



## IMA Commission on New Minerals, Nomenclature and Classification (CNMNC) Newsletter 36

### New minerals and nomenclature modifications approved in 2017

ULF HÅLENIUS (CHAIRMAN, CNMNC)<sup>1</sup>, FRÉDÉRIC HATERT (VICE-CHAIRMAN, CNMNC)<sup>2</sup>, MARCO PASERO (VICE-CHAIRMAN, CNMNC)<sup>3</sup> AND STUART J. MILLS (SECRETARY, CNMNC)<sup>4</sup>

<sup>1</sup> Department of Geosciences, Naturhistoriska Riksmuseet, Box 50007, 104 05 Stockholm, Sweden – ulf.halenius@nrm.se

<sup>2</sup> Laboratoire de Minéralogie, Université de Liège, 4000 Liège, Belgium – fhatert@ulg.ac.be

<sup>3</sup> Dipartimento di Scienze della Terra, Università di Pisa, Via Santa Maria 53, 56126 Pisa, Italy – marco.pasero@unipi.it

<sup>4</sup> 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 *European Journal of Mineralogy* 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 2017

IMA No. 2016-095

Shinkolobweite

$\text{Pb}_{1.25}[\text{U}^{5+}(\text{H}_2\text{O})_2(\text{U}^{6+}\text{O}_2)_5\text{O}_8(\text{OH})_2](\text{H}_2\text{O})_5$

Shinkolobwe mine, Katanga, Democratic Republic of  
Congo (11°2'54"S, 26°33'2"E)

Travis A. Olds\*, Aaron J. Lussier, Allen G. Oliver,  
Václav Petříček, Jakub Plášil, Anthony R. Kampf,  
Peter C. Burns, Mateusz Dembowski, Shawn M.  
Carlson and Ian M. Steele

\*E-mail: tolds@nd.edu

New structure type

Orthorhombic: superspace group *Imm2*(00g)(000);  
structure determined

$a = 11.9454(9)$ ,  $b = 14.309(1)$ ,  $c = 7.063(2)$  Å,  $q_1 = 0.3279 \cdot c^*$

7.27(27), 3.614(15), 3.486(49), 3.149(100), 2.519(15), 2.031(15), 1.993(23), 1.771(16)

Type material is deposited in the mineralogical collections of the Canadian Museum of Nature, Ottawa, Canada, catalogue number CMNMC 86897, and the Natural History Museum of Los Angeles County, Los Angeles, USA, catalogue number 65618  
How to cite: Olds, T.A., Lussier, A.J., Oliver, A.G., Petříček, V., Plášil, J., Kampf, A.R., Burns, P.C., Dembowski, M., Carlson, S.M. and Steele, I.M. (2017) Shinkolobweite, IMA 2016-095. CNMNC Newsletter No. 36, April 2017, page 339; *European Journal of Mineralogy*, **29**, 339–344.

#### IMA No. 2016-096

Tiberiobardiite

$\{Cu_9Al[SiO_3(OH)]_2(OH)_{12}(H_2O)_6\}(SO_4)_{1.5} \cdot 10H_2O$   
Cretaio, near Prata, Massa Marittima (GR), Tuscany, Italy (43°03'10"N, 10°58'40"E)

Cristian Biagioni\*, Marco Pasero and Federica Zaccarini

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

The Si analogue of chalcophyllite

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

$a = 10.6860(4)$ ,  $c = 28.324(1)$  Å

9.4(s), 4.67(s), 2.68(w), 2.576(m), 2.330(m), 2.041(mw), 1.548(w), 1.528(w)

Type material is deposited in the mineralogical collections of the Museo di Storia Naturale, Università di Pisa, Via Roma 79, Calci (PI), Italy, catalogue number 19900

How to cite: Biagioni, C., Pasero, M. and Zaccarini, F. (2017) Tiberiobardiite, IMA 2016-096. CNMNC Newsletter No. 36, April 2017, page 340; *European Journal of Mineralogy*, **29**, 339–344.

#### IMA No. 2016-097

Hyršlite

$Pb_8As_{10}Sb_6S_{32}$

Uchucchacua deposit, Oyon district, Catajumbo, Lima Department, Peru (10°37'23"S, 76°41'17"W)

Frank N. Keutsch\*, Dan Topa and Emil Makovicky

\*E-mail: keutsch@seas.harvard.edu

Sartorite homologous series

Monoclinic:  $P2_1$ ; structure determined

$a = 8.475(3)$ ,  $b = 7.917(3)$ ,  $c = 20.039(8)$  Å,  $\beta = 102.070(6)^\circ$

3.880(59), 3.512(100), 3.493(46), 3.488(47), 2.974(45), 2.968(47), 2.776(71), 2.773(70)

Type material is deposited in the mineralogical collections of the Naturhistorisches Museum Wien, Austria, catalogue number O201

How to cite: Keutsch, F.N., Topa, D. and Makovicky, E. (2017) Hyršlite, IMA 2016-097. CNMNC Newsletter No. 36, April 2017, page 340; *European Journal of Mineralogy*, **29**, 339–344.

## NEW MINERAL PROPOSALS APPROVED IN MARCH 2017

#### IMA No. 2016-098

Stracherite

$BaCa_6(SiO_4)_2[(PO_4)(CO_3)]_2F$

Haturim Complex, Negev Desert, near Arad city, Israel (31°13'58"N, 35°16'2"E)

Evgeny V. Galuskin\*, Biljana Krüger, Irina O. Galuskina, Hannes Krüger, Yevgeny Vapnik, Anuschka Pauluhn and Vincent Olieric

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

Isostructural with zadovite and aradite

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

$a = 7.0877(5)$ ,  $c = 25.201(2)$  Å

3.544(66), 3.265(39), 3.105(43), 3.047(82), 2.800(42), 2.709(100), 1.948(36), 1.772(54)

Type material is deposited in the collections of the Fersman Mineralogical Museum, Leninskiy pr., 18/κ2, 115162 Moscow, Russia, catalogue numbers 4957/1

How to cite: Galuskin, E.V., Krüger, B., Galuskina, I. O., Krüger, H., Vapnik, Y., Pauluhn, A. and Olieric, V. (2017) Stracherite, IMA 2016-098. CNMNC Newsletter No. 36, April 2017, page 340; *European Journal of Mineralogy*, **29**, 339–344.

#### IMA No. 2016-099

Arsenmedaite

$Mn_6^{2+}As_5^{5+}Si_5O_{18}(OH)$

Molinello, Graveglia Valley, Ne, Genova, Liguria, Italy (44°20'43"N, 9°27'32"E)

Cristian Biagioni\*, Donato Belmonte, Cristina Carbone, Roberto Cabella, Federica Zaccarini and Corrado Balestra

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

The As analogue of medaite

Monoclinic:  $P2_1/n$ ; structure determined

$a = 6.7099(3)$ ,  $b = 29.001(1)$ ,  $c = 7.5668(3)$  Å,  $\beta = 95.469(3)^\circ$

4.777(58), 3.266(100), 3.159(72), 3.094(82), 2.963(83), 2.935(79), 2.788(68), 2.612(98)

Type material is deposited in the mineralogical collections of the Museo di Storia Naturale, Università di Pisa, Via Roma 79, Calci (Pisa), Italy, catalogue number 19901, and the Dipartimento di Scienze della Terra, dell'Ambiente e della Vita (DISTAV), Università di Genova, Corso Europa 26, Genova, Italy, catalogue number MO483

How to cite: Biagioni, C., Belmonte, D., Carbone, C., Cabella, R., Zaccarini, F. and Balestra, C. (2017) Arsenmedaite, IMA 2016-099. CNMNC Newsletter No. 36, April 2017, page 340; *European Journal of Mineralogy*, **29**, 339–344.

#### IMA No. 2016-100

Ariegilatite

$BaCa_{12}(SiO_4)_4(PO_4)_2F_2O$

Hatrurim Complex, Negev Desert, near Arad city, Israel (31°13'58"N, 35°16'2"E)

Evgeny V. Galuskin\*, Biljana Krüger, Irina O. Galuskina, Hannes Krüger, Yevgeny Vapnik, Justyna A. Wojdyla and Mikhail Murashko

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

The P analogue of dargaite

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

$a = 7.1551(6)$ ,  $c = 41.303(3)$  Å  
3.578(51), 3.437(45), 3.090(100), 2.822(82), 2.754(62), 2.743(51), 1.983(47), 1.789(92)

Type material is deposited in the collections of the Fersman Mineralogical Museum, Leninskiy pr., 18/κ2, 115162 Moscow, Russia, catalogue numbers 4956/1

How to cite: Galuskin, E.V., Krüger, B., Galuskina, I. O., Krüger, H., Vapnik, Y., Wojdyla, J.A. and Murashko, M. (2017) Ariegilatite, IMA 2016-100. CNMNC Newsletter No. 36, April 2017, page 340; *European Journal of Mineralogy*, **29**, 339–344.

#### IMA No. 2016-101

Staročeskéite

$\text{Ag}_{0.70}\text{Pb}_{1.60}(\text{Bi}_{1.35}\text{Sb}_{1.35})_{\Sigma 2.70}\text{S}_6$

Staročeské Lode, Kutná Hora district, Central Bohemia, Czech Republic (49°58.47882'N, 15°16.15142'E)  
Richard Pažout\* and Jiří Sejkora

\*E-mail: richard.pazout@vscht.cz

Lilianite group

Orthorhombic:  $Cmcm$ ; structure determined

$a = 4.2539(8)$ ,  $b = 13.3094(8)$ ,  $c = 19.625(1)$  Å  
3.746(33), 3.446(61), 3.382(100), 3.035(45), 2.932(80), 2.779(34), 2.127(29), 2.098(28)

Type material is deposited in the collections of the National Museum, Department of Mineralogy and Petrology, Cirkusová 1740, Praha 9, Czech Republic, catalogue number PIP 30/2016

How to cite: Pažout, R. and Sejkora, J. (2017) Staročeskéite, IMA 2016-101. CNMNC Newsletter No. 36, April 2017, page 341; *European Journal of Mineralogy*, **29**, 339–344.

#### IMA No. 2016-102

Giftgrubeite

$\text{CaMn}_2\text{Ca}_2(\text{AsO}_4)_2(\text{AsO}_3\text{OH})_2 \cdot 4\text{H}_2\text{O}$

Giftgrube mine, St Jacques vein, Raenthal, Sainte Marie-aux-Mines, Haut-Rhin, France  
Nicolas Meisser\*, Jakub Plášil, Thierry Brunspurger, Cédric Lheur and Radek Škoda

\*E-mail: nicolas.meisser@unil.ch

Hureaulite group

Monoclinic:  $C2/c$ ; structure determined

$a = 18.495(7)$ ,  $b = 9.475(4)$ ,  $c = 9.986(4)$  Å,  $\beta = 96.79(3)^\circ$   
8.54(40), 4.80(50), 4.65(50), 3.33(100), 3.18(80), 3.05(50), 2.488(50), 2.414(60)

Type material is deposited in the mineralogical collections of the Musée Cantonal de Géologie, University of Lausanne, Anthropole, Dorigny, CH-1015 Lausanne, Switzerland, catalogue number MGL 080133 (holotype) and 080134 (cotype)

How to cite: Meisser, N., Plášil, J., Brunspurger, T., Lheur, C. and Škoda, R. (2017) Giftgrubeite, IMA 2016-102. CNMNC Newsletter No. 36, April 2017, page 341; *European Journal of Mineralogy*, **29**, 339–344.

#### IMA No. 2016-103

Pansnerite

$\text{K}_3\text{Na}_3(\text{Fe}^{3+}, \text{Al})_6(\text{AsO}_4)_8$

Arsenatnaya fumarole, Second scoria cone of the Northern Breakthrough of the Great Tolbachik Fissure Eruption, Tolbachik volcano, Kamchatka peninsula, Far-Eastern Region, Russia (55°41'N, 160°14'E, 1200 m asl)

Igor V. Pekov\*, Natalia V. Zubkova, Natalia N. Koshlyakova, Dmitry I. Belakovskiy, Marina F. Vigasina, Vasilij O. Yapaskurt, Atali A. Agakhanov, Sergey N. Britvin, Anna G. Turchkova, Evgeny G. Sidorov and Dmitry Y. Pushcharovsky

\*E-mail: igorpekov@mail.ru

Closely related to ozerovaite

Orthorhombic:  $Cmce$ ; structure determined

$a = 10.7372(3)$ ,  $b = 20.837(1)$ ,  $c = 6.4734(2)$  Å  
10.49(100), 5.380(88), 4.793(65), 3.105(46), 3.079(32), 2.932(35), 2.783(65), 2.694(52)

Type material is deposited in the collections of the Fersman Mineralogical Museum, Russian Academy of Sciences, Moscow, Russia, catalogue numbers 4964/1

How to cite: Pekov, I.V., Zubkova, N.V., Koshlyakova, N.N., Belakovskiy, D.I., Vigasina, M.F., Yapaskurt, V. O., Agakhanov, A.A., Britvin, S.N., Turchkova, A.G., Sidorov, E.G. and Pushcharovsky, D.Y. (2017) Pansnerite, IMA 2016-103. CNMNC Newsletter No. 36, April 2017, page 341; *European Journal of Mineralogy*, **29**, 339–344.

#### IMA No. 2016-104

Cesiokenopyrochlore

$\square\text{Nb}_2(\text{O}, \text{OH})_6\text{Cs}_{1-x}$  ( $x \sim 0.20$ )

Tetezantsio pegmatites, Tetezantsio-Andoabatokely Pegmatite Field, Betafo District, Antananarivo Province, Madagascar (20°9'S, 46°39'E)

Atali A. Agakhanov\*, Anatoly V. Kasatkin, Sergey N. Britvin, Oleg I. Siidra, Leonid A. Pautov, Igor V. Pekov and Vladimir Y. Karpenko

\*E-mail: atali99@mail.ru

Pyrochlore supergroup

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

$a = 10.444(1)$  Å  
6.03(37), 3.70(9), 3.15(100), 3.02(35), 2.012(17), 1.848(19), 1.576(11), 1.361(9)

Type material is deposited in the collections of the Fersman Mineralogical Museum, Russian Academy of Sciences, Moscow, Russia, catalogue numbers 4954/1  
How to cite: Agakhanov, A.A., Kasatkin, A.V., Britvin, S.N., Siidra, O.I., Pautov, L.A., Pekov, I.V. and Karpenko, V.Y. (2017) Cesiokenopyrochlore, IMA 2016-104. CNMNC Newsletter No. 36, April 2017, page 341; *European Journal of Mineralogy*, **29**, 339–344.

**IMA No. 2016-105**

Vymazalováite

Pd<sub>3</sub>Bi<sub>2</sub>S<sub>2</sub>

Komsomolsky mine, Talnakh deposit, Norilsk region, Russia (69°30'20"N, 88°27'17"E)

Sergei F. Sluzhenikin, Vladimir V. Kozlov, Christopher J. Stanley\* and Maria V. Lukashova

\*E-mail: C.Stanley@nhm.ac.uk

Known synthetic analogue

Cubic: *I*213 $a = 8.3097(9) \text{ \AA}$ 

4.147(32), 2.934(78), 2.396(100), 2.076(53), 1.857(27), 1.695(34), 1.468(35), 1.252(31)

Type material is deposited in the collections of the Natural History Museum, London, UK, polished section BM 2016.150

How to cite: Sluzhenikin, S.F., Kozlov, V.V., Stanley, C.J. and Lukashova, M.V. (2017) Vymazalováite, IMA 2016-105. CNMNC Newsletter No. 36, April 2017, page 342; *European Journal of Mineralogy*, **29**, 339–344.**IMA No. 2016-106**

Lagalyite

Ca<sub>2x</sub>Mn<sub>1-x</sub>O<sub>2</sub>·1.5-2H<sub>2</sub>O ( $x = 0.05\text{--}0.08$ )Christbescherung mine, Großvoigtsberg, near Freiberg, Saxony, Germany; Aufgeklärt Glück mine, Hasserode, Harz, Saxony-Anhalt, Germany  
Thomas Witzke\*, Herbert Pöllmann, José Eduardo F. C. Gardolinski and Marco Sommariva

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

Known synthetic analogue

Monoclinic: s.g. unknown (possibly *C*2) $a = 5.146(9)$ ,  $b = 2.81(1)$ ,  $c = 9.98(2) \text{ \AA}$ ,  $\beta = 94.2(2)^\circ$   
9.94(100), 4.975(57), 3.320(20), 2.476(4), 2.360(2), 1.468(3), 1.454(3), 1.420(3)

Type material is deposited in the mineralogical collections of the Bergakademie Freiberg, Germany, catalogue No. 84104 (Christbescherung Mine, Großvoigtsberg) and No. 84105 (Aufgeklärt Glück Mine, Hasserode)

How to cite: Witzke, T., Pöllmann, H., Gardolinski, J. E.F.C. and Sommariva, M. (2017) Lagalyite, IMA 2016-106. CNMNC Newsletter No. 36, April 2017, page 342; *European Journal of Mineralogy*, **29**, 339–344.**IMA No. 2016-107**

Ulfanderssonite-(Ce)

(Ce<sub>15</sub>Ca)<sub>Σ16</sub>Mg<sub>2</sub>(SiO<sub>4</sub>)<sub>10</sub>(SiO<sub>3</sub>OH)(OH,F)<sub>5</sub>Cl<sub>3</sub>

Malmkärra mine, Norberg, Västmanland, Sweden (60°3'34"N, 15°50'45"E, 200 m asl)

Dan Holtstam\*, Luca Bindi, Ulf Hålenius and Uwe Kolitsch

\*E-mail: dan.holtstam@vr.se

New structure type

Monoclinic: *Cm*; structure determined $a = 14.1403(8)$ ,  $b = 10.7430(7)$ ,  $c = 15.498(1) \text{ \AA}$ ,  $\beta = 106.615(6)^\circ$ 

4.350(21), 3.644(21), 3.524(26), 2.948(100), 2.923(47), 2.683(24), 2.660(32), 1.760(25)

Type material is deposited in the mineralogical collections of the Department of Geosciences, Swedish Museum of Natural History, Box 50007, SE-10405 Stockholm, Sweden, collection number NRM 20010323

How to cite: Holtstam, D., Bindi, L., Hålenius, U. and Kolitsch, U. (2017) Ulfanderssonite-(Ce), IMA 2016-107. CNMNC Newsletter No. 36, April 2017, page 342; *European Journal of Mineralogy*, **29**, 339–344.**IMA No. 2016-108**

Heyerdahlite

Na<sub>3</sub>Mn<sub>7</sub>Ti<sub>2</sub>(Si<sub>4</sub>O<sub>12</sub>)<sub>2</sub>O<sub>2</sub>(OH)<sub>4</sub>F(H<sub>2</sub>O)<sub>2</sub>

Bratthagen pegmatite, Larvik Plutonic complex, Lågendalen, Hedrum, Vestfold County, Norway (59°09'26"N, 10°00'39"E)

Elena Sokolova\*, Maxwell C. Day, Frank C. Hawthorne and Roy Kristiansen

\*E-mail: elena\_sokolova@umanitoba.ca

Astrophyllite supergroup

Triclinic: *P*1̄; structure determined $a = 5.392(2)$ ,  $b = 11.968(4)$ ,  $c = 11.868(4) \text{ \AA}$ ,  $\alpha = 112.743(8)$ ,  $\beta = 94.816(7)$ ,  $\gamma = 103.037(8)^\circ$   
10.745(81), 3.582(66), 2.791(65), 2.686(45), 2.663(65), 2.594(100), 2.496(51), 1.582(45)

Type material is deposited in the mineralogical collections of the Royal Ontario Museum, Toronto, Ontario, Canada, accession number M57516

How to cite: Sokolova, E., Day, M.C., Hawthorne, F.C. and Kristiansen, R. (2017) Heyerdahlite, IMA 2016-108. CNMNC Newsletter No. 36, April 2017, page 342; *European Journal of Mineralogy*, **29**, 339–344.**IMA No. 2016-109**

Plumbopharmacosiderite

Pb<sub>0.5</sub>Fe<sub>4</sub><sup>3+</sup>(AsO<sub>4</sub>)<sub>3</sub>(OH)<sub>4</sub>·5H<sub>2</sub>O

In the dumps of Monte Falò mine, near the village of Coiromonte, Armeno (NO), Piedmont, Italy (45°50'52.37"N, 8°29'1.13"E)

Pietro Vignola\*, Frédéric Hatert, Nicola Rotiroti, Fabrice Dal Bo, Marco Merlini, Andrea Risplendente, Paolo Gentile, Claudio Albertini and Alessandro Pavese

\*E-mail: pietro.vignola@idpa.cnr.it

Pharmacosiderite group

Cubic: *P*4̄3*m*; structure determined $a = 7.9791(2) \text{ \AA}$ 

8.02(100), 5.86(15), 4.56(12), 3.98(18), 3.25(24), 2.830(18), 2.535(12), 1.879(29)

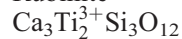
Type material is deposited in the collections of the Laboratoire de Minéralogie, University of Liège, Belgium, collection number 20392



How to cite: Vignola, P., Hatert, F., Rotiroli, N., Dal Bo, F., Merlini, M., Risplendente, A., Gentile, P., Albertini, C. and Pavese, A. (2017) Heyerdahlite, IMA 2016-108. CNMNC Newsletter No. 36, April 2017, page 342; *European Journal of Mineralogy*, **29**, 339–344.

#### IMA No. 2016-110

Rubinite



Vigarano meteorite, fell near Vigarano Pieve, Ferrara, Italy (44°51'N, 11°24'E); Allende CV3 meteorite, fell near Pueblito de Allende, Chihuahua, Mexico (26°58'N, 105°19'W)

Chi Ma\*, Takashi Yoshizaki, Tomoki Nakamura and Jun Muto

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

Garnet supergroup

Cubic:  $Ia\bar{3}d$

$a = 12.1875 \text{ \AA}$

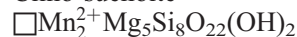
3.047(55), 2.725(100), 2.488(50), 1.690(34), 1.629(80), 1.363(18), 1.330(23), 1.113(20)

Type material is deposited in the meteorite collection of the Division of Geological and Planetary Sciences, California Institute of Technology, Pasadena, California 91125, USA, section VCM3 (Vigarano), and the Division of Earth and Planetary Materials Science, Graduate School of Science, Tohoku University, Sendai, Miyagi 980-8578, Japan, section AE01 (Allende)

How to cite: Ma, C., Yoshizaki, T., Nakamura, T. and Muto, J. (2017) Rubinite, IMA 2016-110. CNMNC Newsletter No. 36, April 2017, page 343; *European Journal of Mineralogy*, **29**, 339–344.

#### IMA No. 2016-111

Clino-suenoite



Vedretta Inferiore di Scerscen (Lower Scerscen Glacier), Lanzada, Valmalenco, Sondrio, Italy (46°16'9"N, 9°54'8"E)

Roberta Oberti\*, Massimo Boiocchi, Frank C. Hawthorne, Marco E. Ciriotti, Olav Revheim and Roberto Bracco

\*E-mail: oberti@crystal.unipv.it

Amphibole supergroup

Monoclinic:  $C2/m$ ; structure determined

$a = 9.613(1)$ ,  $b = 18.073(2)$ ,  $c = 5.3073(6) \text{ \AA}$ ,  $\beta = 102.825(2)^\circ$

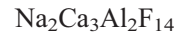
8.321(60), 3.421(53), 3.253(41), 3.079(62), 2.728(100), 2.603(42), 2.513(77), 2.175(41)

Type material is deposited in the collections of Museo di Mineralogia, Dipartimento di Scienze della Terra e dell'Ambiente, Università di Pavia, catalogue number 2016-01

How to cite: Oberti, R., Boiocchi, M., Hawthorne, F.C., Ciriotti, M.E., Revheim, O. and Bracco, R. (2017) Clino-suenoite, IMA 2016-111. CNMNC Newsletter No. 36, April 2017, page 343; *European Journal of Mineralogy*, **29**, 339–344.

#### IMA No. 2016-112

Verneite



In fumaroles on Eldfell and Hekla volcanoes, Iceland; in a sublimate sample from Vesuvius volcano, Campania, Italy

Tonči Balić-Zunić\*, Anna Garavelli, Daniela Pinto and Donatella Mitolo

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

Known synthetic analogue

Cubic:  $I2_13$

$a = 10.264(1) \text{ \AA}$

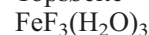
4.18(76), 3.23(68), 2.95(100), 2.184(78), 2.009(98), 1.871(75), 1.811(84), 1.663(66)

Type material is deposited in the mineralogical collections of the Icelandic Institute of Natural History, Gardabaer, Iceland, sample numbers NI 15509, NI 15518 and NI 17046 (Hekla – holotype) and NI 12256 (Eldfell – cotype), the Department of Geosciences and Natural Resource Management, University of Copenhagen, Denmark, sample numbers E4-1A, E4-2A and E4-2B (Eldfell – cotype), and the Pelloux collection of the Dipartimento di Scienze della Terra e Geoambientali, Università di Bari, Italy (Vesuvius – cotype)

How to cite: Balić-Zunić, T., Garavelli, A., Pinto, D. and Mitolo, D. (2017) Verneite, IMA 2016-112. CNMNC Newsletter No. 36, April 2017, page 343; *European Journal of Mineralogy*, **29**, 339–344.

#### IMA No. 2016-113

Topsøeite



In fumaroles on Hekla volcano, Iceland (63°59'37"N, 19°39'48"W)

Tonči Balić-Zunić\*, Anna Garavelli and Donatella Mitolo

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

The  $\text{Fe}^{3+}$  analogue of rosenbergite

Tetragonal:  $P4/n$ ; structure determined

$a = 7.8384(4)$ ,  $c = 3.8718(2) \text{ \AA}$

5.52(100), 3.90(74), 3.45(72), 3.16(40), 2.76(45), 2.470(54), 1.874(33), 1.748(45)

Type material is deposited in the mineralogical collections of the Icelandic Institute of Natural History, Gardabaer, Iceland, sample number NI 15515

How to cite: Balić-Zunić, T., Garavelli, A. and Mitolo, D. (2017) Topsøeite, IMA 2016-113. CNMNC Newsletter No. 36, April 2017, page 343; *European Journal of Mineralogy*, **29**, 339–344.

**IMA No. 2015-022a**

Zagamiite

CaAl<sub>2</sub>Si<sub>3.5</sub>O<sub>11</sub>

Zagami meteorite, fell at Zagami, Katsina Province, Nigeria; NWA 856 meteorite, fell in Morocco

Chi Ma\* and Oliver Tschauner

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

New structure type

Hexagonal: *P6<sub>3</sub>/mmc*; structure determined $a = 5.403(2)$ ,  $c = 12.77(3)$  Å

2.701(29), 2.638(49), 2.488(20), 2.197(15), 2.050(100), 1.575(67), 1.547(22), 1.351(44)

Type material is deposited in the mineralogical collections of the Smithsonian Institution's National Museum of Natural History, Washington DC, USA, registration number USNM 7619 (Zagami), and the E. Stolper's Martian Meteorite Collection of the Division of Geological and Planetary Sciences, California Institute of Technology, Pasadena, California 91125, USA (NWA 856)

How to cite: Ma, C. and Tschauner, O. (2017) Zagamiite, IMA 2015-022a. CNMNC Newsletter No. 36, April 2017, page 344; *European Journal of Mineralogy*, **29**, 339–344.

## NOMENCLATURE PROPOSAL APPROVED IN FEBRUARY 2017

**Graftonite group**

The graftonite group has been established. The rootname “graftonite” is adopted for minerals with  ${}^{M2,M3}Fe^{2+} > {}^{M2,M3}Mn^{2+}$ , the rootname “beusite” for minerals with  ${}^{M2,M3}Mn^{2+} > {}^{M2,M3}Fe^{2+}$ . Graftonite is redefined as  $Fe^{2+}Fe_2^{2+}(PO_4)_2$ . Beusite is redefined as  $Mn^{2+}Mn_2^{2+}(PO_4)_2$ . Three potential new minerals belonging to the graftonite group are anticipated.

## NOMENCLATURE PROPOSAL APPROVED IN MARCH 2017

**IMA 17-A: Swamboite** (redefined and renamed)

Proposal 17-A is accepted, and swamboite is renamed to swamboite-(Nd). Swamboite was originally described as a new mineral with a formula  $U_{0.333}H_2(UO_2SiO_4)_2 \cdot 10H_2O$ . However, new chemical analyses of the type material indicate that swamboite contains REEs, and dominantly  $Nd^{3+}$ , as an essential constituent. The revised chemical formula of swamboite-(Nd) is  $Nd_{0.333}[(UO_2)(SiO_3OH)](H_2O)_{\sim 2.5}$ .