

**NEW MINERALS APPROVED IN 2008**  
**NOMENCLATURE MODIFICATIONS APPROVED IN 2008**  
**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.

Each mineral is 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 names of these approved species are considered confidential information until the authors have published their descriptions or released information themselves.

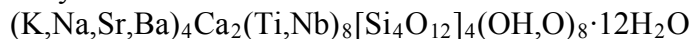
NO OTHER INFORMATION WILL BE RELEASED BY THE COMMISSION

### 2008 PROPOSALS

IMA No. **2008-001**

Khibinpakhchorr Mt., Khibiny massif, Kola Peninsula, Russia.

Yulya V. Azarova



Labuntsovite group

Monoclinic:  $C2/m$ ; structure determined

$a$  14.529,  $b$  14.203,  $c$  7.899 Å,  $\beta$  117.37°

7.08(70), 3.25(100), 3.11(70), 2.61(50), 2.49(70), 1.712(70), 1.577(70), 1,444(70)

IMA No. **2008-003**

Dronino village, Kasimov District, Ryazan' Oblast, 350 km south-east of Moscow, Russia

Nikita V. Chukanov  
 $\text{Ni}_3\text{Fe}^{3+}\text{Cl}(\text{OH})_8 \cdot 2\text{H}_2\text{O}$   
Hydrotalcite group  
Trigonal:  $R\bar{3}m$ ,  $R3m$  or  $R32$   
 $a$  6.206,  $c$  46.184 Å  
7.76(100), 3.88(40), 2.64(25), 2.32(20), 1.965(15), 1.546(10), 1.536(10), 1.337(10)

IMA No. **2008-004**  
Premier Mine, Stewart, British Columbia, Canada  
Luca Bindi  
 $[\text{Cu}_6\text{Sb}_2\text{S}_7][\text{Ag}_9\text{CuS}_4]$   
Pearceite-polybasite group  
Trigonal:  $P\bar{3}m1$ ; structure determined  
 $a$  7.341,  $c$  11.805 Å  
11.81(44), 3.069(44), 2.951(100), 2.799(52), 2.473(43), 2.355(40), 2.163(43), 1.835(46)

IMA No. **2008-005**  
La Fossa crater, Vulcano, Aeolian Islands, Italy  
Italo Campostrini  
 $(\text{NH}_4)_2\text{SnCl}_6$   
Cubic:  $Fm\bar{3}m$ ; structure determined  
 $a$  10.064 Å  
5.81(100), 5.03(73), 3.035(48), 2.516(69), 2.250(39), 1.937(23), 1.779(42), 1.701(22)

IMA No. **2008-006**  
Torre Stracciacappe, Trevignano community (Rome province), Latium, Italy  
Fabio Bellatreccia  
 $[\text{Na}_{82.5}\text{Ca}_{33}\text{K}_{16.5}]_{132}(\text{Si}_{99}\text{Al}_{99}\text{O}_{396})(\text{SO}_4)_{33} \cdot 4\text{H}_2\text{O}$   
Cancrinite-sodalite group  
Trigonal:  $P\bar{3}$ ; structure determined  
 $a$  12.8742,  $c$  87.215 Å  
6.85(66), 6.39(65), 5.74(52), 3.773(60), 3.691(100), 3.587(70), 3.551(53), 2.639(73)

IMA No. **2008-007**  
Tommat, Yakutia, Russia  
Gunnar Raade  
 $(\text{Y,REE,Ca,Na,Mn})_{15}\text{Fe}^{2+}\text{Ca}(\text{P,Si})\text{Si}_6\text{B}_3(\text{O,F})_{48}$   
Vicanite group  
Trigonal:  $R3m$ ; structure determined  
 $a$  10.7527,  $c$  27.4002 Å  
4.441(36), 3.144(77), 3.028(45), 2.968(100), 2.672(30), 1.806(30), 1.782(32), 1.713(32)

IMA No. **2008-008**  
Angaston, in the Mount Lofty Ranges, 100 km NNE of Adelaide, South Australia, Australia  
Stuart J. Mills  
 $\text{CaMgAl}_2(\text{PO}_4)_2(\text{OH})_4 \cdot 7\text{H}_2\text{O}$   
Triclinic:  $P\bar{1}$   
 $a$  19.819,  $b$  12.858,  $c$  5.468 Å,  $\alpha$  90.088,  $\beta$  89.067,  $\gamma$  91.032°

IMA No. **2008-009**

Kirovskii underground apatite mine, Mountain Kukisvumchorr, Khibiny alkaline complex, Kola Peninsula, Russia

Igor V. Pekov



Apatite group

Hexagonal:  $P6_3/m$ ; structure determined

$a$  9.845,  $c$  7.383 Å

3.71(30), 3.21(40), 2.940(100), 2.823(35), 2.009(50), 1.955(45), 1.831(50), 1.500(30)

IMA No. **2008-010**

Jáchymov, Krušné hory Mountains, western Bohemia, Czech Republic

Jiří Sejkora



Lindackerite group

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

$a$  6.432,  $b$  7.986,  $c$  10.827 Å,  $\alpha$  85.75,  $\beta$  81.25,  $\gamma$  85.04°

10.67(100), 3.970(10), 3.648(11), 3.560(18), 3.286(10), 3.173(13), 2.922(10), 2.736(10)

IMA No. **2008-011**

Interplanetary dust particle collected from the stratosphere over south-western USA, probably from Comet 26P/Grigg-Skjellerup

Keiko Nakamura-Messenger

MnSi

Fersilicite group

Cubic:  $P2_13$

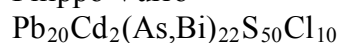
$a$  4.557 Å

3.223(18), 2.632(16), 2.038(100), 1.861(50), 1.374(10), 1.218(24), 0.9946(12), 0.8464(15)

IMA No. **2008-012**

Mutnovsky volcano, Kamchatka Peninsula, Far East Asia, Russia

Filippo Vurro



Zinkenite plesiotypic series

Monoclinic:  $C2/c$ ; structure determined

$a$  8.352,  $b$  45.592,  $c$  27.261 Å,  $\beta$  98.84°

4.35(21), 4.07(39), 3.80(53), 3.66(24), 3.361(65), 3.313(100), 2.835(39), 2.789(36)

IMA No. **2008-013**

Broken Hill, New South Wales, Australia

Peter Elliott



Rockbridgeite group

Orthorhombic:  $Cmcm$ ; structure determined

$a$  5.141,  $b$  13.811,  $c$  16.718 Å

4.638(50), 3.388(50), 3.369(55), 3.168(100), 2.753(60), 2.575(90), 2.414(75), 2.400(50)

IMA No. **2008-014**

La Fossa crater, Vulcano, Aeolian Islands, Italy

Francesco Demartin



New structure type

Monoclinic:  $Cc$ ; structure determined

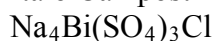
$a$  26.686,  $b$  15.127,  $c$  13.014 Å,  $\beta$  108.11°

4.241(29), 3.884(30), 3.846(40), 3.773(100), 2.801(27), 2.745(30), 2.710(35), 2.113(93)

IMA No. **2008-015**

La Fossa crater, Vulcano, Aeolian Islands, Italy

Italo Campostrini



Cesante group

Hexagonal:  $P6_3/m$ ; structure determined

$a$  9.626,  $c$  6.880 Å

4.787(20), 3.432(45), 2.853(100), 2.775(85), 2.306(25), 2.189(15), 1.965(35), 1.716(20)

IMA No. **2008-016**

Allende meteorite, Pueblito de Allende, Chihuahua, Mexico

Chi Ma



Corundum group

Trigonal:  $R\bar{3}c$

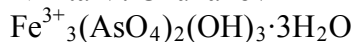
$a$  5.158,  $c$  13.611 Å

3.734(84), 2.707(88), 2.579(90), 2.242(38), 1.8672(33), 1.7033(100), 1.5124(28), 1.4890(46)

IMA No. **2008-017**

Kamariza mine, Lavrion mining district, Attikí Prefecture, Greece

Nikita V. Chukanov



Related to tenticite

Orthorhombic:  $Pccm$ ,  $Pcc2$ ,  $Pcmm$ ,  $Pcm2_1$  or  $Pc2m$

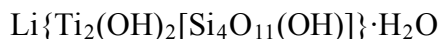
$a$  21.32,  $b$  13.666,  $c$  15.80 Å

6.61(37), 5.85(52), 3.947(100), 3.396(37), 3.332(60), 3.245(34), 3.085(58), 3.036(51)

IMA No. **2008-018**

Mt. Punkaruaiv, Lovozero massif, Kola Peninsula, Russia

Victor N. Yakovenchuk



Related to lintisite and kukisvumite

Monoclinic:  $C2/c$ ; structure determined

$a$  26.68,  $b$  8.75,  $c$  5.24 Å,  $\beta$  91.2°

13.3(10), 6.23(8), 4.38(6), 4.16(4), 3.50(8), 3.01(7), 2.81(7), 2.70(4)

IMA No. **2008-019**

Bellerberg, Ettringen, Eifel, Germany

Christian L. Lengauer



Milarite group

Hexagonal:  $P6/mcc$ ; structure determined

$a$  9.970,  $c$  14.130 Å

4.993(30), 4.321(25), 4.081(30), 3.6898(30), 3.5381(25), 3.1799(100), 2.8847(70),  
2.7374(25)

IMA No. **2008-020**

La Fossa crater, Vulcano, Aeolian Islands, Italy

Italo Campostrini

BiSCI

Orthorhombic: *Pnam*; structure determined

*a* 7.802, *b* 9.930, *c* 3.990 Å

4.174(45), 2.896(100), 2.784(33), 2.684(42), 2.543(27), 2.044(23), 1.992(25), 1.725(30)

IMA No. **2008-021**

Frongoch mine, Devils Bridge, Ceredigion, Wales, U.K.

Frank C. Hawthorne

$\text{Pb}^{2+}_5(\text{OH})_5[\text{Cu}^{1+}(\text{S}^{6+}\text{O}_3\text{S}^{2-})_3](\text{H}_2\text{O})_{1.67}$

Lead thiosulfate

Monoclinic: *P2<sub>1</sub>/n*; structure determined

*a* 12.5631, *b* 8.8963, *c* 18.0132 Å,  $\beta$  96.459°

6.897(8), 6.211(6), 4.797(6), 3.934(10), 3.741(2), 3.348(7), 3.026(6), 2.837(5)

IMA No. **2008-022**

Radium Ridge near Mt Painter, near Arkaroola, Northern Flinders Ranges, South Australia

Joël Brugger

$\text{UO}_2(\text{OH})_2$

Uranyl hydroxide

Monoclinic (pseudo-orthorhombic)

Space Group: Systematic extinctions are consistent with any monoclinic space group.

*a* 4.281, *b* 10.230, *c* 6.865 Å,  $\beta$  90.35°

5.085(64), 3.424(100), 3.405(27), 2.848(18), 2.483(23), 1.9854(13), 1.9737(23), 1.7820(9)

IMA No. **2008-023**

Tuften larvikite quarry, Tvedalen, Larvik, Vestfold, south Norway.

Gunnar Raade

$\text{NaCa}_2\text{Be}_3\text{Si}_4\text{O}_{13}(\text{OH})\cdot 2\text{H}_2\text{O}$

Zeolite group; new structure type

Monoclinic: *P2<sub>1</sub>*; structure determined

*a* 7.1222, *b* 19.8378, *c* 9.8071 Å,  $\beta$  111.287°

9.095(100), 6.279(42), 4.189(32), 3.972(76), 3.205(37), 2.964(70), 2.915(92), 2.757(33)

IMA No. **2008-024**

Rouma Island, Los Archipelago, Guinea

Cristian Biagioni

$(\text{Ca},\text{Na},\text{REE},\square)_7(\text{Nb},\text{Ti})[\text{Si}_2\text{O}_7]_2\text{OF}_3$

Rinkite group

Monoclinic: *Cc*; structure determined

*a* 7.473, *b* 11.294, *c* 18.778 Å,  $\beta$  101.60°

3.057(100), 2.790(40), 2.689(46), 2.567(44), 2.021(68), 2.004(33), 1.813(33), 1.680(60)

IMA No. **2008-025**

Blue Bell claims in the Soda Mountains, San Bernardino County, California, U.S.A.

Anthony R. Kampf

$\text{Pb}_2\text{Si}_4\text{O}_{10}\cdot\text{H}_2\text{O}$

New structure type

Orthorhombic: *Pbcn*; structure determined

*a* 13.2083, *b* 9.7832, *c* 8.6545 Å

7.883(97), 6.625(35), 4.897(38), 3.623(100), 3.166(45), 2.938(57), 2.555(51), 2.243(50)

IMA No. **2008-026**

Koshmansay river, Chatkal ridge, Uzbekistan

Chris J. Stanley

$\text{Mn}_5\text{Si}_3$

Suessite group

Hexagonal: *P6<sub>3</sub>/mcm*; structure determined

*a* 6.8971, *c* 4.8075 Å

2.258(44), 2.230(29), 2.044(100), 1.991(30), 1.972(67), 1.401(16), 1.307(22), 1.268(15)

IMA No. **2008-028**

Pedra Preta mine, Serra das Éguas, Brumado, Bahia, Brazil

Daniel Atencio

$\text{Cu}_3(\text{Te}^{6+}\text{O}_4)(\text{OH})_4\cdot 5\text{H}_2\text{O}$

Monoclinic: *P2<sub>1</sub>/m* or *P2<sub>1</sub>*

*a* 8.629, *b* 5.805, *c* 7.654 Å,  $\beta$  103.17°

8.432(100), 3.162(66), 2.385(27), 2.291(12), 1.916(11), 1.666(14), 1.452(10), 1.450(10)

IMA No. **2008-029**

La Fossa crater, Vulcano, Aeolian Islands, Italy

Francesco Demartin

$(\text{NH}_4)_3\text{Fe}(\text{SO}_4)_3$

New structure type

Trigonal: *R3c*; structure determined

*a* 15.2171, *c* 8.9323 Å

7.596(100), 4.384(5), 4.358(23), 4.247(5), 3.371(26), 3.320(30), 2.863(8), 2.829(14)

IMA No. **2008-030**

Allende meteorite, Pueblito de Allende, Chihuahua, Mexico

Chi Ma

$\text{CaScAlSiO}_6$

Pyroxene group

Monoclinic: *C2/c*

*a* 9.884 Å, *b* 8.988 Å, *c* 5.446 Å,  $\beta$  105.86°

3.039(100), 2.989(33), 2.619(39), 2.600(28), 2.564(47), 2.159(16), 2.063(22), 1.676(16)

IMA No. **2008-031**

Arase mine, Kochi Prefecture, Shikoku, southwest Japan

Takeru Moriyama

$\text{NdVO}_4$

Xenotime group

Tetragonal: *I4<sub>1</sub>/amd*

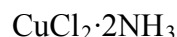
*a* 7.338, *c* 6.509 Å

4.84(27), 3.67(100), 2.92(7), 2.74(51), 2.60(11), 2.29(9), 2.09(14), 1.886(25)

IMA No. **2008-032**

Caleta Pabellon de Pica, Tarapaca, Chile

Hans-Peter Bojar



New structure type

Orthorhombic: *Cmcm*; structure determined

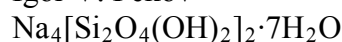
*a* 7.688, *b* 10.645, *c* 5.736 Å

6.282(69), 4.276(56), 3.897(60), 2.919(100), 2.764(35), 2.659(81), 2.335(32), 1.966(28)

IMA No. **2008-033**

Palitra ("Palette") pegmatite, Kedykverpakhk area of the Karnasurt underground loparite mine, Kedykverpakhk Mountain, Lovozero alkaline massif, Kola Peninsula, Russia.

Igor V. Pekov



New structure type

Monoclinic: *P2<sub>1</sub>/c*; structure determined

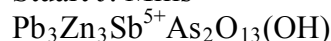
*a* 9.8744, *b* 12.3981, *c* 14.8973 Å,  $\beta$  104.675°

7.21(70), 6.21(72), 4.696(44), 4.003(49), 3.734(46), 3.116(100), 2.463(38), 2.359(30)

IMA No. **2008-034**

Black Pine mine, 14.5 km NW of Philipsburg, Granite Co., Montana, USA

Stuart J. Mills



Dugganite group

Trigonal: *P321*; structure determined

*a* 8.4803, *c* 5.2334 Å

4.321(18), 3.765(15), 3.392(100), 3.114(90), 2.587(31), 2.084(33), 1.985(15), 1.833(26)

IMA No. **2008-035**

Stetind quarry, Tysfjord, 135 km NE of Bodø, Nordland, Norway

Jochen Schlüter



Zircon group

Tetragonal: *I4<sub>1</sub>/amd*; structure determined

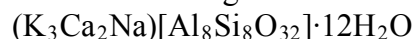
*a* 6.9746, *c* 6.2055 Å

4.636(58), 3.487(100), 2.787(21), 2.626(68), 2.466(19), 2.177(24), 1.847(21), 1.798(61)

IMA No. **2008-036**

Bellerberg volcano, east of Ettringen, eastern Eifel volcanic area, Germany

Christian L. Lengauer



Zeolite group

Triclinic: *P1̄*; structure determined

*a* 19.965, *b* 14.271, *c* 8.704 Å,  $\alpha$  88.37,  $\beta$  125.08,  $\gamma$  89.57°

4.965(45), 4.065(35), 3.235(100), 3.162(80), 3.135(80), 2.736(60), 2.712(40), 2.665(40)

IMA No. **2008-037**

Big Fish River, Yukon Territory, Canada

Hexiong Yang

Ca<sub>9</sub>Mg(PO<sub>3</sub>F)(PO<sub>4</sub>)<sub>6</sub>

Whitlockite group

Trigonal: *R3c*; structure determined

*a* 10.3224, *c* 37.070 Å

5.176(16), 3.428(18), 3.181(100), 2.986(19), 2.858(58), 2.734(16), 2.586(13), 1.714(32)

IMA No. **2008-038**

Kabardino-Balkaria, North Caucasus, Russia

Evgeny V. Galuskin

Ca<sub>7</sub>(SiO<sub>4</sub>)<sub>3</sub>(OH)<sub>2</sub>

Humite group

Orthorhombic: *Pbnm*; structure determined

*a* 5.0696(1), *b* 11.3955(1), *c* 23.5571(3) Å

5.611(43), 3.646(41), 3.041(65), 2.837(60), 2.728(74), 2.557(43), 2.520(59), 1.910(100)

IMA No. **2008-039**

La Fossa crater, Vulcano, Aeolian Islands, Italy

Francesco Demartin

(NH<sub>4</sub>)<sub>3</sub>PbCl<sub>5</sub>

New structure type

Orthorhombic: *Pnma*; structure determined

*a* 8.4351(9), *b* 15.7732(17), *c* 8.4446(9) Å

3.067(100), 2.710(78), 2.421(75), 2.211(60), 2.020(80), 1.910(78), 1.491(75), 1.457(65)

IMA No. **2008-040**

Su Senargiu mine, Sarroch, Cagliari Province, Sardinia, Italy

Paolo Orlandi

BiMo<sub>2</sub>O<sub>7</sub>(OH)·2H<sub>2</sub>O

New structure type

Monoclinic: *P2<sub>1</sub>/m*; structure determined

*a* 5.7797(7), *b* 11.567(1), *c* 6.3344(8) Å, β 113.360(9)°

5.79(25), 5.03(80), 3.327(28), 3.206(100), 3.120(32), 2.590(30), 2.115(30), 1.992(45)

IMA No. **2008-041**

Mount Karnasurt, Kola peninsula, Russia

Nikita V. Chukanov

Na<sub>7</sub>(Al<sub>5-6</sub>Si<sub>6-7</sub>O<sub>24</sub>)(C<sub>2</sub>O<sub>4</sub>)<sub>0.5-1.0</sub>·5H<sub>2</sub>O

Cancrinite group

Hexagonal: *P6<sub>3</sub>*; structure determined

*a* 12.6792(6), *c* 5.1772(2) Å

6.39(44), 4.73(92), 3.679(72), 3.264(100), 2.760(29), 2.618(36), 2.437(24), 2.126(29)

IMA No. **2008-044**

Sludyanka, Irkutsk region, Russia

Leonid Z. Reznitsky

V<sub>3</sub>O<sub>5</sub>

Related to berdesinskiite

Monoclinic: *C2/c*; structure determined

*a* 10.032(2), *b* 5.050(1), *c* 7.000(1) Å, β = 111.14(1)°

3.28(5), 2.88(5), 2.65(5), 2.44(5), 1.717(5), 1.633(5), 1.446(4), 1.379(5)



IMA No. **2008-045**

Kabardino-Balkaria, North Caucasus, Russia

Irena O. Galuskina



Fluorine-dominant counterpart of reinhardbraunsite

Monoclinic:  $P2_1/a$ ; structure determined

$a$  11.4340(19),  $b$  5.0575(9),  $c$  8.8657(16) Å,  $\beta = 108.860(12)^\circ$

5.422(38), 3.327(45), 3.034(62), 2.941(35), 2.773(33), 1.904(100), 1.895(46), 1.659(63)

IMA No. **2008-046**

Newry, Maine, USA

Frank C. Hawthorne



Isochemical with mahlmoodite

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

$a$  5.3049(2),  $b$  9.3372(4),  $c$  9.6282(4) Å,  $\alpha$  97.348(1),  $\beta$  91.534(1),  $\gamma$  90.512(1)°

9.550(100), 4.589(40), 4.411(50), 4.108(70), 4.008(50), 3.569(30), 3.177(40), 2.660(30)

IMA No. **2008-047**

Block 14 Open cut, Broken Hill, New South Wales, Australia

Peter Elliott



Hureaulite group

Monoclinic:  $C2/c$ ; structure determined

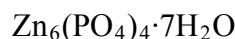
$a$  18.062(4),  $b$  9.341(19),  $c$  9.844(2) Å,  $\beta$  96.12(3)°

8.985(35), 8.283(100), 6.481(18), 6.169(29), 4.878(29), 4.656(18), 4.491(12), 4.296(12)

IMA No. **2008-048**

Block 14 Open cut, Broken Hill, New South Wales, Australia

Peter Elliott



Structurally related to rimkorologite and bakhchisaraitsevite

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

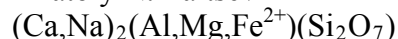
$a$  8.299(17),  $b$  9.616(19),  $c$  12.175(2) Å,  $\alpha$  71.68(3),  $\beta$  82.02(3),  $\gamma$  80.18(3)°

8.438(80), 3.414(40), 3.206(60), 2.967(75), 2.956(75), 2.550(85), 2.537(100), 2.085(40)

IMA No. **2008-049**

Oldoinyo Lengai volcano, Tanzania

Anatoly N. Zaitsev



Melilite group

Tetragonal:  $P\bar{4}2_1m$ ; structure determined

$a$  7.7661(4),  $c$  5.0297(4) Å

3.712(13), 3.075(25), 2.859(100), 2.456(32), 1.830(12), 1.757(19), 1.736(13), 1.386(13)

IMA No. **2008-050**

Eduard mine, Jáchymov district, Czech Republic

Jakub Plášil

$\text{Ni}(\text{UO}_2)_2(\text{AsO}_4)_2 \cdot 8\text{H}_2\text{O}$

Autunite group

Triclinic:  $P\bar{1}$

$a$  7.194(2),  $b$  9.759(5),  $c$  13.231(7) Å,  $\alpha$  75.53(3),  $\beta$  84.01(3),  $\gamma$  81.59(3)°

8.625(100), 5.078(25), 5.044(29), 4.277(26), 3.568(50), 3.492(28), 3.424(26), 2.990(21)

IMA No. **2008-051**

Aït Ahmane mine, Bou Azzer district, Anti-Atlas, Morocco

Nikita V. Chukanov

$\text{Ca}_2\text{Ni}(\text{AsO}_4)_2 \cdot 2\text{H}_2\text{O}$

Fairfieldite group

Triclinic:  $P$

$a$  5.858(7),  $b$  7.082, (12),  $c$  5.567(6) Å,  $\alpha$  97.20(4),  $\beta$  109.11(5),  $\gamma$  109.78(5)°

5.05(27), 3.57(43), 3.358(58), 3.202(100), 3.099(64), 2.813(60), 2.772(68), 1.714(39)

IMA No. **2008-052**

Hekla volcano, Iceland

Tonči Balić-Žunić

$\text{KNaSiF}_6$

New structure type; identical with synthetic  $\text{KNaSiF}_6$

Orthorhombic:  $Pnma$

$a$  9.3370(9),  $b$  5.5022(5),  $c$  9.795(1) Å

4.33(53), 4.26(56), 3.40(49), 3.37(47), 3.34(100), 2.251(27), 2.050(52), 2.016(29)

## OLDER PROPOSALS

IMA No. **2003-023b**

Roua, Dôme de Barrot, Département Alpes-Maritimes, France

Halil Sarp

$\text{Cu}_3\text{O}[\text{AsO}_3(\text{OH})]_2 \cdot \text{H}_2\text{O}$

Related to theoparacelsite

Monoclinic:  $C2/m$

$a$  19.158,  $b$  2.9361,  $c$  9.193 Å,  $\beta$  103.26°

7.36(30), 5.842(40), 4.476(35), 3.173(90), 2.984(100), 2.484(80), 2.396(40), 2.337(35)

IMA No. **2003-054b**

Omongwa pan, near Aminuis, 140 km SSE of Gobabis, southwestern Kalahari, Namibia

Florias Mees

$\text{Na}_2\text{Ca}_5(\text{SO}_4)_6 \cdot 3\text{H}_2\text{O}$

Related to bassanite

Monoclinic:  $C2$

$a$  12.08,  $b$  6.96,  $c$  6.39 Å,  $\beta$  89.8°

6.028(40), 3.484(29), 3.019(51), 3.014(100), 2.824(34), 2.820(65), 1.853(23), 1.855(24)

## GENERAL NOMENCLATURE PROPOSAL

A proposal from CNMNC officers Frédéric Hatert and Ernst A.J. Burke to revise and extend the dominant-constituent rule (also known under the misleading name “50% rule”) has been approved. The (rather long) manuscript will be published in one or more mineralogical journals.

## CHANGES IN EXISTING NOMENCLATURE

### 07-E

The mineral hastite, orthorhombic  $\text{CoSe}_2$  (marcasite group), is discredited. The type material has been shown to consist of ferroselite,  $\text{FeSe}_2$ .

## STATUS OF OLGITE AND BARIO-OLGITE

E.A.J. Burke, chairman IMA-CNMMN (April 2008)

It is stated, in several media, that bario-oligite, approved by the IMA-CNMMN as 2003-002 and published by Pekov *et al.* (2004), has been discredited, or should be discredited as a valid mineral. These opinions are based on the conclusion by Sokolova *et al.* (2005) that “bario-oligite is not distinct from oligite, the former should be considered for discreditation”. This consideration became reality when Sokolova and Hawthorne submitted in 2005, on invitation of the IMA-CNMMN, an official proposal to discredit bario-oligite. In the period from January to May 2006, this proposal was intensely discussed, guided by Giovanni Ferraris as vice-chairman of the CNMMN, between its authors, the authors of bario-oligite and the members of the CNMMN.

The history of oligite and bario-oligite is as follows:

1. Until 2004, oligite was considered in all mineralogical reference books to be a strontium mineral, due to the formula given in the original description by Khomyakov *et al.* (1980),  $\text{Na}(\text{Sr},\text{Ba})\text{PO}_4$ , and to the composition of the *M1* structural site as obtained by Sokolova *et al.* (1984),  $(\text{Sr}_{0.52}\text{Ba}_{0.48})$ , on type material from Mt. Karnasurt, Lovozero massif, Kola Peninsula, Russia.
2. Sokolova *et al.* (1990) published data on ‘oligite II’ and ‘oligite III’ (the original oligite being ‘oligite I’), two specimens from Mt. Alluaiv in the Lovozero massif having Ba as dominant constituent on the *M1* site. This paper failed to give a clear definition of oligite, no nomenclatural distinction was made between the 1984 oligite (Sr-dominant *M1*) and the 1990 oligite (Ba-dominant *M1*).
3. Pekov *et al.* started in 2002 a study on ‘oligite’ specimens from several pegmatites and hydrothermal veins at Mt. Kedykverpakhk in the Lovozero massif. The results indicated that ‘oligite’ consists of two mineral species, with either Sr or Ba dominant on the *M1* site. Because oligite was traditionally interpreted as a strontium mineral, Pekov *et al.* (2004) published their material with a Ba-dominant *M1* site as the new mineral bario-oligite after approval by the CNMMN in 2003. It is evident that ‘oligite II’ and ‘oligite III’ are also bario-oligite. Pekov (2005) published data of an ‘oligite’ specimen from one of the veins having a Sr-dominant *M1* composition of  $(\text{Sr}_{0.57}\text{Ba}_{0.42}\text{K}_{0.01})$ .
4. Sokolova *et al.* (2005) re-examined the material described previously as ‘oligite I’ (= the original type material) and ‘oligite III’. They found that the real space group of these specimens is *P-3m1*, not *P3* as published in 1984 and 1990 and also by Pekov *et al.* (2004) for bario-oligite. The change of space group has no implications for the occupancy of the *M1* site, which is identical in both space groups. The new data obtained on the type ‘oligite I’ specimen, however, show that its *M1* site has a

composition ( $\text{Ba}_{0.76}\text{Sr}_{0.20}\text{K}_{0.04}$ ). Calculation of the empirical formula from the original analysis by Khomyakov *et al.* (1980) along the same crystal-chemical principles leads to essentially the same results. No convincing explanation was offered for the strong difference with the 1984 results (with a Sr-dominant *M1* site) on the same specimen.

Giovanni Ferraris proposed in June 2006 the following compromise to end the discussion:

1. It is evident that 're-examined olgite' and 'bario-olgite' represent the same mineral species.
2. According to the CNMMN rules, the older name (olgite) should have priority. But taking into account the work done by Pekov in 2005 showing that in the near future a 'strontio-olgite' will be described, as an exception (but that would not be the first time!) to the priority rule, the name 'olgite' is discredited and the name 'bario-olgite' is retained.
3. The samples studied by Pekov *et al.* (2004) and by Sokolova *et al.* (2005) are the cotypes of the redefined 'bario-olgite'.

It was at that time also agreed between Ferraris, Pekov, Sokolova and Hawthorne that:

1. Sokolova and Hawthorne have withdrawn their proposal to discredit bario-olgite after reading the comments of the CNMMN members.
2. In the future, 'olgite' will be used as the name of a series consisting of the species 'bario-olgite' and 'strontio-olgite' after approval of the latter as a mineral.
3. Pekov *et al.* will at some moment submit a proposal for the Mt. Kedykverpakhk 'strontio-olgite' together with an official discreditation of the old 'olgite' and a revision of the formula of 'bario-olgite'.

Conclusions in 2008:

1. The 2006 compromise and agreements are taken over by the CNMNC: bario-olgite is to be redefined, olgite is to be discredited as a mineral name and is to be used as a series name (comparable to the apatite, columbite, apophyllite, *etc.*), and 'strontio-olgite' is to be proposed as a new mineral. The authors of the latter are invited to consider renaming the minerals of the olgite series along a suffix-based nomenclature: olgite-(Ba) and olgite-(Sr). Until that time, the names bario-olgite and olgite, respectively, are to be used for these two minerals.
2. Sokolova *et al.* (2005) would have avoided a lot of confusion and discussion if they had contacted the authors of bario-olgite and/or the CNMMN before publishing their results.
3. Publication of the results of the 2006 discussion within the CNMMN is necessary to correct wrong statements in several media.

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