



IMA Commission on New Minerals, Nomenclature and Classification (CNMNC) NEWSLETTER 45

NEW MINERALS AND NOMENCLATURE MODIFICATIONS APPROVED IN 2018

ULF HÅLENIUS¹ (CHAIRMAN, CNMNC), FRÉDÉRIC HATERT² (VICE-CHAIRMAN, CNMNC),
MARCO PASERO³ (VICE-CHAIRMAN, CNMNC) and STUART J. MILLS⁴ (SECRETARY CNMNC)

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

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

³ Dipartimento di Scienze della Terra, Università di Pisa, Via Santa Maria 53, 56126 Pisa, Italy – marco.pasero@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 *European Journal of Mineralogy* on a routine basis, as well as being added month by month to the Commission's website.

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 AUGUST 2018

IMA No. 2018-041

Milanriederite

$\text{Ca}_{19}\text{Fe}^{3+}\text{Al}_4(\text{Mg}_4\text{Al}_4)\text{Si}_{18}\text{O}_{67}(\text{OH})_{11}$

Kombat mine, Grootfontein district, Otjozondjupa region, Namibia

Nikita V. Chukanov*, Taras L. Panikorovskii, Alexey G. Goncharov, Igor V. Pekov, Dmitry I.

Belakovskiy, Sergey N. Britvin, Steffen Möckel and Svetlana A. Vozchikova

*E-mail: nikchukanov@yandex.ru

Vesuvianite group

Tetragonal: $P4/nnc$; structure determined

$a = 15.6578(4)$, $c = 11.8597(5)$ Å

2.970(50), 2.774(100), 2.617(87), 2.481(30),
2.143(19), 1.676(17), 1.628(38), 1.570(12)

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

of Sciences, Leninskiy Prospekt 18-2, Moscow 119071, Russia, registration number 5224/1
How to cite: Chukanov, N.V., Panikorovskii, T.L., Goncharov, A.G., Pekov, I.V., Belakovskiy, D.I., Britvin, S.N., Möckel, S. and Vozchikova, S.A. (2018) Milanriederite, IMA 2018-041. CNMNC Newsletter No. 45, October 2018, page 1037; *European Journal of Mineralogy*, **30**, 1037–1043.

IMA No. 2018-045

Hanauerite
AgHgSI
Schöne Aussicht Mine, Dernbach, Neuwied, Wied Iron Spar District, Westerwald, Rhineland-Palatinate, Germany (holotype); Friedrichsseggen Mine, Frücht, Bad Ems District, Lahn valley, Rhineland-Palatinate, Germany (cotype)

Igor V. Pekov*, Natalia V. Zubkova, Sergey N. Britvin, Atali A. Agakhanov, Yury S. Polekhovskiy, Dmitry Y. Pushcharovskiy, Gerhard Möhn, Joy Desor and Günter Blass

*E-mail: igorpekov@mail.ru

Known synthetic analogue
Orthorhombic: *Pmma*; structure determined
 $a = 9.932(4)$, $b = 4.622(2)$, $c = 9.891(4)$ Å
9.88(20), 4.185(32), 3.857(58), 3.201(22), 3.138(20), 2.793(100), 2.477(30), 2.312(22)

Type material is deposited in the collections of the Fersman Mineralogical Museum, Russian Academy of Sciences, Leninskiy Prospekt 18-2, Moscow 119071, Russia, registration numbers 5223/1 (Schöne Aussicht Mine) and 5223/2 (Friedrichsseggen Mine)

How to cite: Pekov, I.V., Zubkova, N.V., Britvin, S.N., Agakhanov, A.A., Polekhovskiy, Y.S., Pushcharovskiy, D.Y., Möhn, G., Desor, J. and Blass, G. (2018) Hanauerite, IMA 2018-045. CNMNC Newsletter No. 45, October 2018, page 1038; *European Journal of Mineralogy*, **30**, 1037–1043.

IMA No. 2018-046

Manaevite-(Ce)
 $\text{Ca}_{11}(\text{Ce}, \text{H}_2\text{O}, \text{Ca})_8\text{Mg}(\text{Al}, \text{Fe})_4(\text{Mg}, \text{Ti}, \text{Fe}^{3+})_8[\text{Si}_2\text{O}_7]_4$
 $[(\text{SiO}_4)_8(\text{H}_4\text{O}_4)_2](\text{OH})_9$

Kovdor massif, Kola Peninsula, Russia
Mikhail M. Moiseev, Taras L. Panikorovskii*, Sergey M. Aksenov, Anton S. Mazur, Julia A. Mikhailova, Victor N. Yakovenchuk, Ayya V. Bazai, Gregory Y. Ivanyuk, Atali A. Agakhanov, Vladimir V. Shilovskikh, Igor V. Pekov, Anatoly V. Kasatkin, Vyacheslav S. Rusakov, Vasiliy O. Yapaskurt, Vladimir Y. Karpenko and Sergey V. Krivovichev

*E-mail: taras.panikorovsky@spbu.ru

Vesuvianite group
Tetragonal: *P4/nnc*; structure determined
 $a = 15.925(1)$, $c = 11.966(1)$ Å
5.98(27), 4.61(30), 3.289(31), 2.991(100), 2.787(95), 2.636(81), 2.503(47), 1.659(25)

Type material is deposited in the collections of the Fersman Mineralogical Museum, Russian Academy of Sciences, Leninskiy Prospekt 18-2, Moscow 119071, Russia, registration number 5075/1, and the Mineralogical Museum of St. Petersburg State University, St. Petersburg, Russia, registration No. 1/19666

How to cite: Moiseev, M.M., Panikorovskii, T.L., Aksenov, S.M., Mazur, A.S., Mikhailova, J.A., Yakovenchuk, V.N., Bazai, A.V., Ivanyuk, G.Y., Agakhanov, A.A., Shilovskikh, V.V., Pekov, I.V., Kasatkin, A.V., Rusakov, V.S., Yapaskurt, V.O., Karpenko, V.Y. and Krivovichev, S.V. (2018) Manaevite-(Ce), IMA 2018-046. CNMNC Newsletter No. 45, October 2018, page 1038; *European Journal of Mineralogy*, **30**, 1037–1043.

IMA No. 2018-047

Parafiniukite
 $\text{Ca}_2\text{Mn}_3(\text{PO}_4)_3\text{Cl}$
Szklary serpentinite massif, ca. 6 km N of the Żabkowie Śląskie town, ca. 60 km S of Wrocław, Lower Silesia, Poland (50°39.068'N, 16°49.932'E)
Adam Pieczka*, Marco Pasero, Cristian Biagioni, Bożena Gołębiowska, Piotr Jeleń and Maciej Sitarz

*E-mail: pieczka@agh.edu.pl

Apatite supergroup
Hexagonal: *P6₃/m*; structure determined
 $a = 9.4900(6)$, $c = 6.4777(5)$ Å
3.470(16), 3.239(39), 2.801(76), 2.740(100), 2.675(50), 2.544(69), 1.914(31), 1.864(22)

Type material is deposited in the collections of the Mineralogical Museum, University of Wrocław, Cybulskiego 30, 50-205 Wrocław, Poland, catalogue number MMWr IV8024 (holotype), and the Museo di Storia Naturale, Università di Pisa, Via Roma 79, Calci (PI), Italy, catalogue number 19902 (crystal used for SCXRD study)

How to cite: Pieczka, A., Pasero, M., Biagioni, C., Gołębiowska, B., Jeleń, P. and Sitarz, M. (2018) Parafiniukite, IMA 2018-047. CNMNC Newsletter No. 45, October 2018, page 1038; *European Journal of Mineralogy*, **30**, 1037–1043.

IMA No. 2018-048

Bicapite
 $[\text{KNa}_2\text{Mg}_2(\text{H}_2\text{O})_{25}][\text{H}_2\text{PV}_{12}^{5+}\text{O}_{40}(\text{V}^{5+}\text{O})_2]$
Pickett Corral mine, Bull Canyon, ca. 13 km W of the town of Naturita, Montrose Co., Colorado, USA (38.199434°N, 108.839946°W)

Anthony R. Kampf*, John M. Hughes, Barbara P. Nash and Joe Marty

*E-mail: akampf@nhm.org

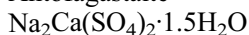
Structurally related to kegginites
Tetragonal: *I4/m*; structure determined
 $a = 11.545(1)$, $c = 20.546(1)$ Å
10.14(100), 5.037(10), 4.348(10), 4.142(8), 2.978(29), 2.809(11), 2.583(11), 1.820(8)

Cotype material is deposited in the mineralogical collections of the Natural History Museum of Los Angeles County, 900 Exposition Boulevard, Los Angeles, CA 90007, USA, catalogue numbers 66915 and 66916

How to cite: Kampf, A.R., Hughes, J.M., Nash, B.P. and Marty, J. (2018) Bicapite, IMA 2018-048. CNMNC Newsletter No. 45, October 2018, page 1038; *European Journal of Mineralogy*, **30**, 1037–1043.

IMA No. 2018-049

Antofagastaite



Coronel Manuel Rodríguez mine, Mejillones peninsula, Antofagasta province, Antofagasta region, Chile
Igor V. Pekov*, Vadim M. Kovrugin, Oleg I. Siidra, Nikita V. Chukanov, Dmitry I. Belakovskiy, Natalia N. Koshlyakova, Vasilii O. Yapaskurt, Anna G. Turchkova and Gerhard Möhn

*E-mail: igorpekov@mail.ru

Closely related to syngenite

Monoclinic: $P2_1/m$; structure determined

$a = 6.4596(4)$, $b = 6.8703(5)$, $c = 9.4685(7)$ Å, $\beta = 104.580(4)^\circ$

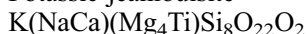
9.17(100), 5.501(57), 4.595(32), 3.437(59), 3.058(43), 2.918(50), 2.795(35), 2.753(50)

Type material is deposited in the collections of the Fersman Mineralogical Museum, Russian Academy of Sciences, Leninskiy Prospekt 18-2, Moscow 119071, Russia, registration number 5222/1

How to cite: Pekov, I.V., Kovrugin, V.M., Siidra, O.I., Chukanov, N.V., Belakovskiy, D.I., Koshlyakova, N.N., Yapaskurt, V.O., Turchkova, A.G. and Möhn, G. (2018) Antofagastaite, IMA 2018-049. CNMNC Newsletter No. 45, October 2018, page 1039; *European Journal of Mineralogy*, **30**, 1037–1043.

IMA No. 2018-050

Potassic-jeanlouisite



Zirkle Mesa, Leucite Hills, close to the town of Superior, Wyoming, USA (41°46'54.58"N, 108°53'23.82"W)

Roberta Oberti*, Massimo Boiocchi, Frank C. Hawthorne, Giancarlo Della Ventura and Gunnar Färber

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

Amphibole supergroup

Monoclinic: $C2/m$; structure determined

$a = 9.937(1)$, $b = 18.010(2)$, $c = 5.2808(5)$ Å, $\beta = 104.955(2)^\circ$

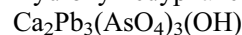
8.472(59), 3.380(87), 3.284(68), 3.151(79), 2.945(50), 2.703(100), 2.587(52), 2.541(80)

Type material is deposited in the collections of the Museo di Mineralogia, Sistema Museale di Ateneo, University of Pavia, catalogue number 2018-01

How to cite: Oberti, R., Boiocchi, M., Hawthorne, F.C., Della Ventura, G. and Färber, G. (2018) Potassic-jeanlouisite, IMA 2018-050. CNMNC Newsletter No. 45, October 2018, page 1039; *European Journal of Mineralogy*, **30**, 1037–1043.

IMA No. 2018-052

Hydroxylhedyphane



Långban Fe-Mn-(Ba-As-Pb-Sb) deposit, Filipstad district, Värmland, Sweden (59.86°N, 14.26°E, 215 m a.s.l.)

Cristian Biagioni*, Ulf Hålenius, Marco Pasero, Andreas Karlsson and Ferdinando Bosi

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

Apatite supergroup

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

$a = 10.0414(3)$, $c = 7.2752(2)$ Å

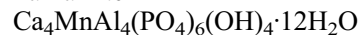
4.127(m), 3.278(m), 2.997(vs), 2.940(s), 2.894(m), 2.176(m), 2.067(m), 1.950(s)

Type material is deposited in the mineralogical collections of the Swedish Museum of Natural History, Box 50007, SE-10405 Stockholm, Sweden, catalogue number NRM #19070258, and the Museo di Storia Naturale, Università di Pisa, Via Roma 79, Calci (PI), Italy, catalogue number 19903

How to cite: Biagioni, C., Hålenius, U., Pasero, M., Karlsson, A. and Bosi, F. (2018) Hydroxylhedyphane, IMA 2018-052. CNMNC Newsletter No. 45, October 2018, page 1039; *European Journal of Mineralogy*, **30**, 1037–1043.

IMA No. 2018-053

Fanfaniite



East dump of the Foote Lithium Company mine, Kings Mountain district, Cleveland Co., North Carolina, USA (35°12'40"N, 81°21'20"W); Hagen-dorf Süd pegmatite mine, 60 and 67 m level, Oberpfalz, Bavaria, Germany (49°39'1"N, 12°27'35"E)

Ian E. Grey*, Anthony R. Kampf, Jason B. Smith and Colin M. MacRae

*E-mail: ian.grey@csiro.au

Montgomeryite group

Monoclinic: $C2/c$; structure determined

$a = 10.032(5)$, $b = 24.162(9)$, $c = 6.241(2)$ Å, $\beta = 91.47(2)^\circ$

12.14(33), 5.13(97), 3.137(28), 2.938(100), 2.817(19), 2.618(70), 2.249(25), 1.740(22)

Type material is deposited in the mineralogical collections of the Natural History Museum of Los Angeles County, 900 Exposition Boulevard, Los Angeles, CA 90007, USA, catalogue numbers 66771 (Foote mine holotype) and 66772 (Foote mine cotype), and the Museum Victoria, Australia, registration number M48795 (Hagen-dorf Süd cotype)

How to cite: Grey, I.E., Kampf, A.R., Smith, J.B. and MacRae, C.M. (2018) Fanfaniite,

IMA 2018-053. CNMNC Newsletter No. 45, October 2018, page 1039; *European Journal of Mineralogy*, **30**, 1037–1043.

IMA No. **2018-054**

Aniyunwiyaite
 $\text{Ca}_3\text{Mn}^{2+}\text{Fe}^{2+}\text{Al}_4(\text{PO}_4)_6(\text{OH})_4 \cdot 12\text{H}_2\text{O}$
 East dump of the Foote Lithium Company mine, Kings Mountain district, Cleveland Co., North Carolina, USA (35°12'40"N, 81°21'20"W)

Ian E. Grey*, Anthony R. Kampf, Jason B. Smith and Colin M. MacRae

*E-mail: ian.grey@csiro.au

Closely related to montgomeryite-group minerals

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

$a = 6.255(3)$, $b = 13.197(4)$, $c = 19.410(5)$ Å,
 $\alpha = 106.817(7)$, $\beta = 90.81(2)$, $\gamma = 90.65(2)^\circ$
 12.28(30), 5.150(100), 4.402(16), 2.955(39),
 2.913(17), 2.630(59), 1.852(14), 1.748(17)

Type material is deposited in the mineralogical collections of the Natural History Museum of Los Angeles County, 900 Exposition Boulevard, Los Angeles, CA 90007, USA, catalogue numbers 66773 (holotype) and 66774 (cotype)

How to cite: Grey, I.E., Kampf, A.R., Smith, J.B. and MacRae, C.M. (2018) Aniyunwiyaite, IMA 2018-054. CNMNC Newsletter No. 45, October 2018, page 1040; *European Journal of Mineralogy*, **30**, 1037–1043.

NEW MINERAL PROPOSALS APPROVED IN SEPTEMBER 2018

IMA No. **2018-056**

Bonacinaite
 $\text{Sc}(\text{AsO}_4)_2 \cdot 2\text{H}_2\text{O}$

In the dumps of the Varenche mine, Saint-Barthélemy valley, Nus, Val d'Aosta, Italy (45°47'25"N, 7°28'55"E)

Fernando Cámara*, Marco E. Ciriotti, Uwe Kolitsch, Pietro Vignola, Frédéric Hatert, Erica Bittarello, Roberto Bracco and Giorgio M. Bortolozzi

*E-mail: fernando.camara@unimi.it

The As-analogue of kolbeckite

Monoclinic: $P2_1/n$; structure determined

$a = 5.533(1)$, $b = 10.409(2)$, $c = 9.306(2)$ Å, $\beta = 91.94(3)^\circ$
 4.865(100), 4.638(18), 4.525(32), 3.771(34),
 2.924(44), 2.759(31), 2.665(94), 1.733(36)

Type material is deposited in the mineralogical collections of the Museum of the Earth Sciences Department, University of Milano, catalogue number MCMGPG-H2018-001 (holotype), the Natural History Museum, Vienna, catalogue number O 571 (crystal used for the crystal structure determination), and the Laboratory of Mineralogy, University of

Liège, Belgium, catalogue number 21180 (crystal used for optical measurements)

How to cite: Cámara, F., Ciriotti, M.E., Kolitsch, U., Vignola, P., Hatert, F., Bittarello, E., Bracco, R. and Bortolozzi, G.M. (2018) Bonacinaite, IMA 2018-056. CNMNC Newsletter No. 45, October 2018, page 1040; *European Journal of Mineralogy*, **30**, 1037–1043.

IMA No. **2018-057**

Kruijenite
 $\text{Ca}_4\text{Al}_4(\text{SO}_4)\text{F}_2(\text{OH})_{16} \cdot 2\text{H}_2\text{O}$

Feuerberg quarry, Hinterweiler municipality, 7 km N of Daun, Eifel paleovolcanic region, Rhineland-Palatinate, Germany

Nikita V. Chukanov*, Natalia V. Zubkova, Günter Blass, Igor V. Pekov, Dmitry A. Varlamov, Dmitry I. Belakovskiy, Dmitry A. Ksenofontov, Sergey N. Britvin and Dmitry Y. Pushcharovsky

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

New structure type

Tetragonal: $P4/nnc$; structure determined

$a = 12.9299(4)$, $c = 5.2791(3)$ Å
 9.12(77), 4.565(100), 4.084(50), 2.964(74),
 2.694(27), 2.321(24), 2.284(29), 1.971(40)

Type material is deposited in the collections of the Fersman Mineralogical Museum, Russian Academy of Sciences, Leninskiy Prospekt 18-2, Moscow 119071, Russia, registration number 5233/1

How to cite: Chukanov, N.V., Zubkova, N.V., Blass, G., Pekov, I.V., Varlamov, D.A., Belakovskiy, D.I., Ksenofontov, D.A., Britvin, S.N. and Pushcharovsky, D.Y. (2018) Kruijenite, IMA 2018-057. CNMNC Newsletter No. 45, October 2018, page 1040; *European Journal of Mineralogy*, **30**, 1037–1043.

IMA No. **2018-058**

Erikjonssonite
 $(\text{Pb}_{32}\text{O}_{21})[(\text{V},\text{Si},\text{Mo},\text{As})\text{O}_4]_4\text{Cl}_9$

Kombat mine, Grootfontein district, Otjozondjupa region, Namibia

Nikita V. Chukanov*, Oleg I. Siidra, Yury S. Polekhovskiy, Igor V. Pekov, Dmitry A. Varlamov, Vera N. Ermolaeva and Alla A. Virus

*E-mail: nikchukanov@yandex.ru

Structurally and chemically related to hereroite

Monoclinic: $C2/c$; structure determined

$a = 23.200(5)$, $b = 22.708(5)$, $c = 12.418(3)$ Å, $\beta = 102.167(4)^\circ$
 3.501(24), 2.980(100), 2.794(45), 1.990(24),
 1.977(21), 1.762(20), 1.648(33), 1.598(18)

Type material is deposited in the collections of the Fersman Mineralogical Museum, Russian Academy of Sciences, Leninskiy Prospekt 18-2, Moscow 119071, Russia, registration number 5226/1

How to cite: Chukanov, N.V., Siidra, O.I., Polekhovskiy, Y.S., Pekov, I.V., Varlamov, D.A.,

Ermolaeva, V.N. and Virus, A.A. (2018) Erikjonnite, IMA 2018-058. CNMNC Newsletter No. 45, October 2018, page 1040; *European Journal of Mineralogy*, **30**, 1037–1043.

IMA No. **2018-059**

Demagistrisite
BaCa₂Mn₄³⁺(Si₃O₁₀)(Si₂O₇)(OH)₄·3H₂O
Cerchiara mine, Liguria, Italy (44.19944°N, 9.70028°E)

Anthony R. Kampf*, Fernando Cámara, Fabrizio Nestola, Marco E. Ciriotti and Corrado Balestra

*E-mail: akampf@nhm.org

New structure type

Orthorhombic: *Amm*2; structure determined
 $a = 16.3160(6)$, $b = 6.1830(2)$, $c = 9.0740(3)$ Å
16.21(49), 4.86(44), 4.34(56), 3.196(43), 2.871(54), 2.731(100), 2.671(74), 2.426(51)

Type material is deposited in the mineralogical collections of the Museum of the Earth Sciences Department, Università di Milano, Via Mangiagalli 34, 20133 Milano, Italy, registration number MCMGPG-H2018-004 (holotype), and the Natural History Museum of Los Angeles County, 900 Exposition Boulevard, Los Angeles, CA 90007, USA, catalogue numbers 66942 and 66943 (cotype)

How to cite: Kampf, A.R., Cámara, F., Nestola, F., Ciriotti, M.E. and Balestra, C. (2018) Demagistrisite, IMA 2018-059. CNMNC Newsletter No. 45, October 2018, page 1041; *European Journal of Mineralogy*, **30**, 1037–1043.

IMA No. **2018-060**

Monteneveite
Ca₃Sb₂⁵⁺(Fe₂³⁺Fe²⁺)O₁₂
Monteneve (Schneeberg) mine, Passiria Valley, Bolzano Province, Trentino-Alto Adige (Südtirol), Italy (46°53'46"N, 11°10'46"E, ca. 2300 m a.s.l.)
Andreas Karlsson, Dan Holtstam, Luca Bindi, Paola Bonazzi and Matthias Konrad-Schmolke

*E-mail: andreas.karlsson@nrm.se

Garnet supergroup

Cubic: *Ia3d*

$a = 12.6093(2)$ Å
4.45(100), 3.147(60), 2.814(40), 2.571(80), 1.993(40), 1.683(60), 1.575(20), 1.409(20)

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 GEO-NRM #HS3903

How to cite: Karlsson, A., Holtstam, D., Bindi, L., Bonazzi, P. and Konrad-Schmolke, M. (2018) Monteneveite, IMA 2018-060. CNMNC Newsletter No. 45, October 2018, page 1041; *European Journal of Mineralogy*, **30**, 1037–1043.

IMA No. **2018-061**

Nataliakulikite
Ca₄Ti₂(Fe³⁺, Fe²⁺)(Si, Fe³⁺, Al)O₁₁
Negev desert, ca. 5 km SE of Arad, Hatrurim Basin, Israel (31°13'59"N, 35°16'27"E)

Victor V. Sharygin*, Grigory A. Yakovlev, Richard Wirth, Yurii V. Seryotkin, Ellina V. Sokol, Elena N. Nigmatulina, Nikolai S. Karmanov and Leonid A. Pautov

*E-mail: sharygin@ugm.nsc.ru

Perovskite supergroup

Orthorhombic: *Pnma*

$a = 5.254$, $b = 30.302$, $c = 5.488$ Å
15.151(19), 3.795(8), 2.744(23), 2.681(100), 2.627(26), 1.898(30), 1.894(22), 1.572(14)

Type material is deposited in the mineralogical collections of the Central Siberian Geological Museum, V.S. Sobolev Institute of Geology and Mineralogy, Siberian Branch of the RAS, prospekt Akademika Koptyuga 3, Novosibirsk 630090, Russia, catalogue number VII-101/1

How to cite: Sharygin, V.V., Yakovlev, G.A., Wirth, R., Seryotkin, Y.V., Sokol, E.V., Nigmatulina, E.N., Karmanov, N.S. and Pautov, L.A. (2018) Nataliakulikite, IMA 2018-061. CNMNC Newsletter No. 45, October 2018, page 1041; *European Journal of Mineralogy*, **30**, 1037–1043.

IMA No. **2018-062**

Breyite

Ca₃Si₃O₉

As inclusion within a diamond from the Sao Luiz placer deposits, Juina area, Mato Grosso State, Brazil

Frank Brenker, Fabrizio Nestola*, Lion Brenker, Luca Peruzzo, Luciano Secco and Jeffrey W. Harris

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

A polymorph of wollastonite

Triclinic: *P1̄*; structure determined

$a = 6.6970(4)$, $b = 9.2986(7)$, $c = 6.6501(4)$ Å,
 $\alpha = 83.458(6)$, $\beta = 76.226(6)$, $\gamma = 69.581(7)^\circ$
4.91(16), 3.13(29), 3.02(100), 2.89(80), 2.61(45), 2.53(19), 1.79(18), 1.66(20)

Type material is deposited in the mineralogical collections of the Museo di Mineralogia, University of Padova, Via Giotto 1, 35122 Padova, Italy, catalogue number MMP 20371

How to cite: Brenker, F., Nestola, F., Brenker, L., Peruzzo, L., Secco, L. and Harris, J.W. (2018) Breyite, IMA 2018-062. CNMNC Newsletter No. 45, October 2018, page 1041; *European Journal of Mineralogy*, **30**, 1037–1043.

IMA No. **2018-065**

Ferricrockbridgeite

(Fe_{0.67}³⁺□_{0.33})₂(Fe³⁺)₃(PO₄)₃(OH)₄(H₂O)

Palermo No.1 pegmatite, North Groton, Grafton Co., New Hampshire, USA (43°45.038'N, 71°53.378'W)
Ian E. Grey*, Anthony R. Kampf, Colin M. MacRae, John D. Cashion, Yesim Gozukara and Finlay L. Shanks

*E-mail: ian.grey@csiro.au

Rockbridgeite group

Orthorhombic: *Bbmm*; structure determined

$a = 13.853(1)$, $b = 16.928(1)$, $c = 5.1917(5)$ Å
6.994(21), 4.853(26), 3.615(24), 3.465(33),
3.424(39), 3.205(100), 2.774(22), 1.603(24)

Type material is deposited in the collections of the Mineralogical and Geological Museum, Harvard University, 20 Oxford Street, Cambridge, MA 02138, USA, catalogue number 95086

How to cite: Grey, I.E., Kampf, A.R., MacRae, C.M., Cashion, J.D., Gozukara, Y. and Shanks, F.L. (2018) Ferricrockbridgeite, IMA 2018-065. CNMNC Newsletter No. 45, October 2018, page 1041; *European Journal of Mineralogy*, **30**, 1037–1043.

IMA No. 2018-066

Udinaite

$\text{NaMg}_4(\text{VO}_4)_3$

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 a.s.l.)

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

*E-mail: igorpekov@mail.ru

Known synthetic analogue

Tetragonal: $\bar{I}42d$; structure determined

$a = 6.8011(2)$, $c = 19.184(1)$ Å
4.654(19), 4.294(22), 3.340(28), 3.003(48),
2.774(100), 2.747(17), 2.663(16), 1.699(26)

Type material is deposited in the collections of the Fersman Mineralogical Museum, Russian Academy of Sciences, Leninskiy Prospekt 18-2, Moscow 119071, Russia, registration number 5237/1

How to cite: Pekov, I.V., Zubkova, N.V., Koshlyakova, N.N., Belakovskiy, D.I., Vigasina, M.F., Agakhanov, A.A., Turchkova, A.G., Britvin, S.N., Sidorov, E.G. and Pushcharovsky, D.Y. (2018) Udinaite, IMA 2018-066. CNMNC Newsletter No. 45, October 2018, page 1042; *European Journal of Mineralogy*, **30**, 1037–1043.

IMA No. 2018-067

Arsenudinaite

$\text{NaMg}_4(\text{AsO}_4)_3$

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 a.s.l.)

Igor V. Pekov*, Natalia V. Zubkova, Natalia N. Koshlyakova, Dmitry I. Belakovskiy, Atali A. Agakhanov, Anna G. Turchkova, Sergey N. Britvin, Evgeny G. Sidorov and Dmitry Y. Pushcharovsky

*E-mail: igorpekov@mail.ru

Known synthetic analogue

Tetragonal: $\bar{I}42d$; structure determined

$a = 6.8022(2)$, $c = 19.1843(6)$ Å
4.657(26), 4.300(24), 3.341(29), 3.007(46),
2.775(100), 2.750(17), 2.663(17), 1.698(27)

Type material is deposited in the collections of the Fersman Mineralogical Museum, Russian Academy of Sciences, Leninskiy Prospekt 18-2, Moscow 119071, Russia, registration number 5238/1

How to cite: Pekov, I.V., Zubkova, N.V., Koshlyakova, N.N., Belakovskiy, D.I., Agakhanov, A.A., Turchkova, A.G., Britvin, S.N., Sidorov, E.G. and Pushcharovsky, D.Y. (2018) Arsenudinaite, IMA 2018-067. CNMNC Newsletter No. 45, October 2018, page 1042; *European Journal of Mineralogy*, **30**, 1037–1043.

IMA No. 2018-068

Carletonmooreite

Ni_3Si

Norton County meteorite, fall in Norton Co., Kansas, USA

Chi Ma*, Laurence A.J. Garvie and Axel Wittmann

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

A new member of silicide minerals

Cubic: *Pm3m*

$a = 3.51$ Å
3.510(8), 2.026(100), 1.755(49), 1.241(31),
1.058(34), 1.013(10), 0.805(11), 0.785(10)

Type material is deposited in the Carleton B. Moore Meteorite Collection of the Center for Meteorite Studies, Arizona State University, Tempe, Arizona 85287, USA, specimen NC12

How to cite: Ma, C., Garvie, L.A.J. and Wittmann, A. (2018) Carletonmooreite, IMA 2018-068. CNMNC Newsletter No. 45, October 2018, page 1042; *European Journal of Mineralogy*, **30**, 1037–1043.

IMA No. 2018-069

Falgarite

$\text{K}_4(\text{VO})_3(\text{SO}_4)_5$

Kuhi-Malik gorge near Ravat kishlak, right bank of the Yagnob River, Fan-Yagnob coal deposit outline, ca. 100 km N of Dushanbe, Tajikistan (39°11'02"N, 68°35'11"E)

Leonid A. Pautov*, Mirak A. Mirakov, Oleg I. Siidra, Evgeny V. Nazarchuk, Abdulkhak R. Faiziev and Vladimir Y. Karpenko

*E-mail: pla58@mail.ru

Known synthetic analogue

Monoclinic: *C2/c*; structure determined

$a = 8.709(1)$, $b = 16.146(2)$, $c = 14.450(2)$ Å, $\beta = 106.785(4)^\circ$

4.26(40), 3.52(40), 3.34(40), 3.20(70), 3.17(80), 3.14(70), 3.01(50), 2.881(100)

Type material is deposited in the collections of the Fersman Mineralogical Museum, Russian Academy of Sciences, Leninskiy Prospekt 18-2, Moscow 119071, Russia, registration number 5234/1

How to cite: Pautov, L.A., Mirakov, M.A., Siidra, O.I., Nazarchuk, E.V., Faiziev, A.R. and Karpenko, V.Y. (2018) Falgarite, IMA 2018-069. CNMNC Newsletter No. 45, October 2018, page 1042; *European Journal of Mineralogy*, **30**, 1037–1043.

IMA No. 2018-070

Alterite

$\text{Zn}_2\text{Fe}_4^{3+}(\text{SO}_4)_4(\text{C}_2\text{O}_4)_2(\text{OH})_4 \cdot 17\text{H}_2\text{O}$

Near the Cliff Dwellers Lodge, Vermillion Cliffs, Coconino Co., Arizona, USA (36°43'1.3"W, 111°47'36"W)

Hexiong Yang*, Ronald B. Gibbs, Stanley H. Evans, Robert T. Downs and Zak Jabrin

*E-mail: hyang@email.arizona.edu

New structure type

Monoclinic: $C2/c$; structure determined

$a = 16.7696(5)$, $b = 9.4020(2)$, $c = 25.3466(8)$ Å, $\beta = 108.252(1)^\circ$

5.848(100), 4.589(36), 4.363(46), 4.189(57), 4.127(50), 3.898(39), 3.701(80), 2.663(46)

Type material is deposited in the collections of the University of Arizona Mineral Museum, 1601 E University Blvd, Tucson, AZ 85719, USA, catalogue # 22041, and the RRUFF Project, deposition # R180005

How to cite: Yang, H., Gibbs, R.B., Evans, S.H., Downs, R.T. and Jabrin, Z. (2018) Alterite, IMA 2018-070. CNMNC Newsletter No. 45, October 2018, page 1043; *European Journal of Mineralogy*, **30**, 1037–1043.

IMA No. 2018-072

Crowningshieldite

$(\text{Ni}_{0.9}\text{Fe}_{0.10})\text{S}$

As inclusion within a diamond from the Letseng mine, Lesotho (29°0'01"S, 28°51'43"E, 3100 m a.s.l.)

Evan M. Smith, Fabrizio Nestola*, Leonardo Pasqualetto, Federico Zorzi, Luciano Secco and Wuyi Wang

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

Known synthetic analogue

Hexagonal: $P6_3/mmc$

$a = 3.44(1)$, $c = 5.36(1)$ Å

2.978(53), 2.693(17), 2.608(35), 1.992(100), 1.718(55), 1.453(7), 1.332(7), 1.304(17)

Type material is deposited in the collections of the Mineralogical Museum, University of Padova, Via Giotto 1, I-35121, Padova, Italy, catalogue number MM 20501 (holotype), and the Gemological Institute of America Museum, Carlsbad, California 92008, USA (cotype)

How to cite: Smith, E.M., Nestola, F., Pasqualetto, L., Zorzi, F., Secco, L. and Wang, W. (2018) Crowningshieldite, IMA 2018-072. CNMNC Newsletter No. 45, October 2018, page 1043; *European Journal of Mineralogy*, **30**, 1037–1043.

NOMENCLATURE PROPOSALS APPROVED IN AUGUST 2018

IMA 18-D: Redefinition of the ideal formulae for mottanaite-(Ce) and ciprianiite

The proposal 18-D is accepted. Accordingly, the ideal formula of mottanaite-(Ce) is changed from $\text{Ca}_4(\text{Ce},\text{Ca})_2\text{AlBe}_2[\text{B}_4\text{Si}_4\text{O}_{22}]\text{O}_2$ to $\text{Ca}_4\text{Ce}_2\text{Al}(\text{Be}_{1.5}\square_{0.5})_{\Sigma 2}[\text{B}_4\text{Si}_4\text{O}_{22}]\text{O}_2$, and the ideal formula of ciprianiite is changed from $\text{Ca}_4[(\text{Th},\text{U})\text{REE}]_{\Sigma 2}\text{Al}\square_2[\text{B}_4\text{Si}_4\text{O}_{22}](\text{OH})_2$ to $\text{Ca}_4[(\text{Th},\text{U})\text{Ca}]_{\Sigma 2}\text{Al}(\text{Be}_{0.5}\square_{1.5})_{\Sigma 2}[\text{B}_4\text{Si}_4\text{O}_{22}](\text{OH})_2$.