

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

NEWSLETTER 17

New minerals and nomenclature modifications approved in 2013

P. A. WILLIAMS¹ (Chairman, CNMNC), F. HATERT² (Vice-Chairman, CNMNC), M. PASERO³ (Vice-Chairman, CNMNC) AND S. J. MILLS⁴ (Secretary, CNMNC)

¹ School of Science and Health, University of Western Sydney, Locked Bag 1797, Penrith, NSW 2751, Australia – p.williams@uws.edu.au

² Laboratoire de Minéralogie, Université de Liège, B-4000 Liège, Belgium – fhatert@ulg.ac.be

³ Dipartimento di Scienze della Terra, Università degli Studi di Pisa, Via Santa Maria 53, I-56126 Pisa, Italy – pasero@dst.unipi.it

⁴ Geosciences, Museum Victoria, PO Box 666, Melbourne, Victoria 3001, Australia – smills@museum.vic.gov.au

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
JULY 2013

IMA No. 2013-034

Iwateite



No. 3 (Matsumaezawa) ore body, Tanohata mine, Tanohata, Iwate Prefecture, Japan

Daisuke Nishio-Hamane*, Tetsuo Minakawa and Hanako Okada

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

Known synthetic compound

Trigonal: $P\bar{3}$ $a = 5.3642(10)$, $c = 7.039(2)$ Å

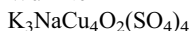
7.032(39), 4.646(67), 3.877(48), 2.807(100), 2.683(74), 2.506(46), 1.939(91), 1.571(33)

Type material is deposited in the collections of the National Museum of Nature and Science, Tsukuba, Japan, specimen number NSM-M43779

How to cite: Nishio-Hamane, D., Minakawa, T. and Okada, H. (2013) Iwateite, IMA 2013-034. CNMNC Newsletter No. 17, October 2013, page 2998; *Mineralogical Magazine*, 77, 2997–3005.

IMA No. 2013-035

Wulffite



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, Nikita V. Chukanov, Inna S. Lykova, Evgeny G. Sidorov and Dmitry Y. Pushcharovsky

*E-mail: igorpekov@mail.ru

New structure type related to parawulffite

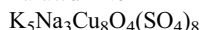
Orthorhombic: $Pn2_1a$; structure determined $a = 14.2810(6)$, $b = 4.9478(2)$, $c = 24.113(1)$ Å
9.27(100), 7.16(22), 3.125(16), 2.882(16), 2.780(33), 2.725(14), 2.472(20), 2.366(13)

Type material is deposited in the collections of the Fersman Mineralogical Museum of the Russian Academy of Sciences, Moscow, Russia, registration number 4385/1

How to cite: Pekov, I.V., Zubkova, N.V., Yapaskurt, V.O., Belakovskiy, D.I., Chukanov, N.V., Lykova, I.S., Sidorov, E.G. and Pushcharovsky, D.Y. (2013) Wulffite, IMA 2013-035. CNMNC Newsletter No. 17, October 2013, page 2998; *Mineralogical Magazine*, 77, 2997–3005.

IMA No. 2013-036

Parawulffite



Yadovitaya (Poisonous) 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, Nikita V. Chukanov, Inna S. Lykova, Evgeny G. Sidorov and Dmitry Y. Pushcharovsky

*E-mail: igorpekov@mail.ru

New structure type related to wulffite

Monoclinic: $P2/c$; structure determined $a = 13.904(1)$, $b = 4.9765(3)$, $c = 23.586(2)$ Å, $\beta = 90.209(6)^\circ$

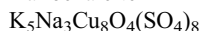
9.06(100), 7.00(23), 5.903(12), 3.096(31), 2.736(33), 2.674(11), 2.492(24), 2.321(26)

Type material is deposited in the collections of the Fersman Mineralogical Museum of the Russian Academy of Sciences, Moscow, Russia, registration number 4386/1

How to cite: Pekov, I.V., Zubkova, N.V., Yapaskurt, V.O., Belakovskiy, D.I., Chukanov, N.V., Lykova, I.S., Sidorov, E.G. and Pushcharovsky, D.Y. (2013) Parawulffite, IMA 2013-036. CNMNC Newsletter No. 17, October 2013, page 2998; *Mineralogical Magazine*, 77, 2997–3005.

IMA No. 2013-037

Kaliochalcite



Yadovitaya (Poisonous) 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*, Oleg I. Siidra, Nikita V. Chukanov, Vasilii O. Yapaskurt, Dmitriy I. Belakovskiy, Michael E. Zelenski, Mikhail N. Murashko and Evgeny G. Sidorov

*E-mail: igorpekov@mail.ru

K analogue of natrochalcite

Monoclinic: $C2/m$; structure determined $a = 8.935(2)$, $b = 6.252(2)$, $c = 7.602(2)$ Å,
 $\beta = 117.318(5)^\circ$

6.78(100), 3.484(70), 3.249(63), 2.892(77), 2.852(83), 2.554(72), 2.326(44), 1.693(37)

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

Russia, registration number 4154/1
How to cite: Pekov, I.V., Siidra, O.I., Chukanov, N.V., Yapaskurt, V.O., Belakovskiy, D.I., Zelenski, M.E., Murashko, M.N. and Sidorov, E.G. (2013) Kaliochalcite, IMA 2013-037. CNMNC Newsletter No. 17, October 2013, page 2998; *Mineralogical Magazine*, **77**, 2997–3005.

IMA No. 2013-038

Innsbruckite
 $\text{Mn}_{33}(\text{Si}_2\text{O}_5)_{14}(\text{OH})_3$
Staffelsee, Geier, Wattener Lizum, Tyrol, Austria
Hannes Krüger*, Peter Tropper, Udo Haefeker, Martina Tribus, Volker Kahlenberg, Christoph Wikete, Martin Fuchs and Vincent Olieric
*E-mail: Hannes.Krueger@uibk.ac.at
New structure type
Monoclinic: Cm ; structure determined
 $a = 17.276(2)$, $b = 35.957(5)$, $c = 7.2560(8)$ Å, $\beta = 91.359(7)^\circ$
7.254(100), 3.627(29), 3.549(15), 3.516(16), 2.657(77), 2.654(44), 2.250(32), 1.655(19)
Type material is deposited in the collections of the Naturhistorisches Museum Wien, Vienna, Austria, registration number N9580
How to cite: Krüger, H., Tropper, P., Haefeker, U., Tribus, M., Kahlenberg, V., Wikete, C., Fuchs, M. and Olieric, V. (2013) Innsbruckite, IMA 2013-038. CNMNC Newsletter No. 17, October 2013, page 2999; *Mineralogical Magazine*, **77**, 2997–3005.

IMA No. 2013-039

Meisserite
 $\text{Na}_5(\text{UO}_2)(\text{SO}_4)_3(\text{SO}_3\text{OH})(\text{H}_2\text{O})$
Blue Lizard Mine, Red Canyon, White Canyon District, San Juan County, Utah, USA (37°33'26N 110°17'44W)
Jakub Plášil*, Anthony R. Kampf, Anatoly V. Kasatkin, Steve Silva, Joe Marty, Radek Škoda and Jiří Čejka
*E-mail: plasil@fzu.cz
New structure type
Triclinic: $P\bar{1}$; structure determined
 $a = 5.3232(1)$, $b = 11.5105(2)$, $c = 13.5562(10)$ Å, $\alpha = 102.864(7)$, $\beta = 97.414(7)$, $\gamma = 91.461(6)^\circ$
13.15(81), 6.33(62), 5.64(52), 5.24(100), 4.67(68), 3.849(48), 2.969(93), 1.918(47)
Type material is deposited in the collections of the the Fersman Mineralogical Museum of the Russian Academy of Sciences, Moscow, Russia,

registration number 4410/1, the Natural History Museum of Los Angeles County, Los Angeles, California, USA, catalogue number 64055, and the Musée Géologique, UNIL-Anthropole, Lausanne, Switzerland, specimen number MGL 92960

How to cite: Plášil*, J., Kampf, A.R., Kasatkin, A.V., Silva, S., Marty, J., Škoda R. and Čejka, J. (2013) Meisserite, IMA 2013-039. CNMNC Newsletter No. 17, October 2013, page 2999; *Mineralogical Magazine*, **77**, 2997–3005.

IMA No. 2013-040

Karpovite
 $\text{Tl}_2\text{VO}(\text{SO}_4)_2(\text{H}_2\text{O})$
North breach of the Great Fissure Tolbachik eruption (1975-1976), Kamchatka Peninsula, Russia
Lidiya P. Vergasova, Oleg I. Siidra*, Yuri L. Kretser, Yuri S. Polekhovskiy, Stanislav K. Filatov and Sergey V. Krivovichev
*E-mail: siidra@mail.ru
New structure type
Monoclinic: $P2_1$; structure determined
 $a = 4.6524(4)$, $b = 11.0757(9)$, $c = 9.3876(7)$ Å, $\beta = 98.353(2)^\circ$
4.289(64), 4.253(81), 3.683(38), 3.557(47), 3.438(100), 2.982(52), 2.945(59), 2.354(54)
Type material is deposited in the collections of the the Mineralogical Museum, Department of Mineralogy, St Petersburg State University, St Petersburg, Russia, specimen number 1/19543
How to cite: Vergasova, L.P., Siidra, O.I., Kretser, Y.L., Polekhovskiy, Y.S., Filatov, S.K. and Krivovichev, S.V. (2013) Karpovite, IMA 2013-040. CNMNC Newsletter No. 17, October 2013, page 2999; *Mineralogical Magazine*, **77**, 2997–3005.

IMA No. 2013-041

Evdokimovite
 $\text{Tl}_2\text{VO}(\text{SO}_4)_2(\text{H}_2\text{O})$
North breach of the Great Fissure Tolbachik eruption (1975-1976), Kamchatka Peninsula, Russia
Oleg I. Siidra*, Lidiya P. Vergasova, Yuri L. Kretser, Yuri S. Polekhovskiy, Sergey V. Krivovichev and Stanislav K. Filatov
*E-mail: siidra@mail.ru
New structure type
Monoclinic: $P2_1/n$; structure determined
 $a = 6.2958(14)$, $b = 10.110(2)$, $c = 39.426(11)$ Å, $\beta = 90.347(6)^\circ$

9.793(57), 8.014(100), 6.580(26), 4.011(19), 3.621(29), 3.522(44), 3.010(19), 2.974(21)

Type material is deposited in the collections of the the Mineralogical Museum, Department of Mineralogy, St Petersburg State University, St Petersburg, Russia, specimen number 1/19542
How to cite: Siidra, O.I., Vergasova, L.P., Kretser, Y.L., Polekhovsky, Y.S., Krivovichev, S.V. and Filatov, S.K. (2013) Evdokimovite, IMA 2013-041. CNMNC Newsletter No. 17, October 2013, page 2999; *Mineralogical Magazine*, 77, 2997–3005.

IMA No. 2013-042

Oxyplumboroméite

Pb₂Sb₂O₇

Harstigen mine, Pajsberg, Filipstad, Värmland, Sweden (59.60°N 14.23°E)

Ulf Hålenius* and Ferdinando Bosi

*E-mail: ulf.halenius@nrm.se

Pyrochlore supergroup

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

$a = 10.3783(6) \text{ \AA}$

2.992(100), 2.593(32), 1.833(48), 1.564(38),

1.498(11), 1.190(12), 1.160(9), 1.059(8)

Type material is deposited in the collections of the the Swedish Museum of Natural History, Stockholm, Sweden, catalogue number g22779
How to cite: Hålenius, U. and Bosi, F. (2013) Oxyplumboroméite, IMA 2013-042. CNMNC Newsletter No. 17, October 2013, page 3000; *Mineralogical Magazine*, 77, 2997–3005.

IMA No. 2013-043

Fluorkyuygenite

Ca₁₂Al₁₄O₃₂[(H₂O)₄F₂]

Arad, Negev Desert, Israel (31°12'45''N 35°14'43''E)

Evgeny V. Galuskin*, Frank Gfeller, Thomas Armbruster, Victor V. Sharygin, Irina O. Galuskina, Sergey V. Krivovichev, Yevgeny Vapnik, Mikhail Murashko, Piotr Dzierżanowski and Richard Wirth

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

Mayenite group

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

$a = 11.966(2) \text{ \AA}$

4.885(41), 3.198(46), 2.992(61), 2.676(100),

2.443(45), 2.185(32), 1.659(27), 1.599(26)

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: Galuskin, E.V., Gfeller, F., Armbruster, T., Sharygin, V.V., Galuskina, I.O., Krivovichev, S.V., Vapnik, Y., Murashko, M., Dzierżanowski, P. and Wirth, R. (2013) Fluorkyuygenite, IMA 2013-043. CNMNC Newsletter No. 17, October 2013, page 3000; *Mineralogical Magazine*, 77, 2997–3005.

IMA No. 2013-044

Falottaite

MnC₂O₄·3H₂O

Falotta mine, Oberhalbstein, Canton Grisons, Switzerland

Stefan Graeser* and Walter Gabriel

*E-mail: stefan.graeser@unibas.ch

Known synthetic phase

Orthorhombic: *Pcca*

$a = 10.527(5)$, $b = 6.626(2)$, $c = 9.783(6) \text{ \AA}$

6.630(100), 6.630(60), 3.801(90), 3.153(80),

2.959(60), 2.697(60), 2.622(70), 2.122(60)

Type material is deposited in the collections of the Natural History Museum Basel, Basel, Switzerland, specimen number S69

How to cite: Graeser, S. and Gabriel, W. (2013) Falottaite, IMA 2013-044. CNMNC Newsletter No. 17, October 2013, page 3000; *Mineralogical Magazine*, 77, 2997–3005.

IMA No. 2013-045

(Be,□)(V³⁺,Ti)₃O₆

Byrud farm, near Minnesund, Eidsvoll municipality, Akershus County, Norway (60°24'48''N 11°11'52''E)

Gunnar Raade*, Tonči Balić-Žunić and Chris J. Stanley

*E-mail: gunn-ra@online.no

Related to kyzylkumite and tivanite

Orthorhombic: *Pnma*; structure determined

$a = 9.982(1)$, $b = 8.502(1)$, $c = 4.5480(6) \text{ \AA}$

4.15(w), 3.72(m), 2.96(s), 2.57(w), 2.48(vw),

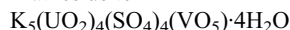
2.17(w), 1.68(s), 1.43(w)

Type material is deposited in the collections of the Natural History Museum, University of Oslo, Norway, catalogue number 43570

How to cite: Raade, G., Balić-Žunić, T. and Stanley, C.J. (2013) IMA 2013-045. CNMNC Newsletter No. 17, October 2013, page 3000; *Mineralogical Magazine*, 77, 2997–3005.

IMA No. 2013-046

Mathesiusite



Geschieber vein, Svornost (Einigkeit) mine, Jáchymov district, Western Bohemia, Czech Republic

Jakub Plášil*, František Veselovský, Jan Hloušek, Radek Škoda, Milan Novák, Jiří Sejkora, Jiří Čejka, Pavel Škácha and Anatoly V. Kasatkin

*E-mail: plasil@fzu.cz

New structure type

Tetragonal: $P4/n$; structure determined
 $a = 14.9704(10), c = 6.8170(5) \text{ \AA}$
 $10.599(100), 6.907(41), 6.270(5), 5.295(32), 4.760(2), 4.739(12), 3.351(2), 3.216(2)$

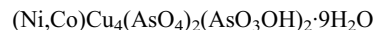
Type material is deposited in the collections of the Department of Mineralogy and Petrology of the National Museum in Prague, Prague, Czech Republic, catalogue number PIP 7/2013

How to cite: Plášil, J., Veselovský, F., Hloušek, J., Škoda, R., Novák, M., Sejkora, J., Čejka, J., Škácha, P. and Kasatkin, A.V. (2013) Mathesiusite, IMA 2013-046. CNMNC Newsletter No. 17, October 2013, page 3001; *Mineralogical Magazine*, 77, 2997–3005.

No. 17, October 2013, page 3001; *Mineralogical Magazine*, 77, 2997–3005.

IMA No. 2013-048

Hloušekite



Geister vein, Rovnost (Werner) mine, Jáchymov, Bohemia, Czech Republic

Jakub Plášil*, Pavel Škácha, Jiří Sejkora, Milan Novák, František Veselovský, Radek Škoda, Jiří Čejka, Petr Ondruš and Anatoly Kasatkin

*E-mail: plasil@fzu.cz

Lindackerite group

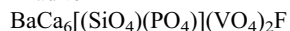
Triclinic: $P\bar{1}$; structure determined
 $a = 6.4010(6), b = 8.0041(6), c = 10.3969(14),$
 $\alpha = 85.824(8), \beta = 79.873(9), \gamma = 84.655(7)^\circ$
 $10.211(100), 7.974(9), 3.984(6), 3.656(5), 3.631(5), 3.241(5), 3.145(5), 3.006(5)$

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 3/2013

How to cite: Plášil, J., Škácha, P., Sejkora, J., Novák, M., Veselovský, F., Škoda, R., Čejka, J., Ondruš, P. and Kasatkin, A. (2013) Hloušekite, IMA 2013-048. CNMNC Newsletter No. 17, October 2013, page 3001; *Mineralogical Magazine*, 77, 2997–3005.

NEW MINERAL PROPOSALS APPROVED IN AUGUST 2013**IMA No. 2013-047**

Aradite



Gurim Anticline, the Hatrurim Basin, Arad, Negev Desert, Israel (31°09'N 35°17'E)

Evgeny V. Galuskin*, Irina O. Galuskina, Anna Pakhomova, Thomas Armbruster, Yevgeny Vapnik, Piotr Dzierżanowski and Mikhail Murashko

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

V analogue of zadovite

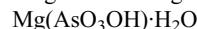
Trigonal: $R\bar{3}m$; structure determined
 $a = 7.1300(1), c = 26.2033(9) \text{ \AA}$
 $8.734(32), 6.010(33), 3.565(100), 3.301(48), 3.201(40), 3.066(32), 2.762(85), 1.783(32)$

Type material is deposited in the collections of the Museum of Natural History in Bern, Bern, Switzerland, catalogue number NMBE-42188

How to cite: Galuskin, E.V., Galuskina, I.O., Pakhomova, A., Armbruster, T., Vapnik, Y., Dzierżanowski, P. and Murashko, M. (2013) Aradite, IMA 2013-047. CNMNC Newsletter

IMA No. 2013-049

Magnesiokoritnigite



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

Anthony R. Kampf*, Barbara Nash and Maurizio Dini

*E-mail: akampf@nhm.org

Mg analogue of koritnigite

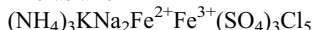
Triclinic: $P\bar{1}$; structure determined
 $a = 7.8702(7), b = 15.8081(6), c = 6.6389(14) \text{ \AA},$
 $\alpha = 90.814(6), \beta = 96.193(6), \gamma = 90.094(7)^\circ$
 $7.96(100), 4.80(54), 3.791(85), 3.242(56), 3.157(92), 3.021(61), 2.798(51), 1.908(43)$

Type material is deposited in the collections of the Natural History Museum of Los Angeles County, Los Angeles, California, USA, catalogue numbers 64057, 64058 and 64059

How to cite: Kampf, A.R., Nash, B. and Dini, M. (2013) Magnesiokoritnigite, IMA 2013-049. CNMNC Newsletter No. 17, October 2013, page 3001; *Mineralogical Magazine*, 77, 2997–3005.

IMA No. 2013-050

Therasiaite



La Fossa crater, Vulcano, Aeolian Islands, Italy
 Francesco Demartin*, Italo Campostrini and
 Carlo Castellano

*E-mail: francesco.demartin@unimi.it

New structure type

Monoclinic: *Cc*; structure determined

$a = 18.284(4), b = 12.073(2), c = 9.535(2) \text{ \AA}$

$\beta = 108.10(1)^\circ$

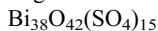
$3.297(28), 3.208(14), 3.008(12), 2.942(11),$
 $2.812(100), 2.749(9), 2.664(77)$

Type material is deposited in the Reference
 Collection of the Dipartimento di Chimica,
 University of Milan, Milan, Italy, sample
 number 2013-01

How to cite: Demartin, F., Campostrini, I. and
 Castellano, C. (2013) Therasiaite, IMA 2013-
 050. CNMNC Newsletter No. 17, October 2013,
 page 3002; *Mineralogical Magazine*, **77**,
 2997–3005.

IMA No. 2013-051

Leguernite



La Fossa crater, Vulcano, Aeolian Islands, Italy
 Anna Garavelli*, Daniela Pinto, Luca Bindi and
 Donatella Mitolo

*E-mail: anna.garavelli@uniba.it

New Aurivillius phase

Monoclinic: *P2*; structure determined

$a = 11.2486(11), b = 5.6568(6), c = 11.9139(10) \text{ \AA}$

$\beta = 99.177(7)^\circ$

$5.040(15), 3.220(100)$; coincides with a strong
peak of anglesite, $d = 3.223 \text{ \AA}$, $3.100(95)$,
 $2.931(25)$, $2.830(30)$, $2.502(25)$, $2.035(20)$,
 $1.875(20)$

Type material is deposited in the collections of
 the C.L. Garavelli Museum in the Dipartimento
 di Scienze della Terra e Geoambientali,
 Università degli Studi di Bari “Aldo Moro”,
 Italy, sample number 18/nm-V28

How to cite: Garavelli, A., Pinto, D., Bindi, L.
 and Mitolo, D. (2013) Leguernite, IMA 2013-
 051. CNMNC Newsletter No. 17, October 2013,
 page 3002; *Mineralogical Magazine*, **77**,
 2997–3005.

**NEW MINERAL PROPOSALS APPROVED IN
SEPTEMBER 2013****IMA No. 2013-052**

Steedeite



Poudrette quarry, Mont Saint-Hilaire, Rouville
 RMC, Montérégie County, Quebec, Canada

Monika M. Haring* and Andrew M. McDonald

*E-mail: mx_haring@laurentian.ca

New structure type

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

$a = 6.837(1), b = 7.575(2), c = 8.841(2) \text{ \AA}$, $\alpha =$
 $99.91(3), \beta = 102.19(3), \gamma = 102.78(3)^\circ$

$8.454(100), 7.234(39), 3.331(83), 3.081(38),$
 $2.859(52), 2.823(80), 2.477(21), 2.169(25)$

Type material is deposited in the collections of
 the Royal Ontario Museum, Queen’s Park,
 Toronto, Ontario, Canada, catalogue number
 M56489

How to cite: Haring, M.M. and McDonald, A.M.
 (2013) Steedeite, IMA 2013-052. CNMNC
 Newsletter No. 17, October 2013, page 3002;
Mineralogical Magazine, **77**, 2997–3005.

IMA No. 2013-053

Paqueite



Allende CV3 meteorite

Chi Ma

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

 $\text{Ca}_3\text{Ga}_2\text{Ge}_4\text{O}_{14}$ structure typeTrigonal: *P321*

$a = 7.943, c = 4.930 \text{ \AA}$

$6.879(20), 3.093(100), 2.821(50), 2.821(68),$
 $2.600(21), 2.300(43), 1.908(17), 1.789(28)$

Type material is deposited in the collections of
 the Smithsonian Institution’s National Museum
 of Natural History, Washington DC, USA,
 registration number USNM 7617

How to cite: Ma, C. (2013) Paqueite, IMA 2013-
 053. CNMNC Newsletter No. 17, October 2013,
 page 3002; *Mineralogical Magazine*, **77**,
 2997–3005.

IMA No. 2013-054

Burnettite



Allende CV3 meteorite

Chi Ma

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

Diopside group

Monoclinic: *C2/c*

$a = 9.80$, $b = 8.85$, $c = 5.36 \text{ \AA}$, $\beta = 105.62^\circ$
2.996(100), 2.964(33), 2.909(20), 2.581(41),
2.560(29), 2.535(47), 2.131(19), 1.650(17)

Type material is deposited in the collections of the Smithsonian Institution's National Museum of Natural History, Washington DC, USA, registration number USNM 7617

How to cite: Ma, C. (2013) Burnettite, IMA 2013-054. CNMNC Newsletter No. 17, October 2013, page 3002; *Mineralogical Magazine*, **77**, 2997–3005.

IMA No. 2013-055

Fluorcalciopyrochlore

$(\text{Ca}, \text{Na})_2(\text{Nb}, \text{Ti})_2\text{O}_6\text{F}$

Bayan Obo mine, 130 km north of Baotou City, Inner Mongolian Autonomous Region, China (41°47'45"N 109°58'10"E)

Li Guowu*, Yang Guangming, Lu Fude, Xiong Ming, Ge Xiangkun and Pan Baoming

*E-mail: liguowu@126.com

Pyrochlore supergroup

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

$a = 10.4164(9) \text{ \AA}$

6.041(9), 3.018(100), 2.613(17), 1.844(29), 1.571(15), 1.504(2), 1.303(2), 1.197(2)

Type material is deposited in the collections of the Laboratory of Crystal Structure, Scientific Research Institute, China University of Geosciences, Beijing, 100083, China, catalogue number XI-81

How to cite: Li Guowu, Yang Guangming, Lu Fude, Xiong Ming, Ge Xiangkun and Pan Baoming (2013) Fluorcalciopyrochlore, IMA 2013-055. CNMNC Newsletter No. 17, October 2013, page 3003; *Mineralogical Magazine*, **77**, 2997–3005.

IMA No. 2013-056

Fluornatropyrochlore

$(\text{Na}, \text{Pb}, \text{Ca}, \text{REE}, \text{U})_2\text{Nb}_2\text{O}_6\text{F}$

Maoniuping rare earth deposit, Mianning County, Sichuan Province, China (28°27'29.89"N 101°58'46.93"E)

Yin Jingwu, Li Guowu*, Yang Guangming, Xiong Ming, Ge Xiangkun and Pan Baoming

*E-mail: liguowu@126.com

Pyrochlore supergroup

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

$a = 10.5053(10) \text{ \AA}$

6.074(3), 3.042(100), 2.628(38), 1.857(34), 1.582(15), 1.515(4), 1.314(2), 1.205(3)

Type material is deposited in the collections of

the Laboratory of Crystal Structure, Scientific Research Institute, China University of Geosciences, Beijing, 100083, China, catalogue number MNP-X-2

How to cite: Yin Jingwu, Li Guowu*, Yang Guangming, Xiong Ming, Ge Xiangkun and Pan Baoming (2013) Hydroxyplumbopyrochlore, IMA 2013-056. CNMNC Newsletter No. 17, October 2013, page 3003; *Mineralogical Magazine*, **77**, 2997–3005.

IMA No. 2013-058

Arsiccioite

$\text{AgHg}_2\text{Tl}(\text{As}, \text{Sb})_2\text{S}_6$

Monte Arsiccio mine, Stazzema, Apuan Alps, Tuscany, Italy (43°58'N 10°17'E)

Cristian Biagioni*, Elena Bonaccorsi, Yves Moëlo, Paolo Orlandi, Luca Bindi, Massimo D'Orazio and Simone Vezzoni

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

Ag derivative of routhierite

Tetragonal: $I\bar{4}2m$; structure determined

$a = 10.1386(6)$, $c = 11.3441(5) \text{ \AA}$

5.04(28), 4.195(98), 3.542(42), 3.025(100), 2.730(17), 2.636(26), 2.518(35), 2.055(14)

Type material is deposited in the collections of the Museo di Storia Naturale, Università di Pisa, Via Roma 79, Calci (Pisa), Italy, catalogue number 19659, and the Museo di Storia Naturale, Università degli Studi di Firenze, Florence, Italy, catalogue number 3132/I

How to cite: Biagioni, C., Bonaccorsi, E., Moëlo, Y., Orlandi, P., Bindi, L., D'Orazio, M. and Vezzoni, S. (2013) Arsiccioite, IMA 2013-058. CNMNC Newsletter No. 17, October 2013, page 3003; *Mineralogical Magazine*, **77**, 2997–3005.

IMA No. 2013-060

Popovite

$\text{Cu}_5\text{O}_2(\text{AsO}_4)_2$

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, Vasilii O. Yapaskurt, Dmitriy I. Belakovskiy, Marina F. Vigasina, Evgeny G. Sidorov and Dmitriy Y. Pushcharovsky

*E-mail: igorpekov@mail.ru

New structure type

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

$a = 5.1450(3)$, $b = 6.2557(3)$, $c = 6.2766(4)$ Å,
 $\alpha = 100.064(5)$, $\beta = 96.351(5)$, $\gamma = 95.100(5)^\circ$
 3.715(36), 3.465(43), 2.968(90), 2.927(100),
 2.782(31), 2.768(67), 2.513(55), 2.462(67)

Type material is deposited in the collections of the Fersman Mineralogical Museum of the Russian Academy of Sciences, Moscow, Russia, registration number 4390/1

How to cite: Pekov, I.V., Zubkova, N.V., Yapaskurt, V.O., Belakovskiy, D.I., Viganina, M.F., Sidorov, E.G. and Pushcharovsky, D.Y. (2013) Popovite, IMA 2013-060. CNMNC Newsletter No. 17, October 2013, page 3003; *Mineralogical Magazine*, 77, 2997–3005.

IMA No. 2013-061

Meerschautite

(Ag,Cu)₆Pb_{43-2x}Sb_{44+2x}S₁₁₂O_x ($x \sim 0.5$)

Pollone mine, Valdicastello Carducci, Pietrasanta, Apuan Alps, Tuscany, Italy (43°57'N 10°16'E)

Cristian Biagioni*, Yves Moëlo, Paolo Orlandi, Chris J. Stanley and Michel Evain

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

Derivative of owyhecite

Monoclinic: $P2_1$; structure determined

$a = 8.2393(1)$, $b = 43.6015(13)$, $c = 28.3688(8)$ Å,
 $\beta = 94.128(2)^\circ$

3.762(m), 3.663(s), 3.334(vs), 3.244(s),
 3.016(m), 2.968(m), 2.902(m), 2.072(ms)

Type material is deposited in the collections of the Museo di Storia Naturale e del Territorio, Università di Pisa, Calci (Pisa), Italy, catalogue number 19649

How to cite: Biagioni, C., Moëlo, Y., Orlandi, P., Stanley, C.J. and Evain, M. (2013) Meerschautite, IMA 2013-061. CNMNC Newsletter No. 17, October 2013, page 3004; *Mineralogical Magazine*, 77, 2997–3005.

IMA No. 2013-063

Oxynatromicrolite

(Na,Ca,U)₂(Ta,Nb)₂O₆(O,F)

No. 309 pegmatitic vein, Guanpo Town, Lushi County, Henan Province, China (33°52.480'N 110°42.760'E)

Fan Guang*, Ge Xiangkun, Li Guowu, Yu Apeng and Shen Ganfu

*E-mail: fanguang2008@163.com

Pyrochlore supergroup

Cubic: $Fd\bar{3}m$

$a = 10.420(6)$ Å

6.149(40), 3.026(100), 2.617(25), 2.009(10),

1.844(35), 1.571(30), 1.503(10), 1.196(15)

Type material is deposited in the collections of the Geological Museum of China, Beijing, China, specimen number M11940

How to cite: Fan Guang, Ge Xiangkun, Li Guowu, Yu Apeng and Shen Ganfu (2013) Oxynatromicrolite, IMA 2013-063. CNMNC Newsletter No. 17, October 2013, page 3004; *Mineralogical Magazine*, 77, 2997–3005.

IMA No. 2013-064

Emmerichite

Ba₂Na(Na,Fe²⁺)₂(Fe³⁺,Mg)Ti₂(Si₂O₇)₂O₂F₂

Basalt quarry Rother Kopf, Roth, Eifel Mountains, Rhineland-Palatinate, Germany, and Basalt quarry Graulay, Hillesheim, Eifel Mountains, Rhineland-Palatinate, Germany

Nikita V. Chukanov*, Ramiza K. Rastsvetaeva, Sergey M. Aksenov, Günter Blass, Igor V. Pekov, Dmitriy I. Belakovskiy and Jochen Tschörtner

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

Lamprophyllite group

Monoclinic: $C2/m$; structure determined

$a = 19.960(1)$, $b = 7.098(1)$, $c = 5.4074(3)$ Å,
 $\beta = 96.368(1)^\circ$

9.97(55), 3.461(65), 3.312(40), 2.882(38),
 2.792(100), 2.670(56), 2.629(42), 2.140(57)

Type material is deposited in the collections of the Fersman Mineralogical Museum of the Russian Academy of Sciences, Moscow, Russia, registration number 4225/1

How to cite: Chukanov, N.V., Rastsvetaeva, R.K., Aksenov, S.M., Blass, G., Pekov, I.V., Belakovskiy, D.I. and Tschörtner, J. (2013) Emmerichite, IMA 2013-064. CNMNC Newsletter No. 17, October 2013, page 3004; *Mineralogical Magazine*, 77, 2997–3005.

IMA No. 2013-065

Chanabayaite

CuCl(N₃C₂H₂)(NH₃)·0.25H₂O

Pabellón de Pica Mountain, Iquique Province, Tarapacá Region, Chile (22°55'S 70°08'W)

Nikita V. Chukanov*, Natalia V. Zubkova, Gerhard Möhn, Igor V. Pekov, Aleksandr E. Zadov and Dmitry Y. Pushcharovsky

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

New structure type

Orthorhombic: $Imma$; structure determined

$a = 19.484(3)$, $b = 7.2136(10)$, $c = 11.999(4)$ Å
 10.19(100), 6.189(40), 5.729(23), 5.216(75),
 4.964(20), 2.870(14), 2.830(20), 2.611(24)

Type material is deposited in the collections of the Fersman Mineralogical Museum of the Russian Academy of Sciences, Moscow, Russia, registration number 4418/1

How to cite: Chukanov, N.V., Zubkova, N.V., Möhn, G., Pekov, I.V., Zadov, A.E. and Pushcharovsky, D.Y. (2013) Chanabayaite, IMA 2013-065. CNMNC Newsletter No. 17, October 2013, page 3004; *Mineralogical Magazine*, 77, 2997–3005.

ERRATUM

IMA No. **2013-012** Cairncrossite

In CNMNC Newsletter 16, the space group was given incorrectly. The correct space group is triclinic, $P\bar{1}$.

NEW MINERAL APPROVALS WITHDRAWN IN JULY 2013

IMA No. **2012-037**

Cadmoxite

Approval for this mineral has been withdrawn. Subsequent studies have shown that the material examined is uraninite, UO_2 .

