NEW MINERALS APPROVED IN 2010
NOMENCLATURE MODIFICATIONS APPROVED IN 2010
BY THE
COMMISSION ON NEW MINERALS, NOMENCLATURE AND CLASSIFICATION
INTERNATIONAL MINERALOGICAL ASSOCIATION

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The information given here is provided by the Commission on New Minerals and Mineral Names, I.M.A., for comparative purposes and as a service to mineralogists working on new species.

Formerly, each mineral was described in the following format:

IMA number
Type locality
Corresponding author
Chemical formula
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

The name of the approved species was considered confidential information until the authors have published their descriptions or released information themselves.

Early in 2010 the Commission completed voting on proposal 09-D (The Early Publication of New Mineral Names). This has resulted in a change to the release of information concerning recently approved minerals. The change is as follows.

1. **Authors may elect to the release of the following list of data, with the exception of the mineral name, which will remain confidential until publication.**
2. **Authors may elect to permit the release of the mineral name upon approval and the other data given in the list below.**

IMA number
Mineral name, optional

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.

NO OTHER INFORMATION WILL BE RELEASED BY THE COMMISSION

2009 PROPOSALS

IMA No. **2009-076**
Sebastião Cristino pegmatite, near Mendes Pimentel and Linópolis, Minas Gerais, Brazil (18°42'S 41°27'W)
Frédéric Hatert
$Na_2Fe^{2+}MgAl(PO_4)_3$
Wyllieite group
Monoclinic: $P2_1/n$; structure determined
a 11.910(2), *b* 12.383(3), *c* 5.1798(1) Å, β 114.43(3)º
3.468(35), 3.047(100), 2.849(80), 2.810(35), 2.711(40), 2.688(90), 2.500(40), 2.074(30)

IMA No. **2009-077**
Maria Catalina mine, Tierra Amarilla, Chile (22°3'S 68°30' W)
Hexiong Yang
$Ca_2Cu(AsO_4)_2 \cdot 2H_2O$
Roselite group
Monoclinic: $P2_1/c$; structure determined
a 5.8618(2), *b* 12.7854(5), *c* 5.7025(2) Å, β 109.425(2)º
5.087(42), 4.177(59), 3.800(41), 3.377(92), 3.190(56), 2.983(89), 2.827(100), 2.114(49)

IMA No. **2009-078**
Grubependity Lake cirque (кар озера Грубепендиты), Grubependity Lake,Maldynyrd range, Kozhim River basin, Prepolar Ural, Komi Republic, Russia, several kilometres from the Chudnoe Pd–Au–Cr deposit
Stuart J. Mills
$LaAl_3(AsO_4)_2(OH)_6$
Alunite supergroup
Trigonal: $R\bar{3}m$; structure determined
a 7.0316(3), *c* 16.5151(8) Å
5.755(27), 3.538(55), 2.982(100), 2.211(28), 2.179(19), 1.914(38), 1.767(24), 1.298(18)

IMA No. **2009-080**

Prasolovskoe gold deposit, Kunashir Island, Kurile Islands, Russian Federation (44°23'N 146°01'E)
Vladimir A. Kovalenker
Ag_8Te_3Se
New structure type
Trigonal: *R*3 or $R\bar{3}$
a = 15.812(2), *c* = 19.622(4) Å
3.727(20), 2.996(50), 2.510(30), 2.201(100), 2.152(20), 2.079(30), 2.046(20), 1.817(20)

IMA No. **2009-081**
Giftkiesstollen adit, Jáchymov, Czech Republic
Roman Skála
$K_4(UO_2)(CO_3)_3$
Known structure type
Monoclinic: *C*2/*c*; structure determined
a = 10.2380(2), *b* = 9.1930(2), *c* = 12.2110(3) Å, β = 95.108(2)°
6.061(55), 5.793(30), 5.087(57), 3.740(100), 3.393(44), 2.408(33), 2.281(52), 1.873(40)

IMA No. **2009-082**
Shiti barium deposit, Dabashan region, Shanxi Province, China (32°43'45" to 32°45'06"N 109°08'22" to 109°10'20"E)
Jiajun Liu
$Ba_2(Ca,Mg)(V^{3+},Al)_2(Si_4O_{10})(OH,F)_2O(CO_3)_2$
New structure type
Monoclinic: *Cc*; structure determined
a = 5.2050(12), *b* = 9.033(2), *c* = 32.077(8) Å, β = 93.49(8)°
15.87(7), 5.340(91), 4.010(10), 3.209(23), 2.676(100), 2.294(29), 2.008(11), 1.607(4)

IMA No. **2009-083**
Jeffrey Mine, Asbestos, Shipton Township, Richmond County, Quebec, Canada
Ralph Rowe
Ni_3Sn
Isostructural with auricupride
Cubic: *Pm*3*m*; structure determined
a = 3.7344(7) Å
3.728(27), 2.639(22), 2.155(100), 1.867(45), 1.671(10), 1.525(6), 1.320(25), 1.127(22)

IMA No. **2009-084**
Sabatini volcanic complex, Valle Biachella, Sacrofano community, Rome Province, Latium, Italy
Fabio Bellatreccia
$[Na_5Ca_2K](Si_6Al_6O_{24})(SO_4)_2 \cdot 0.33H_2O$
Cancrinite group
Trigonal: *R*32; structure determined
a = 12.8770(7), *c* = 95.244(6) Å
3.80(52), 3.72(100), 3.60(53), 3.58(60), 3.55(24), 3.23(65), 3.22(38), 2.65(100)

IMA No. **2009-085**
Verkhnee Espe deposit, Akjailyautas Mountains, Kazakhstan (48°03'-48°10'N 81°26'-81°29'E)
Frank C. Hawthorne

$NaNa_2(Mg_2Fe^{3+}{}_2Li)Si_8O_{22}F_2$
Amphibole group
Monoclinic: *C*2/*m*; structure determined
a = 9.8297(3), *b* = 17.9257(6), *c* = 5.2969(2) Å, β = 103.990(1)º
8.434(40), 4.464(30), 3.405(30), 3.137(20), 2.718(100), 2.541(20), 2.325(15), 2.166(20)

IMA No. **2009-086**
Vico volcanic complex, Capranica, Viterbo Province, Latium, Italy
Athos Maria Callegari
$KCaNaAl_4B_4Si_2O_{18}$
New structure type
Monoclinic: $P2_1/n$; structure determined
a = 4.8507(2), *b* = 16.6156(6), *c* = 20.5445(7) Å, β = 90.245(1)º
4.104(90), 3.424(83), 3.234(100), 3.119(32), 2.425(31), 2.405(37), 2.184(38), 1.564(30)

IMA No. **2009-087**
Silver Coin mine, Valmy, Humboldt County, Nevada, USA (40°55'44"N 117°19'26"W) and Huber open pit, Krásno, Czech Republic (50°06'N 12°48'E) (cotype localities)
Stuart Mills
$Ca_2Al_7(PO_4)_2(PO_3OH)_2(OH,F)_{15}\cdot 8H_2O$
New structure type
Trigonal: *P*321; structure determined
a = 6.988(1), *c* = 16.707(3) Å
16.739(100), 6.054(18), 5.687(13), 3.488(9), 2.967(45), 2.219(19), 1.896(13), 1.744(17)

IMA No. **2009-088**
The chromite deposits of Nausahi, Keonjhar District, Orissa, India
Frank C. Hawthorne
$NaCr_3(Al_4Mg_2)(Si_6O_{18})(BO_3)_3(OH)_3O$
Tourmaline group
Trigonal: *R*3*m*; structure determined
a = 16.036(1), *c* = 7.319(1) Å
6.487(60), 5.033(20), 4.642(20), 4.262(30), 4.010(50), 3.545(30), 3.013(35), 2.598(100)

IMA No. **2009-089**
Crabtree Emerald mine, Mitchell County, North Carolina, USA
Frank C. Hawthorne
$NaMg_3Al_6Si_6O_{18}(BO_3)_3(OH)_3F$
Tourmaline group
Trigonal: *R*3*m*; structure determined
a = 15.955(3), *c* = 7.153(2) Å
6.375(19), 3.998(22), 3.475(100), 2.961(60), 2.583(67), 2.392(14), 2.123(14), 2.043(19)

IMA No. **2009-090**
Upper Chegem volcanic structure, Kabardino-Balkaria, North Caucasus, Russia (43°17'N 43°6'E)
Evgeny V.Galuskin
$CaSnO_3$
Perovskite group
Orthorhombic: *Pbnm*; structure of synthetic analogue known

a = 5.56(3), *b* = 5.71(3), *c* = 7.943(3) Å
3.984(52), 3.970(19), 2.855(43), 2.812(100), 2.780(19), 1.992(13), 1.985(13), 1.640(13)

IMA No. **2009-091**
Tranomaro area, Fort Dauphini region, Madagascar
Roberta Oberti
$KCa_2(Mg_4Al)Si_6Al_2O_{22}F_2$
Amphibole group
Monoclinic: *C*2/*m*; structure determined
a = 9.9104(2), *b* = 17.9739(4), *c* = 5.3205(1) Å, β = 105.534(2)º
8.413(45), 3.374(31), 3.270(55), 3.133(100), 2.934(29), 2.809(47), 2.698(39), 1.647(29)

IMA No. **2009-092**
Mendeleevite-(Ce)
$Cs_6(REE_{22}Ca_6)(Si_{70}O_{175})(OH,F)_{14}(H_2O)_{21}$
Darai-Pioz alkaline massif, Darai-Pioz River, Tadzhikistan (39°27'N 70°43'E)
Leonid A. Pautov*, Atali A. Agakhanov, Elena Sokolova, Frank C. Hawthorne and Vladimir Yu. Karpenko
*E-mail: labfmm@rambler.ru
New structure type
Cubic: *Pm*3; structure determined
a = 21.9148(4) Å
15.53(3), 12.62(3), 10.95(10), 7.76(3), 4.08(3), 3.46(4), 3.097(5), 3.068(4)
Type material is deposited in the Fersman Mineralogical Museum, Moscow, Russia, registration number 3921/1.
How to cite: Pautov, L.A., Agakhanov, A.A., Sokolova, E., Hawthorne, F.C. and Karpenko, V.Yu. (2010) Mendeleevite-(Ce), IMA 2009-092, CNMNC Newsletter 2, April 2010, page 375; *Mineralogical Magazine*, **74**, 375-377.

IMA No. **2009-094**
Kirchhoffite
$CsBSi_2O_6$
Darai-Pioz alkaline massif, Darai-Pioz River, Tadzhikistan (39°27'N 70°43'E)
Atali A. Agakhanov*, Leonid A. Pautov, Elena Sokolova, Frank C. Hawthorne and Vladimir Yu. Karpenko
*E-mail: labfmm@rambler.ru
Boron analogue of tetragonal pollucite
Tetragonal: $I4_1/acd$; structure determined
a = 13.019(2), *c* = 12.900(2) Å
5.32(32), 3.48(82), 3.26(100), 2.770(67), 2.373(21), 2.294(41), 2.109(34), 1.768(22)
Type material is deposited in the Fersman Mineralogical Museum, Moscow, Russia, registration number 3923/1.
How to cite: Agakhanov, A.A., Pautov, L.A., Sokolova, E., Hawthorne, F.C. and Karpenko, V.Yu. (2010) Kirchhoffite, IMA 2009-094, CNMNC Newsletter 2, April 2010, page 376; *Mineralogical Magazine*, **74**, 375-377.

IMA No. **2009-095**
Aluminocoquimbite
$AlFe(SO_4)_3 \cdot 9H_2O$
“Grotta dell’allume”, Vulcano, Aeolian Islands, Italy

Francesco Demartin*, Carlo Castellano, Carlo Maria Gramaccioli and Italo Campostrini
*E-mail: francesco.demartin@unimi.it
Structurally related to coquimbite
Trigonal: $P\bar{3}1c$; structure determined
a = 10.7065(7), c = 17.3077(11) Å
9.251(100), 8.710(13), 5.310(83), 4.087(33), 3.365(13), 3.152(43), 2.112(17), 1.765(20)
Type material is deposited in the reference collection of the Dipartimento di Chimica Strutturale e Stereochimica Inorganica, University of Milan, specimen number 2009-03
How to cite: Demartin, F., Castellano, C., Gramaccioli, C.M. and Campostrini, I. (2010) Aluminocoquimbite, IMA 2009-095**.** CNMNC Newsletter 2, April 2010, page 376; *Mineralogical Magazine*, **74**, 375-377.

IMA No. **2009-097**
$FeCe(MoO_4)_3 \cdot 3H_2O$
Su Senargiu, Sarroch, Sardinia, Italy
Paolo Orlandi* and Elena Bonaccorsi
*E-mail: orlandi@dst.unipi.it
New structure type
Trigonal: $R\bar{3}$; average structure determined
a = 19.290(1), c = 47.251(5) Å
4.84(45), 4.12(8), 3.93(75), 3.42(100), 2.785(10), 1.825(15), 1.610(10), 1.340(12)
Type material is deposited in the reference collection of the Museo di Storia Naturale e del Territorio, University of Pisa, registration number 18911.
How to cite: Orlandi, P. and Elena Bonaccorsi, E. (2010), IMA 2009-097. CNMNC Newsletter 2, April 2010, page 376; *Mineralogical Magazine*, **74**, 375-377.

2010 PROPOSALS

IMA No. **2010-001**
Fluorokinoshitalite
$BaMg_3Al_2Si_2O_{10}F_2$
East Mine, Bayan Obo, Inner Mongolia, China (41º46'N 109º57'E)
Ritsuro Miyawaki*, Hidehiko Shimazaki, Masako Shigeoka, Kazumi Yokoyama, Satoshi Matsubara and Zhuming Yang
*E-mail: miyawaki@kahaku.go.jp
Mica group
Monoclinic: $C2/m$
a = 5.316(1), b = 9.208(2), c = 10.044(2) Å, β = 100.16(2)º
3.64(79), 3.37(100), 3.12(90), 2.89(82), 2.62(48), 2.16(60), 1.979(45), 1.656(48)
Type material is deposited in the National Museum of Nature and Science, Tokyo, registration number NSM-MF15354.
How to cite: Miyawaki, R., Shimazaki, H., Shigeoka, M., Yokoyama, K., Matsubara, S. and Yang, Z. (2010) Fluorokinoshitalite, IMA 2010-001. CNMNC Newsletter 2, April 2010, page 376; *Mineralogical Magazine*, **74**, 375–376.

IMA No. **2010-002**
Fluorotetraferriphlogopite
$KMg_3Fe^{3+}Si_3O_{10}F_2$
East Mine, Bayan Obo, Inner Mongolia, China (41º46'N 109º57'E)

Ritsuro Miyawaki*, Hidehiko Shimazaki, Masako Shigeoka, Kazumi Yokoyama, Satoshi Matsubara, Hisayoshi Yurimoto and Zhuming Yang
*E-mail: miyawaki@kahaku.go.jp
Mica group
Monoclinic: *C*2/*m*
a = 5.325(3), *b* = 9.217(5), *c* = 10.192(7) Å, β = 100.03(5)º
10.0(73), 3.39(58), 3.35(82), 3.15(64), 2.65(41), 2.62(100), 2.43(48), 1.536(52)
Type material is deposited in the National Museum of Nature and Science, Tokyo, registration number NSM-MF15361.
How to cite: Miyawaki, R., Shimazaki, H., Shigeoka, M., Yokoyama, K., Matsubara, S. and Yang, Z. (2010) Fluorotetraferriphlogopite, IMA 2010-002. CNMNC Newsletter 2, April 2010, page 376; *Mineralogical Magazine*, **74**, 375–376.

IMA No. **2010-003**
Murchisite
Cr_5S_6
Murchison meteorite
Chi Ma
E-mail: chi@gps.caltech.edu
Structure of synthetic phase is known
Trigonal: $P\bar{3}1c$
a = 5.982, *c* = 11.509 Å
4.724(27), 3.083(16), 2.991(62), 2.877(32), 2.654(77), 2.074(77), 1.727(82), 1.327(20)
Type material is deposited in the Smithsonian Institution's National Museum of Natural History, Washington, specimen number USNM 7507.
How to cite: Ma, C. (2010) Murchisite, IMA 2010-003. CNMNC Newsletter 2, April 2010, page 377; *Mineralogical Magazine*, **74**, 375–376.

IMA No. **2010-004**
Klajite
$MnCu_4(AsO_4)_2(AsO_3OH)_2 \cdot 9\text{-}10H_2O$
Lejtakna ("inclined adit") area, Recsk, Lahóca Hill, Mátra Mountains, North Hungary
Sándor Szakáll*, Béla Fehér, Simona Bigi and Ferenc Mádai
*E-mail: askszs@uni-miskolc.hu
Lindackerite group
Triclinic: $P\bar{1}$
a = 6.441(3), *b* = 7.983(4), *c* = 10.562(3) Å, α = 85.28(4), β = 80.63(5), γ = 84.80(4)º
10.39(100), 7.95(22), 3.956(27), 3.616(28), 3.110(24), 3.050(28), 2.916(64), 2.708(29)
Type material is deposited in the Herman Ottó Museum, Miskolc, catalogue number 2010.1, and the Hungarian Natural History Museum, Budapest, specimen number Gyn./1842
How to cite: Szakáll, S., Fehér, B., Bigi, S. and Mádai, F. (2010) Klajite, IMA 2010-004. CNMNC Newsletter 2, April 2010, page 377; *Mineralogical Magazine*, **74**, 375–376.

IMA No. **2010-005**
$Fe_4(SO_4)O_2(OH)_6 \cdot 2H_2O$
Cava del Ferro-Trimpello, Fornovolasco, Vergemoli, Apuan Alps, Tuscany, Italy
Cristian Biagioni*, Elena Bonaccorsi and Paolo Orlandi
E-mail: biagioni@dst.unipi.it
New structure type; known synthetic phase
Monoclinic: *C*2/*m*; structure determined

a = 16.085(2), *b* = 3.054(1), *c* = 10.929(2) Å, β = 93.78(1)º
8.03(s), 4.37(m), 3.989(m), 3.343(mw), 2.633(mw)
Type material is deposited in the Museo di Storia Naturale e del Territorio, University of Pisa, Via Roma 79, Calci (PI), Italy, catalogue number 19300
How to cite: Biagioni,C., Bonaccorsi, E. and Orland1, P. (2010) IMA 2010-005. CNMNC Newsletter 3, June 2010, page 577; *Mineralogical Magazine*, **74**, 577-579.

IMA No. **2010-006**
Hermannroseite
$CaCu(PO_4)(OH)$
Tsumeb mine, Tsumeb, Namibia
Jochen Schlüter* and Dieter Pohl
*E-mail: Jochen.Schlueter@uni-hamburg.de
Phosphate analogue of conichalcite
Orthorhombic: $P2_12_12_1$; structure determined
a = 7.328(7), *b* = 5.769(6), *c* = 9.123(7) Å
5.710(56), 4.057(37), 3.663(21), 3.092(63), 2.854(29), 2.808(100), 2.571(73), 2.525(36)
Type material is deposited in the Mineralogical Museum of the University of Hamburg, Hamburg, specimen number TS 637
How to cite: Schlüter, J. and Pohl, D. (2010) Hermannroseite, IMA 2010-006. CNMNC Newsletter 3, June 2010, page 578; *Mineralogical Magazine*, **74**, 577-579.

IMA No. **2010-007**
Greenwoodite
$(Ba,V^{3+}O)_2V^{3+}{}_9(Fe^{3+},Fe^{2+})_2Si_2O_{22}$
Wigwam deposit, Akolkolex River area British Columbia, Canada (50º52'48"N 117º58'04"W)
Paul R. Bartholomew*, Franco Mancini, George E. Harlow, Christopher Cahill, Nicholas Deifel and Heinz-Jürgen Bernhardt
*E-mail: pbartholomew@newhaven.edu
New structure type
Trigonal: $P\bar{3}m1$; structure determined
a = 5.7500(6), *c* = 14.4590(9) Å
2.925(100), 2.875(38), 2.672(23), 2.469(35), 2.354(28), 2.212(28), 1.669(26), 1.438(35)
Type material is deposited in the American Museum of Natural History, New York, catalogue number 109839
How to cite: Bartholomew, P.R., Mancini, F., Harlow, G.E., Cahill, C., Deifel, N. and Bernhardt, H.-Z. (2010) Greenwoodite, IMA 2010-007. CNMNC Newsletter 3, June 2010, page 578; *Mineralogical Magazine*, **74**, 577-579.

IMA No. **2010-008**
Cuprokalininite
$CuCr_2S_4$
Pereval marble quarry, near Sludyanka, Irkutsk region, Siberia, Russia (51°37'N 103°38'E)
L.Z. Reznitsky, E.V. Sklyarov, Z.F. Ushchapovskaya, L.F. Suvorova, Yu.S. Polekhovsky, P. Dzierzanowski and Igor G. Barash*
*E-mail: garry@crust.irk.ru
Thiospinel
Cubic: $Fd\bar{3}m$; known structure type
a = 9.814(2) Å
3.44(6), 2.94(10), 2.44(6), 1.884(9), 1.731(10), 1.133(6), 1.098(6), 1.030(6), 1.002(10)

Type material is deposited in the Fersman Mineralogical Museum of the Russian Academy of Sciences, specimen number 3886/1-3

How to cite: Reznitsky, L.Z., Sklyarov, E.V., Ushchapovskaya, Z.F., Suvorova, L.F., Polekhovsky, Yu.S., Dzierzanowski, P. and Barash, I.G. (2010) Cuprokalininite, IMA 2010-008. CNMNC Newsletter 33, June 2010, page 578; *Mineralogical Magazine*, **74**, 577-579.

IMA No. **2010-009**

Natropharmacoalumite

$NaAl_4(AsO_4)_3(OH)_4 \cdot 4H_2O$

Maria Josefa mine, near Rodalquilar, Andalusia region, Spain (36°51'30N 2°5'2W)

Mike S. Rumsey*, Stuart J. Mills and John Spratt

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

Pharmacosiderite group

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

a = 7.7280(3) Å

7.759(100), 4.473(40), 3.870(50), 3.459(6), 3.158(6), 2.736(6), 2.446(9), 2.331(12)

Type material is deposited in the Natural History Museum in London, specimen number BM 2009,161

How to cite: Mike S. Rumsey, M.S., Mills, S.J. and Spratt, J. (2010) Natropharmacoalumite, IMA 2010-009. CNMNC Newsletter 3, June 2010, page 578; *Mineralogical Magazine*, **74**, 577-579.

IMA No. **2010-010**

Naquite

FeSi

Orebody 31, Luobusa mining district, Qusong County, Tibet (29°5'N 92°5'E)

Shi Ni-cheng*, Li Guo-wu, Bai Wen-ji, Xiong Ming, Yang Jing-su, Fang Qing-son, Ma Zhe-sheng and Rong He

*E-mail: shinicheng@vip.sina.com

Known structure type

Cubic: $P2_13$

a = 4.486(4) Å

3.174(43), 2.592(46), 2.249(25), 2.008(100), 1.831(69), 1.353(28), 1.199(38)

Type material is deposited in the Institute of Geology, Chinese Academy of Geological Sciences, Beijing, People's Republic of China, catalogue number 97-8-2

How to cite: Shi, N.-C., Li, G.-W., Bai, W.-J., Xiong, M., Yang, J.-S., Fang, Q.-S., Ma, Z.-S. and Rong, H. (2010) Naquite, IMA 2010-010. CNMNC Newsletter 3, June 2010, page 578; *Mineralogical Magazine*, **74**, 577-579.

IMA No. **2010-011**

Linzhiite

$FeSi_2$

Orebody 31, Luobusa mining district, Qusong County, Tibet (29°5'N 92°5'E)

Li Guo-wu[1]*, Shi Ni-cheng[1], Bai Wen-ji[2], Xiong Ming[1], Fang Qing-son[2] and Ma Zhe-sheng[1]

*E-mail: liguowu@126.com

Known synthetic compound

Tetragonal: $P4/mmm$; structure determined

a = 2.725(3), c = 5.202(10) Å

5.150(95), 2.373(66), 1.895(61), 1.848(100), 1.776(11), 1.704(13), 1.340(15), 1.086(19)

Type material is deposited in the Institute of Geology, Chinese Academy of Geological Sciences, Beijing, People's Republic of China, catalogue number 97-6

How to cite: Li, G.-W., Shi, N.-C., Bai, W.-J., Xiong, M., Fang, Q.-S. and Ma, Z.-S. (2010) Linzhiite, IMA 2010-011. CNMNC Newsletter 3, June 2010, page 579; *Mineralogical Magazine*, **74**, 577-579.

IMA No. **2010-012**

Coralloite

$Mn^{2+}Mn^{3+}{}_2(AsO_4)_2(OH)_2 \cdot 4H_2O$

Monte Nero mine, Rocchetta Vara, La Spezia, Liguria, Italy

Athos Maria Callegari*, Massimo Boiocchi, Marco E. Ciriotti and Corrado Balestra

*E-mail: athosmaria.callegari@unipv.it

Related to arthurite and whitmoreite

Triclinic: *P*1

a = 5.5828(7), *b* = 9.7660(13), *c* = 5.5455(7) Å, α = 94.467(3), β = 111.348(2), γ = 93.85(2)º

9.710(100), 5.166(77), 5.136(80), 3.342(65), 3.324(34), 2.873(22), 2.631(23), 2.565(22)

Type material is deposited in the Mineralogical Museum of the University of Pavia, catalogue number 2010/001

How to cite: Callegari, A.M., Boiocchi, M., Ciriotti, M.E. and Balestra, C. (2010) Coralloite, IMA 2010-012. CNMNC Newsletter 3, June 2010, page 579; *Mineralogical Magazine*, **74**, 577-579.

IMA No. **2010-014**

Hydroniumpharmacosiderite

$(H_3O)Fe_4(AsO_4)_3(OH)_4 \cdot 4H_2O$

Cornwall, United Kingdom, probably from a mine in the St Day mines, Wheal Gorland group

Stuart J. Mills*, Anthony R. Kampf, Peter A. Williams, Peter Leverett, Glenn Poirier, Mati Raudsepp and Carl A. Francis

*E-mail: smills@eos.ubc.ca

Pharmacosiderite group

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

a = 7.9587(2) Å

8.050(100), 4.628(22), 4.005(14), 3.265(35), 2.830(23), 2.528(19), 2.412(30), 1.787(14)

Type material is deposited in the Harvard Mineralogical Museum, catalogue number 142784

How to cite: Mills, S.J., Kampf, A.R., Williams, P.A., Leverett, P., Poirier, G. , Raudsepp, M. and Francis, C.A. (2010) Hydroniumpharmacosiderite, IMA 2010-014. CNMNC Newsletter 3, June 2010, page 579; *Mineralogical Magazine*, **74**, 577-579.

IMA No. **2010-016**

Cranswickite

$MgSO_4 \cdot 4H_2O$

Small workings 1 km ESE of Calingasta, Argentina (31º20.351'S 69 23.546'W)

Ronald C. Peterson

*E-mail: peterson@geol.queensu.ca

New structure type; dimorphous with starkeyite; unnamed mineral UM1999-28-SO:HMg

Monoclinic: *Cc*; structure determined

a = 11.9172(4), *b* = 5.1704(1), *c* =12.1880(3) Å, β = 117.538(2)º

5.284(100), 4.621(33), 3.983(25), 3.940(49), 3.176(50), 3.127(24), 2.575(26), 1.952(22)

Type material is deposited in the Royal Ontario Museum, Toronto, accession number 55368

How to cite: Peterson, R.C. (2010) Cranswickite, IMA 2010-016. CNMNC Newsletter 4, August 2010, page 773; *Mineralogical Magazine*, **74**, 773-776.

IMA No. **2010-017**
Tashelgite
$CaMgFe^{2+}Al_9O_{16}(OH)$
Tashelginskoe formation, Tashelga River, Gornaya Shoriya, Kemerovskaya Oblast, Russia (53°22'60.3"N 88°17'7.1"E)
Nikita V. Chukanov
*E-mail: chukanov@icp.ac.ru
New structure type
Monoclinic: *Pc*; structure determined
a = 5.6973(1), *b* = 17.1823(4), *c* = 23.5718(5) Å, β = 90.046(3)º
11.79(48), 2.845(43), 2.616(100), 2.584(81), 2.501(39), 2.437(44), 2.406(61), 2.202(72)
Type material is deposited in the Fersman Mineralogical Museum of the Russian Academy of Sciences, registration number 3983/1
How to cite: Ananyev, S.A., Konovalenko, S.I., Rastsvetaeva, R.K., Aksenov, S.M., Chukanov, N.V., Sapozhnikov, A.N. and Zagorskii, V.E. (2010) Tashelgite, IMA 2010-017. CNMNC Newsletter 4, August 2010, page 774; *Mineralogical Magazine*, **74**, 773-776.

IMA No. **2010-018**
Laurentianite
$Na_3Nb_3Si_4O_{17}\cdot 9H_2O$
Poudrette Quarry, Mont Saint-Hilaire, Rouville County, Quebec, Canada
Monika M. Haring*, Andrew M. McDonald, Glenn Poirier and Mark A. Cooper
*E-mail: mx_haring@laurentian.ca
New structure type
Trigonal: *P*3; structure determined
a = 9.9440(1), *c* = 7.0010(1) Å
8.608(100), 7.005(19), 4.312(25), 4.062(13), 3.675(25), 3.260(31), 2.870(20), 1.836(14)
The holotype is deposited in the collections of the Royal Ontario Museum, Toronto, Canada, catalogue number M55369
How to cite: Haring, M.M., McDonald, A.M., Poirier, G. and Cooper, M.A. (2010) Laurentianite, IMA 2010-018. CNMNC Newsletter 4, August 2010, page 774; *Mineralogical Magazine*, **74**, 773-776.

IMA No. **2010-019**
Hydroxylchondrodite
$Mg_5(SiO_4)_2(OH)_2$
Perovskitovaya Kop', Chuvashskie Mountains, Zlatoust district, South Urals, Russia
Igor V. Pekov*, Ekaterina I. Gerasimova, Nikita V. Chukanov, Yuriy K. Kabalov, Natalia V. Zubkova, Aleksandr E. Zadov, Vasiliy O. Yapaskurt, Viktor M. Gekimyants and Dmitry Yu. Pushcharovsky
*E-mail: igorpekov@mail.ru
Hydroxyl analogue of chondrodite
Monoclinic: $P2_1/c$; structure determined
a = 7.8847(12), *b* = 4.7235(8), *c* = 10.2869(15) Å, β = 109.19(1)º
3.023(36), 2.763(37), 2.673(37), 2.621(44), 2.518(59), 2.260(74), 1.740(100), 1.489(46)

Type material is deposited in the Fersman Mineralogical Museum of the Russian Academy of Sciences, Moscow, Russia, registration number 3986/1

How to cite: Pekov, I.V., Gerasimova, E.I., Chukanov, N.V., Kabalov, Y.K., Zubkova, N.V., Zadov, A.E., Yapaskurt, V.O., Gekimyants, V.M. and Pushcharovsky, D.Y. (2010) Hydroxylchondrodite, IMA 2010-019. CNMNC Newsletter 4, August 2010, page 774; *Mineralogical Magazine*, **74**, 773-776.

IMA No. **2010-020**

Barlowite

$Cu_4BrF(OH)_6$

Great Australia mine, Cloncurry, Queensland, Australia

Peter Elliott* and Mark A. Cooper

*E-mail: peter.elliott@adelaide.edu.au

Isostuctural with claringbullite

Hexagonal: $P6_3/mmc$; structure determined

a = 6.6786(2), c = 9.2744(3) Å

5.790(100), 3.338(15), 2.889(40), 2.759(15), 2.707(55), 2.452(40), 1.778(20), 1.668(30)

Type material is deposited in the South Australian Museum, Adelaide, South Australia, registration number G17449

How to cite: Elliott, P. and Cooper, M.A. (2010) Barlowite, IMA 2010-020. CNMNC Newsletter 4, August 2010, page 774; *Mineralogical Magazine*, **74**, 773-776.

IMA No. **2010-021**

Argandite

$Mn_7(VO_4)_2(OH)_8$

Pipjitälli, Turtmanntal, Western Swiss Alps, Switzerland

Peter Elliott*, Joël Brugger, Nicolas Meisser, Stefan Ansermet and Tom Caradoc-Davies

*E-mail: peter.elliott@adelaide.edu.au

V analogue of allactite

Monoclinic: $P2_1/n$; structure determined

a = 5.498(2), b = 12.265(3), c = 10.092(2) Å, β = 95.594(3)°

3.708(50), 3.395(60), 3.074(100), 2.945(50), 2.687(70), 2.522(50), 2.324(40), 1.791(40)

Type material is deposited in the Geological Museum, Lausanne, Switzerland, registration number MGL90369

How to cite: Elliott, P., Brugger, J., Meisser, N., Ansermet, S. and Caradoc-Davies, T. (2010) Argandite, IMA 2010-021. CNMNC Newsletter 4, August 2010, page 774; *Mineralogical Magazine*, **74**, 773-776.

IMA No. **2010-022**

Clinometaborite

HBO_2

La Fossa crater, Vulcano, Aeolian Islands, Italy

Italo Campostrini*, Francesco Demartin and Carlo Maria Gramaccioli

*E-mail: italo.campostrini@unimi.it

Dimorphous with metaborite; known synthetic phase and structure

Monoclinic: $P2_1/a$

a = 7.1215(3), b = 8.8448(4), c = 6.7665(3) Å, β = 93.233(4)°

6.752(165), 3.552(60), 3.219(57), 3.179(144), 3.074(1000), 1.848(42), 1.818(23), 1.695(35)

Type material is deposited in the reference collection of the DCSSI, University of Milan, sample number 2010-01

How to cite: Campostrini, I., Demartin, F. and Gramaccioli, C.M. (2010) Clinometaborite, IMA 2010-022. CNMNC Newsletter 4, August 2010, page 775; *Mineralogical Magazine*, **74**, 773-776.

IMA No. **2010-023**
Fluorocronite
PbF_2
Kupol'noe Ag–Sn deposit, Sarychev Range, Saha Republic, Russian Federation
Stuart J. Mills*, Pavel M. Kartashov, Gennadii N. Gamyanin, Pamela S. Whitfield, Arnt Kern, Hugues Guerault and Mati Raudsepp
*E-mail: smills@eos.ubc.ca
Pb analogue of fluorite
Cubic: $Fm\bar{3}m$
a = 5.947(3) Å
3.437(100), 2.976(46), 2.103(44), 1.794(42), 1.717(21), 1.366(20), 1.329(20), 1.214(19)
Type material is deposited in the collections of the Fersman Mineralogical Museum, Moscow, Russia, registration number 3987/1
How to cite: Mills, S.J., Kartashov, P.M., Gamyanin, G.N., Whitfield, P.S., Kern, A., Guerault, H. and Raudsepp, M. (2010) Fluorocronite, IMA 2010-023. CNMNC Newsletter 4, August 2010, page 775; *Mineralogical Magazine*, **74**, 773-776.

IMA No. **2010-025**
Ferroericssonite
$BaFe^{2+}{}_2Fe^{3+}O(Si_2O_7)(OH)$
Esquire #7 and #8 claims, Big Creek, Fresno County, California, USA
Anthony R. Kampf*, Andrew C. Roberts, Katherine E. Venance, Gail E. Dunning and Robert E. Walstrom
*E-mail: akampf@nhm.org
Fe^{2+} analogue of ericssonite
Monoclinic: $C2/m$; structure determined
a = 20.3459(10), b = 7.0119(3), c = 5.3879(4) Å, β = 94.874(7)°
3.708(43), 3.506(81), 3.027(38), 2.880(42), 2.788(100), 2.663(83), 2.126(55), 1.641(43)
Type material is deposited in the collections of the Natural History Museum of Los Angeles County, catalogue numbers 63206 (Esquire #7) and 63207 (Esquire #8)
How to cite: Kampf,A.R., Roberts,A.C., Venance,K.E., Dunning, G.E. and Walstrom, R.E. (2010) Ferroericssonite, IMA 2010-025. CNMNC Newsletter 4, August 2010, page 775; *Mineralogical Magazine*, **74**, 773-776.

IMA No. **2010-026**
Bohseite
$Ca_4Be_3AlSi_9O_{25}(OH)_3$
Ilímaussaq Alkaline Complex, Kangerdluarssuk fjord, Greenland
Henrik Friis*, Emil Makovicky, Mark T. Weller and Marie-Hélène Lemée-Cailleau
*E-mail: geofriis@yahoo.com
Forms a series with bavenite
Orthorhombic: $Cmcm$; structure determined
a = 23.183(1), b = 4.9709(3), c = 19.424(1) Å
4.189(28), 3.727(93), 3.396(34), 3.347(100), 3.239(79), 3.120(51), 3.039(28), 2.561(25)
Type material is deposited in the collections of the Natural History Museum of Denmark, catalogue number 1995.32

How to cite: Friis, H., Makovicky, E., Weller, M.T. and Lemée-Cailleau, M.-H. (2010) Bohseite, IMA 2010-026. CNMNC Newsletter 4, August 2010, page 775; *Mineralogical Magazine*, **74**, 773-776.

IMA No. **2010-027**
Sveinbergeite
$Ca(Fe^{2+}_6Fe^{3+})Ti_2(Si_4O_{12})_2O_2(OH)_5(H_2O)_4$
Buer, Vestern Island, Sandefjord, Vestfold County, Norway
A.P. Khomyakov*, F. Cámara, E. Sokolova and F.C. Hawthorne
*E-mail: noomin@mail.ru
Astrophyllite group
Triclinic: $P\bar{1}$; structure determined
a = 5.33(1), b = 11.82(2), c = 11.85(2) Å, α = 101.2(1), β = 98.2(1), γ = 102.5(2)º
11.148(20), 5.683(5), 3.799(43), 2.853(100), 2.633(7), 2.489(5), 2.267(5), 1.643(5)
Type material is deposited in the collections of the Fersman Mineralogical Museum, Moscow, Russia, catalogue number 3966
How to cite: Khomyakov, A.P., Cámara, F., Sokolova, E. and Hawthorne, F.C. (2010) Sveinbergeite, IMA 2010-027. CNMNC Newsletter 5, October 2010, page 899; *Mineralogical Magazine*, **74**, 899-902.

IMA No. **2010-028**
Plumboselite
$Pb_3O_2(SeO_3)$
Tsumeb mine, Tsumeb, Namibia
Anthony R. Kampf* Stuart J. Mills and William W. Pinch
*E-mail: akampf@nhm.org
New structure type
Orthorhombic: $Cmc2_1$; structure determined
a = 10.5384(11), b = 10.7452(13), c = 5.7577(7) Å
3.155(100), 2.886(22), 2.691(17), 2.197(12), 1.956(26), 1.886(13), 1.713(21), 1.271(17)
Type material is deposited in the collections of the Natural History Museum of Los Angeles County, California, USA, catalogue number 63264
How to cite: Kampf, A.R., Mills, S.J. and Pinch, W.W. (2010) Plumboselite, IMA 2010-028. CNMNC Newsletter 4, August 2010, page 776; *Mineralogical Magazine*, **74**, 773-776.

IMA No. **2010-029**
Aldridgeite
$(Cd,Ca)(Cu,Zn)_4(SO_4)_2(OH)_6\cdot 3H_2O$
Block 14 opencut, Broken Hill, New South Wales, Australia
Peter Elliott* and Allan Pring
*E-mail: peter.elliott@adelaide.edu.au
Cd analogue of serpierite
Monoclinic: $C2/c$
a = 22.049(2), b = 6.212(2), c = 21.839(2) Å, β = 113.19(3)º
10.167(100), 5.076(55), 3.380(35), 2.704(30), 2.645(60), 2.612(30), 2.439(50), 2.167(35)
Type material is deposited in the collections of the South Australian Museum, Adelaide, South Australia, registration number G33030
How to cite: Elliott, P. and Pring, A. (2010) Aldridgeite, IMA 2010-029. CNMNC Newsletter 4, August 2010, page 776; *Mineralogical Magazine*, **74**, 773-776.

IMA No. **2010-030**
Yancowinnaite
$PbCuAl(AsO_4)_2OH{\cdot}H_2O$
No. 3 lens, Kintore opencut, Broken Hill, New South Wales, Australia
Peter Elliott* and Allan Pring
*E-mail: peter.elliott@adelaide.edu.au
Tsumcorite group
Triclinic: $P\bar{1}$
a = 5.444(2), b = 5.640(2), c = 7.518(2) Å, α = 67.89(2), β = 69.48(2), γ = 70.18(2)º
4.590(35), 3.286(65), 2.949(100), 2.891(40), 2.850(45), 2.501(30), 2.492(80), 1.110(50)
Type material is deposited in the collections of the South Australian Museum, Adelaide, South Australia, registration number G33029
How to cite: Elliott, P. and Pring, A. (2010) Yancowinnaite, IMA 2010-030. CNMNC Newsletter 4, August 2010, page 776; *Mineralogical Magazine*, **74**, 773-776.

IMA No. **2010-031**
Eliseevite
$Na_{1.5}Li\{Ti_2O_2[Si_4O_{10.5}(OH)_{1.5}]\}{\cdot}2H_2O$
Mount Alluaiv and Mount Punkaruaiv, Lovozero massif, Kola Peninsula, Russia
Victor N. Yakovenchuk*, Gregory Yu. Ivanyuk, Sergey V. Krivovichev, Yakov A. Pakhomovsky, Ekaterina A. Selivanova, Julia A. Korchak, Yuri P. Men'shikov and Svetlana V. Drogobuzhskaya
*E-mail: yakovenchuk@geoksc.apatity.ru
Closely related to lintisite and punkaruaivite
Monoclinic: $C2/c$; structure determined
a = 27.48(1), b = 8.669(4), c = 5.246(2) Å, β = 90.782(8)º
13.76(10), 6.296(6), 4.642(4), 4.334(4), 3.577(8), 3.005(7), 2.881(7), 2.710(5)
Type material is deposited in the collections of the Mineralogical Museum of St Petersburg State University, Russia, and the Geological and the Mineralogical Museum of the Geological Institute of the Kola Science Centre, Apatity, Russia, catalogue number 6516
How to cite: Yakovenchuk, V.N., Ivanyuk, G.Y., Krivovichev, S.V., Pakhomovsky, Y.A., Selivanova, E.A., Korchak, J.A., Men'shikov, Y.P. and Drogobuzhskaya, S.V. (2010) Eliseevite, IMA 2010-031. CNMNC Newsletter 5, October 2010, page 900; *Mineralogical Magazine*, **74**, 899-902.

IMA No. **2010-033**
Parasterryite
$Ag_4Pb_{20}Sb_{14}As_{10}S_{58}$
Pollone mine, Valdicastello Carducci, Pietrasanta, Apuan Alps, Tuscany (43°57'N 10°16'E)
Yves Moëlo*, Paolo Orlandi, Catherine Guillot-Deudon, Cristian Biagioni, Werner H. Paar and Michel Evain
*E-mail: Yves.Moelo@cnrs-imn.fr
Expanded homologue of owyheeite
Monoclinic: $P2_1/c$; structure determined
a = 8.3965(5), b = 27.9540(7), c = 43.8840(13) Å, β = 90.061(12)º
3.62(100), 3.42(45), 3.35(95), 3.23(65), 3.01(45), 2.945(85), 2.885(80), 1.916(45)
Type material is deposited in the collections of the Museo di Storia Naturale e del Territorio, Università di Pisa, Italy, catalogue number 19347

How to cite: Moëlo, Y., Orlandi, P., Guillot-Deudon, C., Biagioni, C., Paar, W.H. and Evain, M. (2010) Parasterryite, IMA 2010-033. CNMNC Newsletter 5, October 2010, page 900; *Mineralogical Magazine*, **74**, 899-902.

IMA No. **2010-034**
Rickturnerite
$Pb_7O_4[Mg(OH)_4](OH)Cl_3$
Torr Works (Merehead) Quarry, Somerset County, UK
Mike S. Rumsey, Sergey V. Krivovichev*, Oleg I. Siidra, Caroline A. Kirk, Chris J. Stanley and John Spratt
*E-mail: skrivovi@mail.ru
New structure type
Orthorhombic: *Pnma*; structure determined
a = 25.879(3), *b* = 5.8024(6), *c* = 22.717(2) Å
6.474(100), 5.636(44), 3.254(28), 3.233(73), 3.112(31), 2.867(57), 2.635(25), 1.683(26)
Type material is deposited in the collections of the Natural History Museum, London, UK, registration number BM 2008,100
How to cite: Rumsey, M.S., Krivovichev, S.V., Siidra, O.I., Kirk, C.A., Stanley, C.J. and Spratt, J. (2010) Rickturnerite, IMA 2010-034. CNMNC Newsletter 5, October 2010, page 900; *Mineralogical Magazine*, **74**, 899-902.

IMA No. **2010-035**
Schüllerite
$Ba_2Na(Mn,Ca)(Fe^{3+},Mg,Fe^{2+})_2Ti_2(Si_2O_7)_2(O,F)_4$
Löhley, Üdersdorf, near Daun, Eifel Mountains, Rhineland-Palatinate, Germany
Nikita V. Chukanov*, Ramiza K. Rastsvetaeva, Sergey N. Britvin, Alla A. Virus, Dmitriy I. Belakovsky, Igor V. Pekov, Sergey M. Aksenov and Bernd Ternes
*E-mail: chukanov@icp.ac.ru
New structure type
Triclinic: *P*1; structure determined
a = 5.4027(2), *b* = 7.0656(2), *c* = 10.2178(3) Å, α = 99.816(2), β = 99.624(2), γ = 90.084(2)º
9.96(29), 3.308(45), 2.867(29), 2.791(100), 2.664(46), 2.609(36), 2.144(52), 2.110(31)
Type material is deposited in the collections of the Fersman Mineralogical Museum of the Russian Academy of Sciences, Moscow, Russia, registration numbers 3995/2 (holotype) and 3995/1
How to cite: Chukanov, N.V., Rastsvetaeva, R.K., Britvin, S.N., Virus, A.A., Belakovsky, D.I., Pekov, I.V., AksenovS.M. and Ternes, B. (2010) Schüllerite, IMA 2010-035. CNMNC Newsletter 5, October 2010, page 900; *Mineralogical Magazine*, **74**, 899-902.

IMA No. **2010-036**
Carlgieseckeite-(Nd)
$NaNdCa_3(PO_4)_3F$
Kuannersuit (formerly Kvanefjeld) Plateau, northern section of the Ilímaussaq alkaline complex, South Greenland, Denmark
Igor V. Pekov*, Natalia V. Zubkova, Tomas A. Husdal, Atali A. Agakhanov, Aleksandr E. Zadov and Dmitry Yu. Pushcharovsky
*E-mail: igorpekov@mail.ru
Apatite supergroup
Trigonal: $P\bar{3}$; structure determined
a = 9.4553(1), *c* = 6.9825(1) Å

7.02(22), 5.33(18), 3.923(27), 3.463(23), 3.095(19), 2.815(100), 2.727(42), 2.255(17)
Type material is deposited in the collections of the Fersman Mineralogical Museum of the Russian Academy of Sciences, Moscow, registration number 3996/1
How to cite: Pekov, I.V., Zubkova, N.V., Husdal, T.A., Agakhanov, A.A., Zadov, A.E. and Pushcharovsky, D.Y. (2010) Carlgieseckeite-(Nd), IMA 2010-036. CNMNC Newsletter 5, October 2010, page 901; *Mineralogical Magazine*, **74**, 899-902.

IMA No. **2010-037**
Rauchite
$Ni(UO_2)_2(AsO_4)_2 \cdot 10H_2O$
Belorechenskoye deposit, Adygea Republic, Northern Caucasus, Russia
Igor V. Pekov*, Viktor V. Levitskiy, Sergey V. Krivovichev, Andrey A. Zolotarev, Igor A. Bryzgalov, Aleksandr E. Zadov and Nikita V. Chukanov
*E-mail: igorpekov@mail.ru
Autunite group
Triclinic: $P\bar{1}$; structure determined
a = 7.100(3), b = 7.125(3), c = 10.751(4) Å, α = 106.855(7), β = 104.366(7), γ = 90.420(6)°
9.97(100), 4.936(64), 4.533(41), 3.539(93), 3.388(43), 2.488(27), 2.233(27), 1.581(16)
Type material is deposited in the collections of the Fersman Mineralogical Museum of the Russian Academy of Sciences, Moscow, registration number 3997/1
How to cite: Pekov, I.V., Levitskiy, V.V., Krivovichev, S.V., Zolotarev, A.A., Bryzgalov, I.A., Zadov, A.E. and Chukanov, N.V. (2010) Rauchite, IMA 2010-037. CNMNC Newsletter 5, October 2010, page 901; *Mineralogical Magazine*, **74**, 899-902.

IMA No. **2010-038**
Krotite
$CaAl_2O_4$
NWA 1934 carbonaceous chondrite
Chi Ma*, Anthony R. Kampf, Harold C. Connolly, Jr, John R. Beckett, George R. Rossman, Stuart A. Sweeney Smith and Devin L. Schrader
*E-mail: chi@gps.caltech.edu
Low-pressure $CaAl_2O_4$ dimorph
Monoclinic: $P2_1/n$; structure determined
a = 8.6996(3), b = 8.0994(3), c = 15.2170(11) Å, β = 90.188(6)°
4.694(28), 2.977(100), 2.527(35), 2.410(40), 1.927(22), 1.583(23), 1.528(31), 1.459(33)
Type material is deposited in the collections of the Natural History Museum of Los Angeles County, California, USA, catalogue number 63275
How to cite: Ma, C., Kampf, A.R., Connolly, Jr, H.C., Beckett, J.R., Rossman, G.R., Sweeney Smith, S.A. and Schrader, D.L. (2010) Krotite, IMA 2010-038. CNMNC Newsletter 5, October 2010, page 901; *Mineralogical Magazine*, **74**, 899-902.

IMA No. **2010-039**
Yttriaite-(Y)
Y_2O_3
Bol'shaya Pol'ya River, Prepolar Urals, Russia
Stuart J. Mills*, Pavel M. Kartashov, Ma, C., George R. Rossman, Margarita I. Novgorodova, Anthony R. Kampf and Mati Raudsepp
*E-mail: smills@eos.ubc.ca
Known structure type
Cubic: $Ia\bar{3}$

a = 10.6018(7) Å
4.328(12), 3.060(100), 2.650(25), 2.499(5), 2.260(5), 2.079(4), 1.874(41), 1.598(26)
Type material is deposited in the collections of the Mineral Sciences Department, Natural History Museum of Los Angeles County, registration number 63272
How to cite: Mills, S.J., Kartashov, P.M., Chi Ma, Rossman, G.R., Novgorodova, M.I., Kampf, A.R. and Raudsepp, M. (2010) Yttriaite-(Y), IMA 2010-039. CNMNC Newsletter 5, October 2010, page 901; *Mineralogical Magazine*, **74**, 899-902.

IMA No. **2010-040**
Nordgauite
$MnAl_2(PO_4)_2(F,OH)_2 \cdot 5.5H_2O$
Hagendorf South pegmatite (Hagendorf-Süd), Hagendorf, Oberpfalz, Bavaria, Germany
William D. Birch*, Ian E. Grey, Stuart J. Mills, Allan Pring and Erich Keck
*E-mail: bbirch@museum.vic.gov.au
New structure type
Triclinic: $P\bar{1}$
a = 9.920(4), *b* = 9.933(3), c = 6.087(2) Å, α = 92.19(3), β = 100.04(3), γ = 97.61(3)º
9.806(100), 7.432(40), 4.596(12), 4.119(20), 3.225(12), 3.215(12), 2.976(12), 2.951(16)
Type material is deposited in the collections of Museum Victoria (PO Box 666, Melbourne, Victoria, Australia), registered number M51231
How to cite: Birch, W.D., Grey, I.E., Mills, S.J., Pring, A. and Keck, E. (2010) Nordgauite, IMA 2010-040. CNMNC Newsletter 5, October 2010, page 901; *Mineralogical Magazine*, **74**, 899-902.

IMA No. **2010-041**
Bariopharmacoalumite
$Ba_{0.5}Al_4[(AsO_4)_3(OH)_4] \cdot 4H_2O$
Cap Garonne mine, Var, Provence-Alpes-Côte d'Azur, France
Stuart J. Mills*, Mike S. Rumsey, Georges Favreau, John Spratt and Maurizio Dini
*E-mail: smills@eos.ubc.ca
Pharmacosiderite group
Cubic: $P\bar{4}3m$; structure determined
a = 7.772(2) Å
7.759(100), 5.485(27), 4.454(18), 3.878(27), 3.456(14), 3.159(16), 2.738(16), 2.452(12)
Type material is deposited in the collections of the Natural History Museum, London, UK, registration number BM 2010,82
How to cite: Mills, S.J., Rumsey, M.S., Favreau, G., Spratt, J. and Dini, M. (2010) Bariopharmacoalumite, IMA 2010-041. CNMNC Newsletter 6, December 2010, page 941; *Mineralogical Magazine*, **74**, 941-942

IMA No. **2010-042**
Icosahedrite
$Al_{63}Cu_{24}Fe_{13}$
Iomrautvaam Massif, Listvenitovyi River, Khatyrka ultrabasic zone, Koryak Upland, Chukhotka Oblast, Russia
Luca Bindi*, Paul J. Steinhardt, Nan Yao and Peter J. Lu
*E-mail: luca.bindi@unifi.it
Known quasicrystal
Icosahedral: $Fm\bar{3}\bar{5}$

a_{6D} = 12.64 Å (six-dimensional notation)
3.75(20), 3.41(25), 3.24(20), 2.451(10), 2.108(90), 2.006(100), 1.452(15), 1.238(30); note that grains do not diffract as single crystals
Type material is deposited in the Mineralogical Collection of the Museo di Storia Naturale, Università di Firenze, Firenze. Italy, catalogue number 46407/G
How to cite: Bindi, L., Steinhardt, P.J., Yao, N. and Lu, P.J. (2010) Icosahedrite, IMA 2010-042. CNMNC Newsletter 6, December 2010, page 942; *Mineralogical Magazine*, **74**, 941-942

IMA No. **2010-043**
Törnroosite
$Pd_{11}As_2Te_2$
Inari commune, Lemmenjoki area, Miessijoki River, Finland (68°42'30"N 25°42'24"E)
Kari Kojonen*, Andrew M. McDonald, Chris J. Stanley and Bo Johanson
*E-mail: kari.kojonen@gtk.fi
Isostructural with isomertieite
Cubic: $Fd\bar{3}m$
a = 12.3530(4) Å
2.519(11), 2.376(90), 2.182(100), 1.862(13), 1.608(11), 1.544(14), 1.261(13), 0.825(11)
Type material is deposited in in the collections of the Natural History Museum, London, UK, registration number BM 2010,100
How to cite: Kojonen, K., McDonald, A.M., Stanley, C.J. and Johanson, B. (2010) Törnroosite, IMA 2010-043. CNMNC Newsletter 6, December 2010, page 942; *Mineralogical Magazine*, **74**, 941-942

IMA No. **2010-044**
Titanium
Ti
Orebody 31, Luobusa mining district, in Qusong County, Tibet (29°5'N 92°5'E)
Fang Qing-Song, Shi Ni-Cheng, Li Guo-Wu*, Bai Wen-Ji, Yang Jing-Sui, Xiong Ming, Rong He and Ma Zhe-Sheng
*E-mail: liguowu@126.com
Known structure type
Hexagonal: $P6_3/mmc$
a = 2.950(2), c = 4.686(1) Å
2.569(32), 2.254(100), 1.730(16), 1.478(21), 0.989(5), 0.9464(8), 0.9172(4), 0.8214(4)
Type material is deposited in the collections of the Institute of Geology, Chinese Academy of Geological Sciences, Beijing, P.R. Republic of China catalogue number 74-3
How to cite: Fang, Q.-S., Shi, N.-C., Li, G.-W., Bai, W.-J., Yang, J.-S., Xiong, M., Rong, H. and Ma, Z.-S. (2011) Titanium, IMA 2010-044. CNMNC Newsletter 7, February 2011, page 27; *Mineralogical Magazine*, **75**, 27-31

IMA No. **2010-045**
Hezuolinite
$(Sr,REE)_4Zr(Ti,Fe)_4Si_4O_{22}$
Saima alkaline intrusion, Liaoning Province, China (124º12'E 41º00'N)
Zhuming Yang*, Kuishou Ding, Gerald Giester and Ekkehart Tillmanns
*E-mail: yangzhm@mail.igcas.ac.cn
Perrierite - chevkinite group
Monoclinic: $C2/m$; structure determined

a = 13.973(3), *b* = 5.6984(11), *c* = 11.988(2) Å, β = 114.10(3)°
3.47(40), 3.02(90), 2.98(100), 2.84(70), 2.72(50), 2.51(50), 2.18(80), 1.96(90)
Type material is deposited in the collections of the Museum of Institute of Geology and Geophysics, Chinese Academy of Sciences, registration number KDX016
How to cite: Yang, Z., Ding, K., Giester, G. and Tillmanns, E. (2011) Hezuolinite, IMA 2010-045. CNMNC Newsletter No. 8, April 2011, page 289; *Mineralogical Magazine*, **75**, 289-294.

IMA No. **2010-046**
Běhounekite
$U(SO_4)_2(H_2O)_4$
Geschieber vein, Jáchymov, Czech Republic
Jakub Plášil*, Karla Fejfarová, Milan Novák, Michal Dušek, Jiří Sejkora, Radek Škoda, Jan Hloušek and Juraj Majzlan
*E-mail: jakub_plasil@nm.cz
Known structure type
Orthorhombic: *Pnma*; structure determined
a = 14.6464(3), *b* = 11.0786(3) , *c* = 5.6910(1) Å
7.330(100), 6.112(54), 5.538(21), 4.787(42), 3.663(17), 3.478(20), 3.080(41), 2.495(17)
Type material is deposited in the collections of the Department of Mineralogy and Petrology of the National Museum in Prague, catalogue number P1P 2/2010
How to cite: Plášil, J., Fejfarová, K., Novák, M., Dušek, M., Sejkora, J., Škoda, R., Hloušek, J. and Majzlan, J. (2011) Běhounekite, IMA 2010-046. CNMNC Newsletter 7, February 2011, page 28; *Mineralogical Magazine*, **75**, 27-31

IMA No. **2010-047**
Carlosbarbosaite
$(Ca_{0.5}\square_{0.5})(UO_2)_2(Nb^{5+}Si)O_6(OH)_2\cdot 2H_2O$
Jaguaraçu pegmatite, Jaguaraçu municipality, Minas Gerais, Brazil (19°38'57"S 42°44'59"W)
Daniel Atencio*, Andrew C. Roberts, Mark A. Cooper, Luiz A.D. Menezes Filho, José M.V. Coutinho, John A.R. Stirling, Neil A. Ball, Elizabeth Moffatt, Mário L.S.C. Chaves, Paulo R.G. Brandão and Antônio W. Romano
*E-mail: datencio@usp.br
New structure type
Orthorhombic: *Cmcm*; structure determined
a = 14.150(6), *b* = 10.395(4), *c* = 7.529(3) Å
8.405(80), 7.081(100), 4.201(90), 3.333(60), 3.053(80), 2.931(70), 2.803(60), 2.589(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 DR707
How to cite: Atencio, D., Roberts, A.C., Cooper, M.A., Menezes Filho, L.A.D., Coutinho, J.M.V., Stirling, J.A.R., Ball, N.A., Moffatt, E., Chaves, M.L.S.C., Brandão, P.R.G. and Romano, A.W. (2011) Carlosbarbosaite, IMA 2010-047. CNMNC Newsletter 7, February 2011, page 28; *Mineralogical Magazine*, **75**, 27-31

IMA No. **2010-048**
Tarbagataite
$(K\square)Ca(Fe^{2+},Mn)_7Ti_2(Si_4O_{12})_2O_2(OH)_5$
Verkhnee Espe deposit, Akjailyautas mountains, Kazakhstan (N 48°03'-48°10' E 81°26'-81°29'')
A.V. Stepanov, G.K. Bekenova, V.L. Levin, E. Sokolova*, and F.C. Hawthorn

*E-mail: elena_sokolova@umanitoba.ca
Astrophyllite group
Triclinic: $P\bar{1}$; structure determined
a = 5.3868(3), b = 11.9141(6), c = 11.7171(6) Å, α = 112.978(2), β = 94.641(2), γ = 103.189(2)°
4.095(80), 3.735(30), 3.497(50), 3.258(100), 2.858(80), 2.761(70), 2.646(30), 2.560(50)
Type material is deposited in the collections of the Geological Scientific Museum of the Satpaev Institute of Geological Sciences, Almaty, Kazakhstan, registration number 3009/2010
How to cite: Stepanov, A.V., Bekenova, G.K., Levin, V.L., Sokolova, E. and Hawthorn, F.C. (2011) Tarbagataite, IMA 2010-048. CNMNC Newsletter 7, February 2011, page 28; *Mineralogical Magazine*, **75**, 27-31

IMA No. **2010-049**
Steedeite
$Na_2ZrSi_3O_9 \cdot 2H_2O$
Poudrette Quarry, Mont Saint-Hilaire, Quebec, Canada
Monika M. Haring, Andrew M. McDonald*, Glenn Poirier and Mark A. Cooper
*E-mail: amcdonald@laurentian.ca
Catapleiite group
Trigonal: $P\bar{3}1c$; structure determined
a = 7.414(1), c = 10.096(2) Å
6.422(100), 5.414(65), 3.969(73), 3.065(69), 2.990(60), 2.713(41), 1.975(26), 1.856(27)
Type material is deposited in the collections of the Department of Natural History, Royal Ontario Museum, Toronto, Canada, catalogue number M55371
How to cite: Haring, M.M., McDonald, A.M., Poirier, G. and Cooper, M.A. (2011) Steedeite, IMA 2010-049. CNMNC Newsletter 7, February 2011, page 28; *Mineralogical Magazine*, **75**, 27-31

IMA No. **2010-050**
Veblenite
$KNa(Fe^{2+}{}_5Fe^{3+}{}_4Mn_7)Nb_4(Si_2O_7)_2(Si_8O_{22})_2O_6(OH)_{10}(H_2O)_3$
Ten Mile Lake, Seal Lake area, Labrador, Newfoundland, Canada
Fernando Cámara*, Elena Sokolova, Frank C. Hawthorne, Ralph Rowe, Joel Grice and Kim Tait
*E-mail: fernando.camaraartigas@unito.it
New structure type
Triclinic: $P\bar{1}$; structure determined
a = 5.3761(3), b = 27.5062(11), c = 18.6972(9) Å, α = 140.301(3), β = 93.033(3), γ = 95.664(3)°
18.204(22), 16.894(100), 11.661(8), 4.404(3), 4.271(9), 4.056(3), 3.891(2), 2.721(3)
The mineral is present in a holotype sample of niobophyllite housed in the collections of the Royal Ontario Museum, Toronto, Canada, catalogue number M26148
How to cite: Cámara, F., Sokolova, E., Hawthorne, F.C., Rowe, R., Grice, J. and Tait, K. (2011) Veblenite, IMA 2010-050. CNMNC Newsletter 7, February 2011, page 29; *Mineralogical Magazine*, **75**, 27-31

IMA No. **2010-051**
Markascherite

$Cu_3(MoO_4)(OH)_4$
Childs Aldwinkle mine, Bunker Hill District, Pinal County, Arizona, USA (32°45'07" N 110°28'55")
Hexiong Yang*, Robert A. Jenkins, Robert T. Downs, Stanley H. Evans and Elias M. Bloch
*E-mail: hyang@u.arizona.edu
Dimorph of szenicsite
Monoclinic: $P2_1/m$; structure determined
a = 5.5203(5), b = 5.9900(5), c = 9.9832(11) Å, β = 97.586(2)°
5.124(65), 4.948(100), 3.450(54), 3.299(51), 3.006(53), 2.736(55), 2.580(88), 2.122(60)
Type material is deposited in the collections of the University of Arizona Mineral Museum, Tucson, Arizona, USA, catalogue number 19291
How to cite: Yang, H., Jenkins, R.A., Downs, R.T., Evans, S.H. and Bloch, E.M. (20110) Markascherite, IMA 2010-051. CNMNC Newsletter 7, February 2011, pages 28-29; *Mineralogical Magazine*, **75**, 27-31

IMA No. **2010-052**
Rakovanite
$Na_3\{H_3[V_{10}O_{28}]\}\cdot 15H_2O$
Sunday and the West Sunday mines, Slick Rock District, San Miguel County, Colorado, USA
Anthony R. Kampf, John M. Hughes*, Joe Marty, Mickey Gunter and Barbara Nash
*E-mail: jmhughes@uvm.edu
New structure type
Monoclinic: $P2_1/n$; structure determined
a = 12.0248(17), b = 17.121(3), c = 18.140(3) Å, β = 106.242(8)°
11.270(100), 8.709(78), 7.696(81), 6.892(63), 3.445(24), 2.935(42), 2.798(31), 2.433(24)
Type material is deposited in the collections of the Natural History Museum of Los Angeles County, Los Angeles, California, USA, catalogue numbers 63357 and 63358
How to cite: Kampf, A.R., Hughes, J.M., Marty, J., Gunter, M. and Nash, B. (2011) Rakovanite, IMA 2010-052. CNMNC Newsletter 7, February 2011, page 29; *Mineralogical Magazine*, **75**, 27-31

IMA No. **2010-054**
Hylbrownite
$MgNa_3P_3O_{10}\cdot 12H_2O$
Dome Rock mine, 470 km northeast of Adelaide, South Australia, Australia (148°24'E 31°52'S)
Peter Elliott*, Joël Brugger and Tom Caradoc-Davies
*E-mail: peter.elliott@adelaide.edu.au
Mg analogue of kanonerovite
Monoclinic: $P2_1/n$; structure determined
a = 14.722(3), b = 9.240(2), c = 15.052(3) Å, β = 90.01(3)°
10.530(60), 7.357(80), 6.949(100), 5.835(30), 4.754(35), 3.934(40), 3.510(45), 3.336(35)
Type material is deposited in the collections of the South Australian Museum, Adelaide, South Australia, Australia, registration number G33088
How to cite: Elliott, P., Brugger, J. and Caradoc-Davies, T. (2011) Hylbrownite, IMA 2010-054. CNMNC Newsletter 7, February 2011, page 29; *Mineralogical Magazine*, **75**, 27-31

IMA No. **2010-055**
Rongibbsite
$Pb_2(Si_4Al)O_{11}(OH)$

Unnamed prospect, Big Horn Mountains, Maricopa County, Arizona, USA (33°69' N 113°22'W)
Hexiong Yang*, Robert A. Jenkins, Robert T. Downs, Stanley H. Evans, Elias M. Bloch, and Alex J. Halpern
*E-mail: hyang@u.arizona.edu
New structure type
Monoclinic: *C*2/*m*; structure determined
a = 12.6018(10), *b* = 13.9132(11) , *c* = 7.8356(6) Å, β 125.463(4)º
6.821(78), 6.075(100), 3.990(99), 3.481(81), 3.478(82), 3.322(76), 2.842(91), 2.753(87)
Type material is deposited in the collections of the Mineral Museum of the University of Arizona, Tucson, Arizona, USA, catalogue number 19292
How to cite: Yang, H., Jenkins, R.A., Downs, R.T., Evans, S.H., Bloch, E.M. and Halpern, A.J. (2011) Rongibbsite, IMA 2010-055. CNMNC Newsletter 7, February 2011, pages 29-30; *Mineralogical Magazine*, **75**, 27-31

IMA No. **2010-056**
Agardite-(Nd)
$NdCu_6(AsO_4)_3(OH)_6{\cdot}3H_2O$
Hilarion Mine, Agios Konstantinos (Kamariza), Lavrion District, Greece
Igor V. Pekov*, Nikita V. Chukanov, Aleksandr E. Zadov, Panagiotis Voudouris, Andreas Magganas and Athanassios Katerinopoulos
*E-mail: igorpekov@mail.ru
Mixite group
Hexagonal: $P6_3/m$;
a = 13.548(8), *c* = 5.894(6) Å
11.70(100), 4.443(22), 3.545(18), 3.255(8), 2.935(18), 2.695(13), 2.559(10), 2.453(30)
Type material is deposited in the collections of the Fersman Mineralogical Museum of the Russian Academy of Sciences, Moscow, Russia, registration number 4020/1
How to cite: Pekov, I.V., Chukanov, N.V., Zadov, A.E., Voudouris, P., Magganas, A. and Katerinopoulos, A. (2011) Agardite-(Nd), IMA 2010-056. CNMNC Newsletter 7, February 2011, page 30; *Mineralogical Magazine*, **75**, 27-31

IMA No. **2010-057**
Panguite
$(Ti,Al,Sc,Mg,Zr,Ca)_{1.8}O_3$
Allende meteorite
Chi Ma*, Oliver Tschauner, George R. Rossman and Wenjun Liu
*E-mail: chi@gps.caltech.edu
New structure type
Orthorhombic: *Pbca*
a = 9.781(1), b = 9.778(2), c = 9.815(1) Å
4.002(6), 3.995(7), 2.827(100), 1.732(18), 1.732(19), 1.729(19), 1.479(8), 1.475(9)
Type material is deposited in the collections of the Smithsonian Institution's National Museum of Natural History, Washington DC, USA, catalogue number 7602
How to cite: Ma, C., Tschauner, O., Rossman, G.R. and Liu, W. (2011) Panguite, IMA 2010-057. CNMNC Newsletter 7, February 2011, page 30; *Mineralogical Magazine*, **75**, 27-31

IMA No. **2010-058**
Cordylite-(La)
$NaBaLa_2(CO_3)_4F$

Biraya deposit, Vitim Plateau, Irkutsk district, Russia
Stuart J. Mills*, Pavel M. Kartashov, Anthony R. Kampf, Aleksei A. Konev, Anna A. Koneva and Mati Raudsepp
*E-mail: smills@eos.ubc.ca
Isomorphous with cordylite-(Ce)
Hexagonal: $P6_3/mmc$; structure determined
a = 5.1182(5), c = 23.1785(16) Å
4.371(65), 4.148(54), 3.532(100), 3.209(95), 2.562(89), 2.213(52), 2.051(44), 1.921(52)
Type material is deposited in the collections of the Mineral Sciences Department, Natural History Museum of Los Angeles County, Los Angeles, California, USA, catalogue number 63360, and the Fersman Mineralogical Museum of the Russian Academy of Sciences, Moscow, Russia, registration numbers 4028/1 and 4029/1
How to cite: Mills, S.J., Kartashov, P.M., Kampf, A.R., Konev, A.A., Koneva, A.A. and Raudsepp. M. (2011) Cordylite-(La), IMA 2010-058. CNMNC Newsletter 7, February 2011, page 30; *Mineralogical Magazine*, **75**, 27-31

IMA No. **2010-060**
Allanite-(Nd)
$CaNdAl_2Fe^{2+}(SiO_4)(Si_2O_7)O(OH)$
NYF granite pegmatite near Åskagen, Värmland, Sweden
Radek Škoda*, Jan Cempírek, Jan Filip and Milan Novák
*E-mail: rskoda@sci.muni.cz
Epidote group
Monoclinic: $P2_1/m$; structure determined
a = 8.8897(5), b = 5.7308(2), c = 10.1010(6) Å, β = 115.166(7)°
3.508(46), 2.893(100), 2.865(45), 2.698(60), 2.607(60), 2.164(35), 2.117(38), 1.659(43)
Type material is deposited in the collections of the Department of Mineralogy and Petrology of the National Museum in Prague, Czech Republic, catalogue number P1P 1/2010
How to cite: Škoda, R., Cempírek, J., Filip, J. and Novák, M. (2011) Allanite-(Nd), IMA 2010-060. CNMNC Newsletter No. 8, April 2011, page 290; *Mineralogical Magazine*, **75**, 289-294.

IMA No. **2010-061**
Ferrisepiolite
$(Fe^{3+},Fe^{2+},Mg)_4[(Si,Fe^{3+})_6O_{15}](O,OH)_2\cdot 6H_2O$
Saishitang skarn copper deposit, Xinghai County, Qinghai Province, China (35º17'15"N 99º47'15"E)
Gu Xiangping*, Xie Xiande, Wu Xiangbin, Lai Jianqing, Kenich Hoshino and Zhu Guchang
*E-mail: guxp2004@163.com
Fe(III)-dominant analogue of sepiolite
Orthorhombic: *Pncn*
a = 13.467(16), b = 26.953(41), c = 5.226(17) Å
12.034(100), 4.468(5), 3.742(6), 3.378(31), 3.184(4), 2.704(6), 2.552(5), 2.060(4)
Type material is deposited in the collections of the Geological Museum of China, People's Republic of China, catalogue number M11786
How to cite: Gu, X., Xie, X., Wu, X., Lai, J., Hoshino, K. and Zhu, G. (2011) Ferrisepiolite, IMA 2010-061. CNMNC Newsletter 7, February 2011, page 30; *Mineralogical Magazine*, **75**, 27-31

IMA No. **2010-062**

Brearleyite
$Ca_{12}Al_{14}O_{32}Cl_2$
NWA 1934 CV3 carbonaceous chondrite
Chi Ma*, Harold C. Connolly, Jr., John R. Beckett, George R. Rossman, Anthony R. Kampf, Thomas J. Zega, Oliver Tschauner, Stuart A. Sweeney Smith and Devin L. Schrader
*E-mail: chi@gps.caltech.edu
Derivative of mayenite
Cubic: $I\bar{4}3d$; structure determined
a = 11.9794(5) Å
3.001(41), 2.685(100), 2.451(55), 2.192(33), 1.947(24), 1.665(42), 1.604(61), 1.310(22)
Type material is deposited in the collections of the Smithsonian Institution's National Museum of Natural History, Washington DC, USA, catalogue number USNM 7590
How to cite: Ma, C., Connolly, Jr., H.C., Beckett, J.R., Rossman, G.R., Kampf, A.R., Zega, T.J., Tschauner, O., Sweeney Smith, S.A. and Schrader, D.L. (2011) Brearleyite, IMA 2010-062. CNMNC Newsletter 7, February 2011, page 31; *Mineralogical Magazine*, **75**, 27-31

IMA No. **2010-063**
Pavlovskyite
$Ca_8(SiO_4)_2(Si_3O_{10})$
Birkhin gabbro massif, Baikal Lake, Eastern Siberia, Russia (52º42'N 106º30'E) and xenolith number 3, Upper Chegem caldera, Lakargi, Kabardino-Balkaria, North Caucasus, Russia (43°17'N 43°6'E)
E.V. Galuskin*, B. Lazic, V.B. Savelyeva, T. Armbruster, I.O. Galuskina, A.E. Zadov, P. Dzierżanowski, N.N. Pertsev and V.M. Gazeev
*E-mail: evgeny.galuskin@us.edu.pl
Known synthetic phase
Orthorhombic: *Pbcn*; structure determined
a = 5.0849(1), b = 11.4116(2), c = 28.6304(8) Å
3.607(39), 3.046(67), 2.835(100), 2.689(70), 2.438(18), 1.948(38), 1.898(18), 1.805(14)
The holotype (Birkhin) is deposited in the collections of the Fersman Mineralogical Museum of the Russian Academy of Science, catalogue number 4023/1. A co-type specimen (Lakargi) is deposited under catalogue number 4024/1
How to cite: Galuskin, E.V., Lazic, B., Savelyeva, V.B., Armbruster, T., Galuskina, I.O., Zadov, A.E., Dzierżanowski, P., Pertsev, N.N. and Gazeev, V.M. (2011) Pavlovskyite, IMA 2010-063. CNMNC Newsletter No. 8, April 2011, page 290; *Mineralogical Magazine*, **75**, 289-294.

IMA No. **2010-064**
Bitikleite-(SnFe)
$Ca_3(SnSb^{5+})Fe^{3+}{}_3O_{12}$
Xenolith number 1, Upper Chegem caldera, Lakargi, Kabardino-Balkaria, North Caucasus, Russia (43°17'N 43°6'E)
I.O. Galuskina*, E.V. Galuskin, J. Kusz, P. Dzierżanowski, K. Prusik, V.M. Gazeev, N.N. Pertsev and L. Dubrovinsky
*E-mail: irina.galuskina@us.edu.pl
Garnet group
Cubic: $Ia\bar{3}d$
a = 12.536(3) Å
4.432(87), 3.134(84), 2.803(47), 2.559(95), 1.982(27), 1.675(100), 1.402(35), 1.336(29)

Type material is deposited in the collections of the Fersman Mineralogical Museum of the Russian Academy of Sciences, catalogue number 4025/1

How to cite: Galuskina, I.O., Galuskin, E.V., Kusz, J., Dzierżanowski, P., Prusik, K., Gazeev, V.M., Pertsev, N.N. and Dubrovinsky, L. (2011) Bitikleite-(SnFe), IMA 2010-064. CNMNC Newsletter No. 8, April 2011, page 290; *Mineralogical Magazine*, **75**, 289-294.

IMA No. **2010-066**

Ferriallanite-(La)

$Ca(La,Ce,Th)(Fe^{3+},Al)(Al,Fe^{3+})(Fe^{2+},Mn,Ti,Mg)(SiO_4)(Si_2O_7)O(OH)$

In den Dellen pumice quarries, Niedermendig, Mendig, Laach Lake volcanic complex, Eifel Mountainss, Rhineland-Palatinate, Germany

Uwe Kolitsch*, Stuart J. Mills, Ritsuro Miyawaki and Günter Blaß

*E-mail: uwe.kolitsch@nhm-wien.ac.at

Epidote group

Monoclinic: $P2_1/m$; structure determined

a = 8.938(2), b = 5.789(1), c = 10.153(2) Å, β = 114.54(3)°

9.22(19), 7.96(34), 3.53(38), 2.92(100), 2.72(50), 2.63(36), 2.16(17), 1.639(34)

The holotype is deposited in the collections of the Naturhistorisches Museum, Wien (Natural History Museum, Vienna), registered number N 8164, and the co-type (probe mount) is preserved in the collections of Museum Victoria, registered number M49750

How to cite: Kolitsch, U., Mills, S.J., Miyawaki, R. and Blaß, G. (2011) Ferriallanite-(La), IMA 2010-066. CNMNC Newsletter No. 8, April 2011, page 290; *Mineralogical Magazine*, **75**, 289-294.

IMA No. **2010-067**

Fluor-schorl

$NaFe^{2+}{}_3Al_6Si_6O_{18}(BO_3)_3(OH)_3F$

Alluvial tin deposits near Steinberg, Zschorlau, Erzgebirge, Saxony, Germany and in pegmatites neard Grasstein, Trentino, South Tyrol, Italy

Andreas Ertl*, Uwe Kolitsch, M. Darby Dyar, Hans-Peter Meyer, Darrell J. Henry, George R. Rossman, Markus Prem, Thomas Ludwig, Lutz Nasdala, Christian L. Lengauer and Ekkehart Tillmanns

*E-mail: andreas.ertl@a1.net

Tourmaline group

Trigonal: $R3m$; structure determined

a = 16.005(2), c = 7.176(1) Å

6.361(84), 4.225(39), 3.995(100), 3.470(67), 2.959(51), 2.584(76), 2.045(24), 1.454(26)

Holotype material (no. 8165: fluor-schorl from Zschorlau; no. 8166: fluor-schorl from Grasstein) is deposited in the collections of the Naturhistorisches Museum, Austria

How to cite: Ertl, A., Kolitsch, U., Darby Dyar, M., Meyer, H.-P., Henry, D.J., Rossman, G.R., Prem, M., Ludwig, T., Nasdala, L., Lengauer, C.L. and Tillmanns, E. (2011) Fluor-schorl, IMA 2010-067. CNMNC Newsletter No. 8, April 2011, page 291; *Mineralogical Magazine*, **75**, 289-294.

IMA No. **2010-068**

Mejillonesite

$NaMg_2(PO_3OH)(PO_4)H(OH)\cdot 2H_2O$

Cerro Mejillones (23°05'44.56"S 70°30'53.78"W), Mejillones Peninsula, Mejillones, Antofagasta Region, Chile

Daniel Atencio*, Nikita V. Chukanov, Fabrizio Nestola, Thomas Witzke, José M.V. Coutinho, Aleksandr E. Zadov, Reynaldo R. Contreira Filho and Gunnar Färber
*E-mail: datencio@usp.br
New structure type
Orthorhombic: *Pbca*; structure determined
a = 16.295(1), *b* = 13.001(2), *c* = 8.434(1) Å
8.095(100), 6.846(9), 6.470(8), 3.317(5), 2.959(5), 2.706(12), 2.157(19), 2.153(9)
Type material is deposited in the Museu de Geociências, Instituto de Geociências, Universidade de São Paulo, São Paulo, Brazil, catalogue number DR712, and in the Fersman Mineralogical Museum of the Russian Academy of Sciences, Moscow, Russia, registration number 4043/1
How to cite: Atencio, D., Chukanov, N.V., Nestola, F., Witzke, T., M.V. Coutinho, J.M.V., Zadov, A.E., Contreira Filho, R.R. and Färber, G. (2011) Mejillonesite, IMA 2010-068. CNMNC Newsletter No. 8, April 2011, page 291; *Mineralogical Magazine*, **75**, 289-294.

IMA No. **2010-069**
Arsenohopeite
$Zn_3(AsO_4)_2 \cdot 4H_2O$
Tsumeb mine, Namibia
Franz Neuhold*, Uwe Kolitsch, Heinz-Jürgen Bernhardt and Christian L. Lengauer
*E-mail: franzneuhold@gmx.net
Arsenate analogue of hopeite
Orthorhombic: *Pnma*; structure determined
a = 10.804(2), *b* = 19.003(4), *c* = 5.112(1) Å
9.502(100), 5.196(31), 4.937(50), 4.490(28), 4.110(48), 3.978(28), 3.567(31), 2.926(95)
Type material is deposited in the collections of the Natural History Museum Vienna, Vienna, Austria, catalogue number N 8167
How to cite: Neuhold, F., Kolitsch, U., Bernhardt, H.-J. and Lengauer, C.L. (2011) Arsenohopeite, IMA 2010-069. CNMNC Newsletter No. 8, April 2011, page 291; *Mineralogical Magazine*, **75**, 289-294.

IMA No. **2010-070**
Vladimirivanovite
$Na_6Ca_2[Al_6Si_6O_{24}](SO_4,S_3,S_2,Cl)_2 \cdot H_2O$
Tultuy (or Tultui) deposit, Tultuy River, Irkutsk Region, Russia (51°40'68"N 103°26'24"E), and the Luadzhvardarite deposit, Luadzhvardara River, southwestern Pamirs, Republic of Tajikistan (37°5'24"N 71°45'E)
A.N. Sapozhnikov*, E.V. Kaneva, D.I. Cherepanov, L.F. Suvorova, V.I. Levitsky, L.A. Ivanova and L.Z. Reznitsky
*E-mail: sapozh@igc.irk.ru
Sodalite group
Orthorhombic: *Pnaa*; structure determined
a = 9.066(3), *b* = 12.851(3), *c* = 38.558(10) Å
6.61(5), 6.43(11), 3.710(100), 2.623(30), 2.273(6), 2.141(14), 1.783(9), 1.606(6)
Type material is deposited in the collections of the Mineralogical Museum of Saint-Petersburg State University, Saint Petersburg, Russia, catalogue number 1/19366
How to cite: Sapozhnikov, A.N., Kaneva, E.V., Cherepanov, D.I., Suvorova, L.F., Levitsky, V.I., Ivanova, L.A. and Reznitsky, L.Z. (2011) Vladimirivanovite, IMA 2010-070. CNMNC Newsletter No. 8, April 2011, page 291; *Mineralogical Magazine*, **75**, 289-294.

IMA No. **2010-071**
Långbanshyttanite
$Pb_2Mn_2Mg(AsO_4)_2(OH)_4 \cdot 6H_2O$
Långban mine, Sweden
Nikita V. Chukanov*, Igor V. Pekov, Erik Jonsson, Natalia V. Zubkova, Yaroslav E. Filinchuk, Dmitriy I. Belakovsky and Dmitriy Yu. Pushcharovsky
*E-mail: chukanov@icp.ac.ru
New structure type
Triclinic: $P\bar{1}$; structure determined
a = 5.0528(10), b = 5.7671(6), c = 14.617(3) Å, α = 85.656(14), β = 82.029(17), γ = 88.728(13)°
14.48(100), 7.21(43), 4.969(34), 4.798(28), 3.792(20), 3.571(54), 2.857(45), 2.800(34)
Type material is deposited in the collections of the Fersman Mineralogical Museum of the Russian Academy of Sciences, Moscow, Russia, registration number 4032/1, and the Swedish Museum of Natural History, Stockholm, Sweden, catalogue number NRM 20100076
How to cite: Chukanov, N.V., Pekov, I.V., Jonsson, E., Zubkova, N.V., Filinchuk, Y.E., Belakovsky, D.I. and Pushcharovsky, D.Y. (2011) Långbanshyttanite, IMA 2010-071. CNMNC Newsletter No. 8, April 2011, page 292; *Mineralogical Magazine*, **75**, 289-294.

IMA No. **2010-072**
Rusinovite
$Ca_{10}(Si_2O_7)_3Cl_2$
Upper Chegem caldera, Kabardino-Balkaria, North Caucasus, Russia (43°17'N 43°6'E)
E.V. Galuskin*, I.O. Galuskina, B. Lazic, T. Armbruster, A.E. Zadov, T. Krzykawski, K. Banasik, V.M. Gazeev and N.N. Pertsev
*E-mail: evgeny.galuskin@us.edu.pl
New structure type
Orthorhombic: *Cmcm*; structure determined
a = 3.7617(2), b = 16.9385(8), c = 17.3196(9) Å
8.471(39), 3.209(33), 3.134(25), 3.082(100), 3.030(79), 2.946(43), 2.889(74), 2.537(74)
Type material is deposited in the collections of the Fersman Mineralogical Museum of the Russian Academy of Sciences, Moscow, Russia, registration number 4022/1
How to cite: Galuskin, E.V., Galuskina, I.O., Lazic, B., Armbruster, T., Zadov, A.E., Krzykawski, T., Banasik, K., Gazeev, V.M. and Pertsev, N.N. (2011) Rusinovite, IMA 2010-072. CNMNC Newsletter No. 8, April 2011, page 291; *Mineralogical Magazine*, **75**, 289-294.

OLDER PROPOSALS

IMA No. **2000-030a**
Uvite
$CaMg_3(Al_5Mg)(Si_6O_{18})(BO_3)_3(OH)_4$
Brumado mine, Bahia, Brazil
Christine M. Clark, Frank C. Hawthorne* and Joel D. Grice
*E-mail: frank_hawthorne@umanitoba.ca
Tourmaline group
Trigonal: *R*3*m*; structure determined
a = 15.954(1), c = 7.214(1) Å
10.0(73), 3.39(58), 3.35(82), 3.15(64), 2.65(41), 2.62(100), 2.43(48), 1.536(52)

Type material is deposited in the Royal Ontario Museum (Toronto, Canada), specimen number M55101
How to cite: Clark, C.M., Hawthorne, F.C. and Grice, J.D. (2010) Uvite, IMA 2000-030a. CNMNC Newsletter 2, April 2010, page 377; *Mineralogical Magazine*, **74**, 375–377

IMA No. **2005-025a**
Afmite
$Al_3(OH)_4(H_2O)_3(PO_4)(PO_3OH)\cdot H_2O$
Fumade, Castelnau-de-Brassac, Tarn, France (43°39'30"N, 2°29'58"E)
Anthony R. Kampf*, Georges Favreau, Ian M. Steele, Stuart J. Mills, George R. Rossman and Joseph J. Pluth
*Email: akampf@nhm.org
Related to planerite and kobokoboite
Triclinic: $P\bar{1}$; structure determined
a = 7.386(3), *b* = 7.716(3), *c* = 11.345(4) Å, α = 99.773(5), β = 91.141(6), γ = 115.58(5)º
11.130(100), 6.813(30), 5.499(62), 4.029(24), 3.532(65), 3.087(41), 2.918(43), 2.466(21)
Type material is deposited in the Natural History Museum of Los Angeles County, Los Angeles, catalogue number 55425
How to cite: Kampf, A.R., Favreau, G., Steele, I.M., Mills, S.J., Rossman, G.R. and Pluth, J.J. (2010) Afmite, IMA 2005-025a. CNMNC Newsletter 4, July 2010, page 797; *Mineralogical Magazine*, **74**, 797-800

IMA No. **2009-035a**
Hughesite
$Na_3AlV_{10}O_{28}\cdot 22H_2O$
Sunday mine, Slick Rock district, San Miguel County, Colorado, USA
John Rakovan*, Mickey Gunter, Joe Marty, Barbara Nash, Gregory R. Schmidt and William Wise
*Email: rakovajf@muohio.edu
Decavanadate salt
Triclinic: $P\bar{1}$; structure determined
a = 8.668(4), *b* = 10.295(4), *c* = 12.908(5) Å, α = 105.826(9), β = 97.899(9), γ = 103.385(9)º
12.130(100), 9.502(25), 8.984(28), 8.237(36), 7.615(9), 6.428(9), 3.352(6), 2.761(8)
Type material is deposited in the Smithsonian Institute, specimen number NMNH 174253
How to cite: Rakovan, J., Gunter, M., Marty, J., Nash, B., Schmidt, G.R. and Wise, W. (2011) Hughesite, IMA 2009-035a. CNMNC Newsletter No. 8, Month 2011, page X; *Mineralogical Magazine*, **XX**, XXX-XXX

IMA No. **1997-046a**
Sarrabusite
$Pb_5CuCl_4(SeO_3)_4$
Baccu Locci Mine, 15 km north of Villaputzu, Sardinia, Italy
Italo Campostrini, Francesco Demartin*, Mauro Gemmi, Tatiana Gorelik and Carlo Maria Gramaccioli
*Email: francesco.demartin@unimi.it
New structure type salt
Monoclinic: *C*2/*c*; structure determined
a = 24.917(3), *b* = 5.506(1), *c* = 14.242(2) Å, β = 101.77(1)°
3.685(60), 3.314(20), 3.034(100), 2.728(38), 2.418(12), 2.106(15), 2.079(18), 2.043(28)

Type material is deposited in the Reference Collection of the Dipartimento di Chimica Strutturale e Stereochimica Inorganica, University of Milan, sample number 2010-02

How to cite: Campostrini, I., Demartin, F., Gemmi, M., Gorelik, T. and Gramaccioli, C.M. (2011) Sarrabusite, IMA 1997-046a. CNMNC Newsletter No. 8, Month 2011, page X; *Mineralogical Magazine*, **XX**, XXX-XXX

APPROVAL WITHDRAWN IN FEBRUARY 2010

IMA No. **2009-079**

About 25 km southwest from Monte Metocha, Xixano region, north-eastern Mozambique

Roberta Oberti

$KNa_2(Mg_4Fe^{3+})Si_8O_{22}F_2$

Amphibole group

Monoclinic: *C*2/*m*; structure determined

a = 9.9591(4), *b* = 17.9529(6) , *c* = 5.2867(2) Å, β = 103.340(1)º

8.499(58), 3.394(81), 3.286(43), 3.166(60), 2.746(43), 2.707(100), 2.583(45), 2.537(70) 1.873(40)

Approval has been **withdrawn** for the above mineral IMA 2009-079. The previous Chairman of CNMNC, Dr Ernst Burke, has noted that the same mineral was approved as IMA 85-023. At the same time that the mineral was approved, voting on the proposed name was suspended because of an imminent report on the nomenclature of the amphibole group. Subsequently, Hogarth *et al*. (1987) published definitive data for the mineral without noting that it had been approved by IMA, describing it as "potassium fluor-magnesio-arfvedsonite". As a result of later enquiries, and in light of the currently accepted amphibole nomenclature, Hogarth (2006) published a note in which the mineral approval was reported and named it fluoro-potassic-magnesio-arfvedsonite. This is the correct name for the mineral, renamed with IMA approval.

Hogarth, D.D. (2006) Fluoro-potassic-magnesio-arfvedsonite, $KNa_2Mg_5Si_8O_{22}F_2$, from the Outaouais region, Quebec, Canada. *Canadian Mineralogist*, **44**, 289.

Hogarth, D.D., Chao, G.Y. and Townsend, M.G. (1987) Potassium- and fluorine-rich amphiboles from the Gatineau area, Quebec. *Canadian Mineralogist*, **25**, 739-753.

GENERAL NOMENCLATURE PROPOSALS

IMA 09-D: The early publication of new mineral names

The Commission has determined to change the way preliminary data for newly approved minerals will be reported. Five additional items on the new minerals will be released every month by the CNMNC as follows:

- the mineral name **(unless the authors explicitly ask to keep it confidential until a full description is published)**;
- the full authorship;
- the email contact of the corresponding author;
- the place of preservation and the catalogue number of the type material;
- how to cite the new mineral.

It is still a requirement for the authors to publish a full description of the new mineral. This change will come into effect in March 2010.

IMA 09-E Discreditation of "orthobrochantite" (IMA 78–064) as the MDO1 polytype of brochantite

Orthobrochantite is discredited. It corresponds to the MDO1 polytype of brochantite.

IMA 10-A: Proposal to rename alumopharmacosiderite to pharmacoalumite and establish a formal group nomenclature system for mineral species structurally related to pharmacosiderite

Alumopharmacosiderite is renamed pharmacoalumite. A new nomenclature system for mineral species structurally related to pharmacosiderite is adopted. CNMNC Newsletter, April 2010, page 377; *Mineralogical Magazine*, **74**, 375–377

Nomenclature of the pyrochlore supergroup minerals

Re-examination and redefinition of pyrochlore end-members and potential new end-members and species has been undertaken, including a classification guide for naming future species.