IMA 2013-004. CNMNC Newsletter No. 16, August 2013, page 2701; *Mineralogical Magazine*, **77**, 2695–2709.

**IMA No. 2013-005**

Kolskyite

$\text{CaNa}_2\text{Ti}_4(\text{Si}_2\text{O}_7)_2\text{O}_4(\text{H}_2\text{O})_7$

Kirovskii mine, Mount Kukisvumchorr, Khibiny alkaline massif, Kola Peninsula, Russia

Fernando Cámara\*, Elena Sokolova, Frank C. Hawthorne and Alexander P. Khomyakov

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

New structure type

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

$a = 5.387(1)$ ,  $b = 7.091(1)$ ,  $c = 15.473(3)$  Å,

$\alpha = 96.580(4)$ ,  $\beta = 93.948(4)$ ,  $\gamma = 89.818(4)^\circ$   
15.161(100), 3.069(12), 2.938(10), 2.810(19),

2.680(9), 2.618(8), 2.595(8), 1.771(9)

Type material is deposited in the collections of

the collections of the Fersman Mineralogical Museum of the Russian Academy of Sciences, Moscow, Russia, catalogue number 4383/1  
How to cite: Cámara, F., Sokolova, E., Hawthorne, F.C. and Khomyakov, A.P. (2013) Kolskyite, IMA 2013-005. CNMNC Newsletter No. 16, August 2013, page 2701; *Mineralogical Magazine*, **77**, 2695–2709.

#### IMA No. 2013-006

Carducciite  
(Ag<sub>2</sub>Sb<sub>2</sub>)Pb<sub>12</sub>(As,Sb)<sub>16</sub>S<sub>40</sub>  
Pollone mine, Valdicastello Carducci, Pietrasanta, Apuan Alps, Tuscany, Italy (43°57'N 10°16'E)  
Cristian Biagioni\*, Paolo Orlandi and Yves Moëlo  
\*E-mail: biagioni@dst.unipi.it  
Sb-rich isotype of rathite  
Monoclinic:  $P2_1/c$ ; structure determined  
 $a = 8.4909(3)$ ,  $b = 8.0227(3)$ ,  $c = 25.3957(9)$  Å,  
 $\beta = 100.382(2)^\circ$   
3.689, 3.416, 3.125, 2.989, 2.894, 2.753, 2.250  
Type material is deposited in the collections of the collections of the Museo di Storia Naturale e del Territorio, Università di Pisa, Calci (Pisa), Italy, catalogue number 19646  
How to cite: Biagioni, C., Orlandi, P. and Moëlo, Y. (2013) Carducciite, IMA 2013-006. CNMNC Newsletter No. 16, August 2013, page 2702; *Mineralogical Magazine*, **77**, 2695–2709.

#### IMA No. 2013-007

Correianevesite  
Fe<sup>2+</sup>Mn<sub>2</sub><sup>2+</sup>(PO<sub>4</sub>)<sub>2</sub>·3H<sub>2</sub>O  
Cigana mine, Conselheiro Pena, Rio Doce Valley, Minas Gerais, Brazil  
Nikita V. Chukanov\*, Ricardo Scholz, Natalia V. Zubkova, Igor V. Pekov, Dmitriy I. Belakovskiy, Konstantin V. Van, Leonardo Lagoeiro, Leonardo M. Graça, Klaus Krambrock, Luiz C.A. de Oliveira, Luiz A.D. Menezes Filho and Dmitriy Y. Pushcharovsky  
\*E-mail: nikchukanov@yandex.ru  
Reddingite group  
Orthorhombic:  $Pbna$ ; structure determined  
 $a = 9.4887(2)$ ,  $b = 10.1149(2)$ ,  $c = 8.7062(2)$  Å  
5.08(43), 4.314(28), 3.220(100), 3.125(20), 2.756(35), 2.686(25), 2.436(22), 2.233(23)  
Type material is deposited in the collections of the collections of the Museu de Ciência e Técnica, Escola de Minas, Universidade Federal de Ouro Preto, Praça Tiradentes, Ouro

Preto, Brazil, registration number SAA-081B  
How to cite: Chukanov, N.V., Scholz, R., Zubkova, N.V., Pekov, I.V., Belakovskiy, D.I., Van, K.V., Lagoeiro, L., Graça, L.M., Krambrock, K., de Oliveira, L.C.A., Menezes Filho, L.A.D. and Pushcharovsky, D.Y. (2013) Correianevesite, IMA 2013-007. CNMNC Newsletter No. 16, August 2013, page 2702; *Mineralogical Magazine*, **77**, 2695–2709.

#### IMA No. 2013-008

Chrysothallite  
K<sub>6</sub>Cu<sub>6</sub>Tl<sup>3+</sup>Cl<sub>17</sub>(OH)<sub>4</sub>·H<sub>2</sub>O  
Pyatno (Spot) and Glavnaya Tenoritovaya (Major Tenorite) fumaroles, Second scoria cone, Northern Breakthrough of the Great Tolbachik Fissure Eruption, Tolbachik volcano, Kamchatka Peninsula, Far-Eastern Region, Russia (55°41'N 160°14'E)  
Igor V. Pekov\*, Natalia V. Zubkova, Dmitriy I. Belakovskiy, Marina F. Vigasina, Evgeny G. Sidorov and Dmitriy Y. Pushcharovsky  
\*E-mail: igorpekov@mail.ru  
New structure type  
Tetragonal:  $I4/mmm$ ; structure determined  
 $a = 11.3689(7)$ ,  $c = 26.207(2)$  Å  
13.20(44), 6.88(100), 5.16(30), 4.027(26), 3.471(28), 3.153(30), 3.075(47), 2.771(38)  
Type material is deposited in the collections of the collections of the Fersman Mineralogical Museum of the Russian Academy of Sciences, Moscow, Russia, registration number 4384/1  
How to cite: Pekov, I.V., Zubkova, N.V., Belakovskiy, D.I., Vigasina, M.F., Sidorov, E.G. and Pushcharovsky, D.Y. (2013) Chrysothallite, IMA 2013-008. CNMNC Newsletter No. 16, August 2013, page 2702; *Mineralogical Magazine*, **77**, 2695–2709.

#### IMA No. 2013-009

Engelhauptite  
KCu<sub>3</sub>(V<sub>2</sub>O<sub>7</sub>)(OH)<sub>2</sub>Cl  
Kahlenberg quarry, Daun, Oberstadtfeld Municipality, Eifel Mountains, Rhineland-Palatinate, Germany  
Igor V. Pekov\*, Oleg I. Siidra, Nikita V. Chukanov, Vasily O. Yapaskurt, Sergey N. Britvin, Sergey V. Krivovichev, Willi Schüller and Bernd Ternes  
\*E-mail: igorpekov@mail.ru  
New structure type  
Hexagonal:  $P6_3/mmc$ ; structure determined  
 $a = 5.922(2)$ ,  $c = 14.513(5)$  Å



7.32(98), 4.224(17), 2.979(100), 2.759(19),  
2.565(18), 2.424(18), 1.765(16), 1.481(14)

Type material is deposited in the collections of  
the collections of the Fersman Mineralogical  
Museum of the Russian Academy of Sciences,  
Moscow, Russia, registration number 4309/1

How to cite: Pekov, I.V., Siidra, O.L., Chukanov,  
N.V., Yapaskurt, V.O., Britvin, S.N.,  
Krivovichev, S.V., Schüller, W. and Ternes, B.  
(2013) Engelhauptite, IMA 2013-009. CNMNC  
Newsletter No. 16, August 2013, page 2702;  
*Mineralogical Magazine*, **77**, 2695–2709.

## NEW MINERAL PROPOSALS APPROVED IN MAY 2013

### IMA No. 2013-010

Mapiquiroite

$(\text{Sr,Pb})(\text{U,Y})\text{Fe}_2(\text{Ti,Fe}^{3+},\text{Cr}^{3+})_{18}\text{O}_{38}$

Buca della Vena mine (43°59'N 10°18'E) and  
the Monte Arsiccio mine (43°58'N 10°17'E),  
Stazzema, Apuan Alps, Tuscany, Italy  
Cristian Biagioni\*, Paolo Orlandi, Marco  
Pasero, Fabrizio Nestola and Luca Bindi

\*E-mail: biagioni@dst.unipi.it

Crichtonite group

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

$a = 10.3719(7)$ ,  $c = 20.875(1)$  Å (Buca della  
Vena)

6.81(76), 5.18(100), 4.51(44), 3.404(41),  
2.994(35) (Buca della Vena)

Type material is deposited in the collections of  
the collections of the Museo di Storia Naturale,  
Università di Pisa, Via Roma 79, Calci (Pisa),  
Italy, catalogue numbers 18837 (Buca della  
Vena) and 19650 (Monte Arsiccio)

How to cite: Biagioni, C., Orlandi, P., Pasero,  
M., Nestola, F. and Bindi, L. (2013)  
Mapiquiroite, IMA 2013-010. CNMNC  
Newsletter No. 16, August 2013, page 2703;  
*Mineralogical Magazine*, **77**, 2695–2709.

### IMA No. 2013-011

Leverettite

$\text{Cu}_3\text{CoCl}_2(\text{OH})_6$

Torrecillas mine, Salar Grande, Iquique  
Province, Tarapacá Region, Chile (20°58'13''S  
70°8'17''W)

Anthony R. Kampf\*, Matthew J. Sciberras,  
Peter A. Williams and Maurizio Dini

\*E-mail: akampf@nhm.org

Co analogue of herbertsmithite and gillardite

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

$a = 6.8436(6)$ ,  $c = 14.0637(10)$  Å

5.469(90), 4.701(18), 2.905(22), 2.766(100),  
2.269(66), 1.822(26), 1.711(33), 1.383(23)

Type material is deposited in the collections of  
the Natural History Museum of Los Angeles  
County, Los Angeles, California, USA, cata-  
logue numbers 64031, 64032, 64033 and 64034

How to cite: Kampf, A.R., Sciberras, M.J.,  
Williams, P.A. and Dini, M. (2013) Leverettite,  
IMA 2013-011. CNMNC Newsletter No. 16,  
2013, page 2703; *Mineralogical Magazine*, **77**,  
2695–2709.

### IMA No. 2013-012

Cairncrossite

$\text{Sr}_2\text{Ca}_7(\text{Si}_4\text{O}_{10})_4(\text{OH})_2 \cdot 15\text{H}_2\text{O}$

Block 17, Wessels Mine, Northern Cape  
Province, South Africa

Gerald Giester\*, Christian L. Lengauer, Helmut  
Pristacz, Branko Rieck and Karl-Ludwig von  
Bezing

\*E-mail: gerald.giester@univie.ac.at

Similar to minerals of the gyrolite and reyerite  
groups

Triclinic:  $R\bar{3}m$ ; structure determined

$a = 9.624(2)$ ,  $b = 9.634(2)$ ,  $c = 15.657(3)$  Å,

$\alpha = 100.80(1)$ ,  $\beta = 91.22(1)$ ,  $\gamma = 119.80(1)^\circ$

15.27(100), 5.091(11), 4.198(11), 4.136(8),  
3.818(19), 3.164(10), 3.071(10), 3.061(9)

Type material is deposited in the collections of  
the Institut für Mineralogie und  
Kristallographie, Universität Wien, Wien,  
Austria, registration number 13079

How to cite: Giester, G., Lengauer, C.L.,  
Pristacz, H., Rieck, B. and von Bezing, K.-L.  
(2013) Cairncrossite, IMA 2013-012. CNMNC  
Newsletter No. 16, August 2013, page 2703;  
*Mineralogical Magazine*, **77**, 2695–2709.

### IMA No. 2013-014

Paratacamite-(Mg)

$\text{Cu}_3(\text{Mg,Cu})\text{Cl}_2(\text{OH})_6$

Cuya NE5 chloride occurrence, Cuya,  
Camarones Valley, Arica Province, Chile  
(19°08'14S 70°08'49W)

Anthony R. Kampf\*, Matthew J. Sciberras,  
Peter Leverett, Peter A. Williams, Thomas  
Malcherek, Jochen Schlüter, Mark Welch and  
Maurizio Dini

\*E-mail: akampf@nhm.org

Substituted derivative of paratacamite

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

$a = 13.689(1)$ ,  $c = 14.025(1)$  Å

5.469(87), 4.686(26), 2.904(34), 2.762(100), 2.265(81), 1.819(26), 1.710(34), 1.380(19)

Type material is deposited in the collections of the Natural History Museum of Los Angeles County, Los Angeles, California, USA, catalogue numbers 64041, 64042 and 64043

How to cite: Kampf, A.R., Sciberras, M.J., Leverett, P., Williams, P.A., Malcherek, T., Schlüter, J., Welch, M. and Dini, M. (2013) Paratacamite-(Mg), IMA 2013-014. CNMNC Newsletter No. 16, August 2013, page 2703; *Mineralogical Magazine*, **77**, 2695–2709.

#### IMA No. 2013-016

Ferroindialite

$(\text{Fe}^{2+}, \text{Mg})_2\text{Al}_4\text{Si}_5\text{O}_{18}$

Ettringer Bellerberg, Kottenheim, Laacher See area, Rhineland-Palatinate, Germany

Nikita V. Chukanov\*, Sergey M. Aksenov, Igor V. Pekov, Bernd Ternes, Willi Schüller, Dmitriy I. Belakovskiy, Konstantin V. Van and Günter Blass

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

Beryl group

Hexagonal:  $P6/mcc$ ; structure determined

$a = 9.8759(3)$ ,  $c = 9.3102(3)$  Å

8.59(100), 4.094(27), 3.390(35), 3.147(19), 3.055(31), 2.657(12), 1.695(9)

Type material is deposited in the collections of the Fersman Mineralogical Museum of the Russian Academy of Sciences, Moscow, Russia, registration number 4400/1

How to cite: Chukanov, N.V., Aksenov, S.M., Pekov, I.G., Ternes, B., Schüller, W., Belakovskiy, D.I., Van, K.V. and Blass, G. (2013) Ferroindialite, IMA 2013-016. CNMNC Newsletter No. 16, August 2013, page 2704; *Mineralogical Magazine*, **77**, 2695–2709.

#### IMA No. 2013-017

Ophirite

$\{[\text{Fe}^{3+}, \text{Zn}, \text{Sb}^{5+}]_2^{[6]}(\text{Mn}^{2+}, \text{Zn}, \text{Fe}^{3+}, \text{Sb}^{5+})_2(\text{H}_2\text{O})_2\}[\text{Zn}, \text{Fe}^{3+}, \text{Fe}^{2+}, \text{Mn}^{2+}]_2^{[4]} \{[\text{W}^{6+}, \text{Mg}]_{18}\text{O}_{68}\} \{[\text{Mg}(\text{H}_2\text{O})_6]_2^{[6]}[\text{Mg}, \text{Fe}^{3+}, \text{Mn}^{2+}, \square](\text{H}_2\text{O})_6]_2^{[7]}(\text{Ca}, \text{Mn}^{2+}, \square)(\text{H}_2\text{O})_6\}_2 \cdot 10\text{H}_2\text{O}$

Ophir Hill Consolidated mine, Oquirrh Mountains, Tooele County, Utah, USA

Anthony R. Kampf\*, John M. Hughes, Joe Marty, Barbara P. Nash and Stephen E. Wright

\*E-mail: akampf@nhm.org

New structure type

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

$a = 11.9860(2)$ ,  $b = 13.2073(2)$ ,  $c = 17.689(1)$  Å,  
 $\alpha = 69.690(5)$ ,  $\beta = 85.364(6)$ ,  $\gamma = 64.875(5)^\circ$   
16.72(38), 11.33(91), 10.69(100), 8.27(55),  
5.44(33), 2.992(75), 2.760(55), 2.594(33)

Type material is deposited in the collections of the Natural History Museum of Los Angeles County, Los Angeles, California, USA, catalogue numbers 64029 and 64030

How to cite: Kampf, A.R., Hughes, J.M., Marty, J., Nash, B.P. and Wright, S.E. (2013) Ophirite, IMA 2013-017. CNMNC Newsletter No. 16, 2013, page 2704; *Mineralogical Magazine*, **77**, 2695–2709.

#### IMA No. 2013-018

Nuwaite

$\text{Ni}_6\text{GeS}_2$

Allende CV3 meteorite

Chi Ma

\*E-mail: chi@gps.caltech.edu

New structure type

Tetragonal:  $I4/mmm$

$a = 3.650$ ,  $c = 18.141$  Å

4.535(100), 3.024(9), 1.963(10), 1.825(31),  
1.704(10), 1.693(24), 1.291(10)

Type material is deposited in the collections of the Smithsonian Institution's National Museum of Natural History, Washington DC, USA, registration number USNM 7616

How to cite: Ma, C. (2013) Nuwaite, IMA 2013-018. CNMNC Newsletter No. 16, August 2013, page 2704; *Mineralogical Magazine*, **77**, 2695–2709.

### NEW MINERAL PROPOSALS APPROVED IN JUNE 2013

#### IMA No. 2012-096

Diegogattaite

$\text{Na}_2\text{CaCu}_2\text{Si}_8\text{O}_{20}\cdot\text{H}_2\text{O}$

Wessels mine, Kalahari Manganese fields, Northern Cape Province, Republic of South Africa

Michael S. Rumsey\*, Mark D. Welch and John Spratt

\*E-mail: m.rumsey@nhm.ac.uk

New structure type

Monoclinic:  $C2/m$ ; structure determined

$a = 12.2439(6)$ ,  $b = 15.7514(4)$ ,  $c = 10.6008(3)$  Å,  
 $\beta = 125.623(2)^\circ$

8.617(84), 3.938(100), 3.513(60), 3.264(34),  
3.224(38), 3.088(60), 2.890(61), 2.802(48)

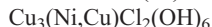
Type material is deposited in the type collection

at the Natural History Museum, London, registration number BM 2013.2

How to cite: Rumsey, M.S., Welch, M.D. and Spratt, J. (2013) Diegogattaite, IMA 2012-096. CNMNC Newsletter No. 16, August 2013, page 2704; *Mineralogical Magazine*, **77**, 2695–2709.

#### IMA No. 2013-013

Paratacamite-(Ni)



Carr Boyd Rocks mine, Western Australia, Australia (30°04'S 121°37'E)

Matthew J. Sciberras, Peter Leverett, Peter A. Williams\*, David E. Hibbs, Thomas Malcherek, Jochen Schlüter, Mark Welch, Peter J. Downes and Anthony R. Kampf

\*E-mail: p.williams@uws.edu.au

Substituted derivative of paratacamite

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

$a = 13.682(2)$ ,  $c = 13.916(2)$  Å

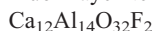
5.445(81), 4.637(13), 4.505(8), 2.894(21), 2.751(100), 2.254(65), 1.815(14), 1.708(9)

Type material is deposited in the collections of the Western Australian Museum, Welshpool, Western Australia, Australia, specimen number WAM M365.2003

How to cite: Sciberras, M.J., Leverett, P., Williams, P.A., Hibbs, D.E., Malcherek, T., Schlüter, J., Welch, M., Downes, P.J. and Kampf, A.R. (2013) Paratacamite-(Ni), IMA 2013-013. CNMNC Newsletter No. 16, August 2013, page 2705; *Mineralogical Magazine*, **77**, 2695–2709.

#### IMA No. 2013-019

Fluormayenite



Jabel Harmun, Nabi Musa, Judea Desert, West Bank, Palestinian Autonomy, Israel (31°46'N 35°26'E)

Evgeny V. Galuskin\*, Frank Gfeller, Thomas Armbruster, Irina O. Galuskina, Yevgeny Vapnik, Mikhail Murashko and Piotr Dzierżanowski

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

F analogue of mayenite

Cubic:  $I\bar{4}3d$ ; structure determined

$a = 11.9894(2)$  Å

4.895(92), 2.997(47), 2.681(100), 2.447(43), 2.189(41), 1.945(27), 1.663(33), 1.602(37)

Type material is deposited in the collections of the Museum of Natural History in Bern, Bernastrasse 5, CH-3005

Bern, Switzerland, catalogue number NMBE-42094

How to cite: Galuskin, E.V., Gfeller, F., Armbruster, T., Galuskina, I.O., Vapnik, Y., Murashko, M. and Dzierżanowski, P. (2013) Fluormayenite, IMA 2013-019. CNMNC Newsletter No. 16, August 2013, page 2705; *Mineralogical Magazine*, **77**, 2695–2709.

#### IMA No. 2013-020

Almeidaite



Unnamed deposit, Novo Horizonte, Bahia, Brazil (12°48'28"S 42°10'04"W)

Luiz A.D. Menezes Filho\*, Nikita V. Chukanov, Ramiza K. Rastsvetaeva, Sergey M. Aksenov, Igor V. Pekov, Mário L.S.C. Chaves, Ricardo Scholz, Daniel Atencio, Paulo R.G. Brandão, Antônio W. Romano, Luiz C.A. de Oliveira, José D. Ardisson, Klaus Krambrock, Roberto L. Moreira, Frederico S. Guimarães, Aba C. Persiano and R. Peter Richards

\*E-mail: lmenezesminerals@gmail.com

Crichtonite group

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

$a = 10.4359(2)$ ,  $c = 21.0471(4)$  Å

3.436(48), 3.074(50), 3.023(50), 2.907(100), 2.781(44), 2.492(55), 2.157(55), 1.615(50)

Type material is deposited in the collections of the Museu de Geociências, Instituto de Geociências, Universidade de São Paulo, São Paulo, Brazil, registration number DR744

How to cite: Luiz A.D. Menezes Filho, L.A.D., Chukanov, N.V., Rastsvetaeva, R.K., Aksenov, S.M., Pekov, I.V., Chaves, M.L.S.C., Scholz, R., Atencio, D., Brandão, P.R.G., Romano, A.W., de Oliveira, L.C.A., Ardisson, J.D., Krambrock, K., Moreira, R.L., Guimarães, F.S., Persiano, A.C. and Richards, R.P. (2013) Almeidaite, IMA 2013-020. CNMNC Newsletter No. 16, 2013, page 2705; *Mineralogical Magazine*, **77**, 2695–2709.

#### IMA No. 2013-021

Minjiangite



Nanping No. 31 pegmatite, Nanping, Fujian Province, People's Republic of China (118°06'E 26°40'N)

Rao Can\*, Frédéric Hatert, Wang Ru Cheng, Gu Xiang Ping, Dal Bo Fabrice and Dong Chuan Wan

\*E-mail: canrao@zju.edu.cn

Topologically similar to the structure of dmisteinbergite

Hexagonal:  $P6/mmm$ ; structure determined

$a = 5.030(8)$ ,  $c = 7.467(2)$  Å

3.763(100), 2.836(81), 2.515(32), 2.178(26), 2.162(19), 2.090(64), 1.770(16), 1.507(25)

Type material is deposited in the collections of the collections of the Geological Museum of China, Xisi, Beijing, People's Republic of China, catalogue number M11842

How to cite: Rao, C., Hatert, F., Wang, R.C., Gu, X.P., Dal, B.F. and Dong, C.W. (2013) Minjiangite, IMA 2013-021. CNMNC Newsletter No. 16, August 2013, page 2705; *Mineralogical Magazine*, **77**, 2695–2709.

#### IMA No. 2013-022

Ericlaxmanite

$\text{Cu}_4\text{O}(\text{AsO}_4)_2$

Arsenatnaya fumarole, Second scoria cone, Northern Breakthrough of the Great Tolbachik Fissure Eruption, Tolbachik volcano, Kamchatka peninsula, Far-Eastern Region, Russia (55°41'N 160°14'E)

Igor V. Pekov\*, Natalia V. Zubkova, Vasilii O. Yapaskurt, Dmitriy I. Belakovskiy, Marina F. Vigasina, Evgeny G. Sidorov and Dmitriy Y. Pushcharovskiy

\*E-mail: igorpekov@mail.ru

New structure type

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

$a = 6.4271(4)$ ,  $b = 7.6585(4)$ ,  $c = 8.2249(3)$  Å,  $\alpha = 98.396(4)$ ,  $\beta = 112.420(5)$ ,  $\gamma = 98.397(5)^\circ$   
3.868(46), 3.685(100), 3.063(71), 2.957(58), 2.777(98), 2.698(46), 2.449(37), 2.201(51)

Type material is deposited in the collections of the collections of the Fersman Mineralogical Museum of the Russian Academy of Sciences, Moscow, Russia, registration number 4387/1

How to cite: Pekov, I.V., Zubkova, N.V., Yapaskurt, V.O., Belakovskiy, D.I., Vigasina, M.F., Sidorov, E.G. and Pushcharovskiy, D.Y. (2013) Ericlaxmanite, IMA 2013-022. CNMNC Newsletter No. 16, August 2013, page 2706; *Mineralogical Magazine*, **77**, 2695–2709.

#### IMA No. 2013-023

Kozyrevskite

$\text{Cu}_4\text{O}(\text{AsO}_4)_2$

Arsenatnaya fumarole, Second scoria cone, Northern Breakthrough of the Great Tolbachik Fissure Eruption, Tolbachik volcano,

Kamchatka peninsula, Far-Eastern Region, Russia (55°41'N 160°14'E)

Igor V. Pekov\*, Natalia V. Zubkova, Vasilii O. Yapaskurt, Dmitriy I. Belakovskiy, Marina F. Vigasina, Evgeny G. Sidorov and Dmitriy Y. Pushcharovskiy

\*E-mail: igorpekov@mail.ru

Known synthetic compound

Orthorhombic:  $Pnma$ ; structure determined

$a = 8.2581(4)$ ,  $b = 6.4026(4)$ ,  $c = 13.8047(12)$  Å  
3.455(100), 3.194(72), 3.081(50), 2.910(69), 2.861(48), 2.732(82), 2.712(87), 2.509(92)

Type material is deposited in the collections of the collections of the Fersman Mineralogical Museum of the Russian Academy of Sciences, Moscow, Russia, registration number 4388/1

How to cite: Pekov, I.V., Zubkova, N.V., Yapaskurt, V.O., Belakovskiy, D.I., Vigasina, M.F., Sidorov, E.G. and Pushcharovskiy, D.Y. (2013) Kozyrevskite, IMA 2013-023. CNMNC Newsletter No. 16, August 2013, page 2706; *Mineralogical Magazine*, **77**, 2695–2709.

#### IMA No. 2013-024

Yeomanite

$\text{Pb}_2\text{O}(\text{OH})\text{Cl}$

Torr Works (Merehead) Quarry, East Cranmore, Somerset, England

R.W. Turner\*, O.I. Siidra, M.S. Rumsey, Y.S. Polekhovskiy, S.V. Krivovichev, Y.L. Kretser and C.J. Stanley

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

New structure type

Orthorhombic:  $Pnma$ ; structure determined

$a = 6.585(10)$ ,  $b = 3.855(6)$ ,  $c = 17.26(1)$  Å  
3.770(32), 3.293(61), 3.054(17), 2.880(100), 2.802(78), 2.166(22), 2.050(18), 1.662(19)

Type material is deposited in the collections of the collections of the Natural History Museum, London, UK, catalogue number BM 2013.5

How to cite: Turner, R.W., Siidra, O.I., Rumsey, M.S., Polekhovskiy, Y.S., Krivovichev, S.V., Kretser, Y.L. and Stanley, C.J. (2013) Yeomanite, IMA 2013-024. CNMNC Newsletter No. 16, August 2013, page 2706; *Mineralogical Magazine*, **77**, 2695–2709.

#### IMA No. 2013-025

Kaskasite

$(\text{Mo}, \text{Nb})\text{S}_2(\text{Mg}_{1-x}\text{Al}_x)(\text{OH})_{2+x}$

Mount Kaskasnyunchorr, Khibiny alkaline complex, Kola Peninsula, Russia

Igor V. Pekov\*, Vasily O. Yapaskurt, Yury S.

Polekhovskiy and Oleg I. Siidra

\*E-mail: igorpekov@mail.ru

Valleriite group

Trigonal:  $P\bar{3}m1$ ,  $P3m1$  or  $P321$

$a = 3.220(2)$ ,  $c = 11.47(2)$  Å

11.46(97), 5.72(100), 2.786(51), 2.627(7), 2.219(7), 1.613(33), 1.557(10)

Type material is deposited in the collections of the collections of the Fersman Mineralogical Museum of the Russian Academy of Sciences, Moscow, Russia, registration number 4401/1

How to cite: Pekov, I.V., Yapaskurt, V.O., Polekhovskiy, Y.S. and Siidra, O.I. (2013) Kaskasite, IMA 2013-025. CNMNC Newsletter No. 16, August 2013, page 2706; *Mineralogical Magazine*, **77**, 2695–2709.

#### IMA No. 2013-026

Manganokaskasite

$(\text{Mo,Nb})\text{S}_2 \cdot (\text{Mn}_{1-x}\text{Al}_x)(\text{OH})_{2+x}$

Mount Kaskasnyunchorr, Khibiny alkaline complex, Kola Peninsula, Russia

Igor V. Pekov\*, Vasily O. Yapaskurt and Yury S. Polekhovskiy

\*E-mail: igorpekov@mail.ru

Valleriite group

Trigonal:  $P\bar{3}m1$ ,  $P3m1$  or  $P321$

$a = 3.243(3)$ ,  $c = 11.61(1)$  Å

11.39(85), 5.66(100), 2.769(43), 2.663(25), 2.455(18), 1.608(23), 1.559(13)

Type material is deposited in the collections of the collections of the Fersman Mineralogical Museum of the Russian Academy of Sciences, Moscow, Russia, registration number 4402/1

How to cite: Pekov, I.V., Yapaskurt, V.O. and Polekhovskiy, Y.S. (2013) Manganokaskasite, IMA 2013-026. CNMNC Newsletter No. 16, 2013, page 2707; *Mineralogical Magazine*, **77**, 2695–2709.

#### IMA No. 2013-027

Tissintite

$(\text{Ca,Na},\square)\text{AlSi}_2\text{O}_6$

Tissint meteorite, which fell at Tissint, Tata, Morocco on 18 July 2011

Chi Ma\*, Yang Liu and Oliver Tschauner

\*E-mail: chi@gps.caltech.edu

Ca-analogue of jadeite

Monoclinic:  $C2/c$

$a = 9.418$ ,  $b = 8.562$ ,  $c = 5.219$  Å,  $\beta = 107.56^\circ$   
4.281(18), 2.917(100), 2.827(28), 2.825(41), 2.488(40), 2.482(18), 2.414(33), 1.966(19)

Type material is in Tissint sections UT1 and

UT2 deposited in the Meteorite Collection of the Frank H. McClung Museum at the University of Tennessee, Knoxville, Tennessee, USA

How to cite: Ma, C., Liu, Y. and Tschauner, O. (2013) Tissintite, IMA 2013-027. CNMNC Newsletter No. 16, August 2013, page 2707; *Mineralogical Magazine*, **77**, 2695–2709.

#### IMA No. 2013-028

Ahrensite

$\text{Fe}_2\text{SiO}_4$

Tissint meteorite, which fell at Tissint, Tata, Morocco on 18 July 2011

Chi Ma\*, Oliver Tschauner, Yang Liu and Stanislav Sinogeikin

\*E-mail: chi@gps.caltech.edu

Fe analogue of ringwoodite

Cubic:  $Fd\bar{3}m$ ; structure determined

$a = 8.1629(7)$  Å

2.461(100), 1.571(61), 1.443(62), 1.245(75), 1.178(62), 1.063(52), 1.020(77), 0.943(76)

Type material is in Tissint sections UT1 and UT2 deposited in the Meteorite Collection of the Frank H. McClung Museum at the University of Tennessee, Knoxville, Tennessee, USA

How to cite: Ma, C., Tschauner, O., Liu, Y. and Sinogeikin, S. (2013) Ahrensite, IMA 2013-028. CNMNC Newsletter No. 16, August 2013, page 2707; *Mineralogical Magazine*, **77**, 2695–2709.

#### IMA No. 2013-029

Hutcheonite

$\text{Ca}_3\text{Ti}_2(\text{SiAl}_2)\text{O}_{12}$

Allende CV3 meteorite

Chi Ma\* and Alexander N. Krot

\*E-mail: chi@gps.caltech.edu

Garnet group

Cubic:  $Ia\bar{3}d$

$a = 11.843$  Å

2.961(54), 2.648(100), 2.417(41), 1.642(27), 1.583(63), 1.292(18), 1.081(16), 0.806(30)

The type specimen is in section MQM803 in the G.J. Wasserburg Meteorite Collection of Division of Geological and Planetary Sciences, California Institute of Technology, Pasadena, California, USA

How to cite: Ma, C. and Krot, A.N. (2013) Hutcheonite, IMA 2013-029. CNMNC Newsletter No. 16, August 2013, page 2707; *Mineralogical Magazine*, **77**, 2695–2709.

## IMA No. 2013-030

Qingsongite

BN

Chromite deposit 31, Luobusa ophiolite, Yarlung Zangbu suture, southern Tibet, China (29°13.86'N 92°11.41'E)

Larissa F. Dobrzhinetskaya\*, Richard Wirth, Jingsui Yang, Harry W. Green, Ian D. Hutcheon, Peter K. Weber and Edward S. Grew

\*E-mail: larissa@ucr.edu

Sphalerite structure type

Cubic:  $F\bar{4}3m$

$a = 3.61 \text{ \AA}$

2.088(100), 1.808(8), 1.277(20), 1.090(10), 0.904(3), 0.830(8)

Type material is deposited in the collections of the Geological Museum of China, Xisi, West District, Beijing, PRC, catalogue number M 11843

How to cite: Dobrzhinetskaya, L.F., Wirth, R., Yang, J., Green, H.W., Hutcheon, I.D., Weber, P.K. and Grew, E.S. (2013) Qingsongite, IMA 2013-030. CNMNC Newsletter No. 16, August 2013, page 2708; *Mineralogical Magazine*, **77**, 2695–2709.

## IMA No. 2013-031

Zadovite

$\text{BaCa}_6[(\text{SiO}_4)(\text{PO}_4)](\text{PO}_4)_2\text{F}$

Gurim anticline (Hatrumim Basin), Arad, Negev Desert, Israel (31°09'N 35°17'E)

Evgeny V. Galuskin\*, Frank Gfeller, Irina O. Galuskina, Thomas Armbruster, Yevgeny Vapnik, Roman Włodyka, Piotr Dzierzanowski and Mikhail Murashko

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

New structure type

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

$a = 7.0966(1)$ ,  $c = 25.7284(3) \text{ \AA}$

3.548(65), 3.279(60), 3.154(66), 3.051(74), 2.859(47), 2.734(100), 1.973(41), 1.774(56)

Type material is deposited in the collections of the Museum of Natural History in Bern, Bernastrasse 5, CH-3005 Bern, Switzerland, catalogue number NMBE 4210

How to cite: Galuskin, E.V., Gfeller, F., Galuskina, I.O., Armbruster, T., Vapnik, Y., Włodyka, R., Dzierzanowski, P. and Murashko, M. (2013) Zadovite, IMA 2013-031. CNMNC Newsletter No. 16, August 2013, page 2708; *Mineralogical Magazine*, **77**, 2695–2709.

## IMA No. 2013-032

Gurimite

$\text{Ba}_3(\text{VO}_4)_2$

Gurim anticline (Hatrumim Basin), Arad, Negev Desert, Israel (31°09'N 35°17'E)

Irina O. Galuskina\*, Yevgeny Vapnik, Krystian Prusik, Piotr Dzierzanowski, Mikhail Murashko and Evgeny V. Galuskin

\*E-mail: irina.galuskina@us.edu.pl

Well known synthetic phase

Trigonal:  $R\bar{3}m$

$a = 5.784(1)$ ,  $c = 21.132(1) \text{ \AA}$

3.243(100), 2.891(79), 2.265(19), 2.158(48), 1.959(25), 1.729(26), 1.445(15), 1.414(16)

Type material is deposited in the collections of the Museum of Natural History in Bern, Bernastrasse 5, CH-3005 Bern, Switzerland, catalogue number NMBE 4210

How to cite: Galuskina, I.O., Vapnik, Y., Prusik, K., Dzierzanowski, P., Murashko, M. and Galuskin, E.V. (2013) Gurimite, IMA 2013-032. CNMNC Newsletter No. 16, August 2013, page 2708; *Mineralogical Magazine*, **77**, 2695–2709.

## IMA No. 2013-033

Yurmarinite

$\text{Na}_7(\text{Fe}^{3+}, \text{Mg}, \text{Cu})_4(\text{AsO}_4)_6$

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)

Igor V. Pekov\*, Natalia V. Zubkova, Vasiliy O. Yapaskurt, Dmitriy I. Belakovskiy, Inna S. Lykova, Marina F. Vigasina, Evgeny G. Sidorov and Dmitry Y. Pushcharovsky

\*E-mail: igorpekov@mail.ru

New structure type

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

$a = 13.7444(2)$ ,  $c = 18.3077(3) \text{ \AA}$

7.28(45), 4.375(33), 3.440(35), 3.217(36), 2.999(30), 2.841(100), 2.696(29), 2.598(43)

Type material is deposited in the collections of the Fersman Mineralogical Museum of the Russian Academy of Sciences, Moscow, Russia, registration number 4389/1

How to cite: Pekov, I.V., Zubkova, N.V., Yapaskurt, V.O., Belakovskiy, D.I., Lykova, I.S., Vigasina, M.F., Sidorov, E.G. and Pushcharovsky, D.Y. (2013) Yurmarinite, IMA 2013-033. CNMNC Newsletter No. 16, August 2013, page 2708; *Mineralogical Magazine*, **77**, 2695–2709.

**NEW MINERAL APPROVALS WITHDRAWN  
IN JANUARY 2013****IMA No. 2009-088**

Chromo-alumino-povondraite

Susequent analytical work undertaken by the authors show this material to be a chromdravite.

**NEW MINERAL APPROVALS Withdrawn in  
APRIL 2013****IMA No. 2011-096**

Fuxiaotuite

Approval for the **name** of this mineral has been withdrawn. The mineral itself retains its previous approval.

**APPROVED NOMENCLATURE CHANGES IN  
FEBRUARY 2013****IMA No. 2011-035**

Ferrickaersutite

The proposal 2011-035 was approved in 2011 (see CNMNC Newsletter 10). **The approved name has been changed to oxo-magnesian-hastingsite**, to be consistent with the new amphibole nomenclature. The endmember formula of oxo-magnesian-hastingsite is  $\text{NaCa}_2(\text{Mg}_2\text{Fe}_3^{3+})(\text{Si}_6\text{Al}_2)\text{O}_{22}\text{O}_2$ .

**NOMENCLATURE PROPOSAL APPROVED  
IN MARCH 2013****IMA 13-A: A new root-name for the amphibole  
composition  $\square\text{Mn}_2^{2+}\text{Fe}_5^{2+}\text{Si}_8\text{O}_{22}(\text{OH})_2$** 

In the newly-approved amphibole report, the use of the prefix mangano- for  $\text{Mn}^{2+}$  dominant as the B cation has been abolished. Accordingly, the mineral with endmember composition  $\text{Mn}_2^{2+}\text{Fe}_5^{2+}\text{Si}_8\text{O}_{22}(\text{OH})_2$ , formerly described as proto-mangano-ferro-anthophyllite (IMA No. 1986-007), and mentioned as “ferro-rootname3” in the amphibole report, deserves a new root name. The composition  $\text{Mn}_2^{2+}\text{Mg}_5\text{Si}_8\text{O}_{22}(\text{OH})_2$ , mentioned as “rootname3” in the amphibole report, is now assigned the name **suenoite**, in memory of the late Professor Shigeho Sueno (d. 2001), who described the new mineral IMA No. 1986-037; this now becomes proto-ferro-suenoite. The proto- and ferro- prefixes are for the *Pnmn* symmetry and for the  $\text{Fe}^{2+}$  dominance among C cations, respectively.

**NOMENCLATURE PROPOSAL APPROVED  
IN MAY 2013****IMA 13-B: Revision of the chemical  
formula of comancheite**

On the basis of a single crystal X-ray diffraction study, it has been shown that the accepted chemical formula of the mineral comancheite is incorrect. Comancheite was described in 1981 as a mercury oxychloride-bromide with formula  $\text{Hg}_{13}(\text{Cl},\text{Br})_8\text{O}_9$ . It is in fact a mercury nitride with formula  $\text{Hg}_{55}^{2+}\text{N}_{24}^{3-}(\text{NH}_2,\text{OH})_4(\text{Cl},\text{Br})_{34}$ .