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
$(K,Na,Sr,Ba)_4Ca_2(Ti,Nb)_8[Si_4O_{12}]_4(OH,O)_8 \cdot 12H_2O$
Labuntsovite group
Monoclinic: *C*2/*m*; structure determined
a 14.529, *b* 14.203, *c* 7.899 Å, β 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
$Ni_3Fe^{3+}Cl(OH)_8 \cdot 2H_2O$
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
$[Cu_6Sb_2S_7][Ag_9CuS_4]$
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
$(NH_4)_2SnCl_6$
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
$[Na_{82.5}Ca_{33}K_{16.5}]_{132}(Si_{99}Al_{99}O_{396})(SO_4)_{33} \cdot 4H_2O$
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**
Tommot, Yakutia, Russia
Gunnar Raade
$(Y,REE,Ca,Na,Mn)_{15}Fe^{2+}Ca\ (P,Si)Si_6B_3(O,F)_{48}$
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
$CaMgAl_2(PO_4)_2(OH)_4 \cdot 7H_2O$
Triclinic: $P\bar{1}$
a 19.819, *b* 12.858, *c* 5.468 Å, α 90.088, β 89.067, γ 91.032°

IMA No. **2008-009**
Kirovskii underground apatite mine, Mountain Kukisvumchorr, Khibiny alkaline complex, Kola Peninsula, Russia
Igor V. Pekov
$Sr_5(PO_4)_3F$
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
$CaCu_4(AsO_4)_2(AsO_3OH)_2 \cdot 10H_2O$
Lindackerite group
Triclinic: $P\bar{1}$; structure determined
a 6.432, *b* 7.986, *c* 10.827 Å, α 85.75, β 81.25, γ 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
$Pb_{20}Cd_2(As,Bi)_{22}S_{50}Cl_{10}$
Zinkenite plesiotypic series
Monoclinic: *C*2/*c*; structure determined
a 8.352, *b* 45.592, *c* 27.261 Å, β 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
$ZnFe^{3+}_4(PO_4)_3(OH)_5$
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

Tl_3BiCl_6
New structure type
Monoclinic: *Cc*; structure determined
a 26.686, *b* 15.127, *c* 13.014 Å, β 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
$Na_4Bi(SO_4)_3Cl$
Cesanite 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
Ti_2O_3
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
$Fe^{3+}{}_3(AsO_4)_2(OH)_3{\cdot}3H_2O$
Related to tinticite
Orthorhombic: *Pccm, Pcc*2, *Pcmm, Pcm*2_1 or *Pc*2*m*
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
$Li\{Ti_2(OH)_2[Si_4O_{11}(OH)]\}{\cdot}H_2O$
Related to lintisite and kukisvumite
Monoclinic: *C*2/*c*; structure determined
a 26.68, *b* 8.75, *c* 5.24 Å, β 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
$K(\square,Na)Mg_2(Be_2Mg)Si_{12}O_{30}$
Milarite group
Hexagonal: *P*6/*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
BiSCl
Orhtorhombic: *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
$Pb^{2+}{}_5(OH)_5[Cu^{1+}(S^{6+}O_3S^{2-})_3](H_2O)_{1.67}$
Lead thiosulfate
Monoclinic: $P2_1/n$; structure determined
a 12.5631, *b* 8.8963, *c* 18.0132 Å, β 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
$UO_2(OH)_2$
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, β 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
$NaCa_2Be_3Si_4O_{13}(OH)\cdot 2H_2O$
Zeolite group; new structure type
Monoclinic: $P2_1$; structure determined
a 7.1222, *b* 19.8378, *c* 9.8071 Å, β 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
$(Ca,Na,REE,\square)_7(Nb,Ti)[Si_2O_7]_2OF_3$
Rinkite group
Monoclinic: *Cc*; structure determined
a 7.473, *b* 11.294, *c* 18.778 Å, β 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
$Pb_2Si_4O_{10}·H_2O$
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
Mn_5Si_3
Suessite group
Hexagonal: $P6_3/mcm$; 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
$Cu_3(Te^{6+}O_4)(OH)_4·5H_2O$
Monoclinic: $P2_1/m$ or $P2_1$
a 8.629, *b* 5.805, *c* 7.654 Å, β 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
$(NH_4)_3Fe(SO_4)_3$
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
$CaScAlSiO_6$
Pyroxene group
Monoclinic: $C2/c$
a 9.884 Å, *b* 8.988 Å, *c* 5.446 Å, β 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
$NdVO_4$
Xenotime group
Tetragonal: $I4_1/amd$
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
$CuCl_2 \cdot 2NH_3$
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
$Na_4[Si_2O_4(OH)_2]_2 \cdot 7H_2O$
New structure type
Monoclinic: $P2_1/c$; structure determined
a 9.8744, *b* 12.3981, *c* 14.8973 Å, β 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
$Pb_3Zn_3Sb^{5+}As_2O_{13}(OH)$
Dugganite group
Trigonal: *P*321; 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
$CeSiO_4$
Zircon group
Tetragonal: $I4_1/amd$; 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
$(K_3Ca_2Na)[Al_8Si_8O_{32}] \cdot 12H_2O$
Zeolite group
Triclinic: $P\bar{1}$; structure determined
a 19.965, *b* 14.271, *c* 8.704 Å, α 88.37, β 125.08, γ 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

$Ca_9Mg(PO_3F)(PO_4)_6$
Whitlockite group
Trigonal: *R*3*c*; 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
$Ca_7(SiO_4)_3(OH)_2$
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
$(NH_4)_3PbCl_5$
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
$BiMo_2O_7(OH)\cdot 2H_2O$
New structure type
Monoclinic: $P2_1/m$; 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
$Na_7(Al_{5\text{-}6}Si_{6\text{-}7}O_{24})(C_2O_4)_{0.5\text{-}1.0}\cdot 5H_2O$
Cancrinite group
Hexagonal: $P6_3$; 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_3O_5
Related to berdesinskiite
Monoclinic: *C*2/*c*; structure determined
a 10.032(2), *b* 5.050(1), *c* 7.000(1) Å, β = 111.14(1)º
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
$Ca_5(SiO_4)_2F_2$
Fluorine-dominant counterpart of reinhardbraunsite
Monoclinic: $P2_1/a$; structure determined
a 11.4340(19), *b* 5.0575(9), *c* 8.8657(16) Å, β = 108.860(12)˚
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
$MgZr(PO_4)_2 \cdot 4H_2O$
Isochemical with mahlmoodite
Triclinic, $P\bar{1}$: structure determined
a 5.3049(2), *b* 9.3372(4), *c* 9.6282(4) Å, α 97.348(1), β 91.534(1), γ 90.512(1)º
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
$Cd_3Zn_2(AsO_3OH)_2(AsO_4)_2 \cdot 4H_2O$
Hureaulite group
Monoclinic: *C*2/*c*; structure determined
a 18.062(4), *b* 9.341(19), *c* 9.844(2) Å, β 96.12(3)º
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
$Zn_6(PO_4)_4 \cdot 7H_2O$
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, α 71.68(3), β 82.02(3), γ 80.18(3)º
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
$(Ca,Na)_2(Al,Mg,Fe^{2+})(Si_2O_7)$
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

$Ni(UO_2)_2(AsO_4)_2 \cdot 8H_2O$
Autunite group
Triclinic: $P\bar{1}$
a 7.194(2), *b* 9.759(5), *c* 13.231(7) Å, α 75.53(3), β 84.01(3), γ 81.59(3)º
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
$Ca_2Ni(AsO_4)_2 \cdot 2H_2O$
Fairfieldite group
Triclinic: *P*
a 5.858(7), *b* 7.082, (12), *c* 5.567(6) Å, α 97.20(4), β 109.11(5), γ 109.78(5)º
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
$KNaSiF_6$
New structure type; identical with synthetic $KNaSiF_6$
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
$Cu_3O[AsO_3(OH)]_2 \cdot H_2O$
Related to theoparacelsite
Monoclinic: *C*2/*m*
a 19.158, *b* 2.9361, *c* 9.193 Å, β 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
$Na_2Ca_5(SO_4)_6 \cdot 3H_2O$
Related to bassanite
Monoclinic: *C*2
a 12.08, *b* 6.96, *c* 6.39 Å, β 89.8º
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 $CoSe_2$ (marcasite group), is discredited. The type material has been shown to be consist of ferroselite, $FeSe_2$.

STATUS OF OLGITE AN BARIO-OLGITE

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

It is stated, in several media, that bario-olgite, 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-olgite is not distinct from olgite, 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-olgite. 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-olgite and the members of the CNMMN.

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

1. Until 2004, olgite 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), $Na(Sr,Ba)PO_4$, and to the composition of the *M*1 structural site as obtained by Sokolova *et al.* (1984), $(Sr_{0.52}Ba_{0.48})$, on type material from Mt. Karnasurt, Lovozero massif, Kola Peninsula, Russia.
2. Sokolova *et al.* (1990) published data on 'olgite II' and 'olgite III' (the original olgite being 'olgite I'), two specimens from Mt. Alluaiv in the Lovozero massif having Ba as dominant constituent on the *M*1 site. This paper failed to give a clear definition of olgite, no nomenclatural distinction was made between the 1984 olgite (Sr-dominant *M*1) and the 1990 olgite (Ba-dominant *M*1).
3. Pekov *et al*. started in 2002 a study on 'olgite' specimens from several pegmatites and hydrothermal veins at Mt. Kedykverpakhk in the Lovozero massif. The results indicated that 'olgite' consists of two mineral species, with either Sr or Ba dominant on the *M*1 site. Because olgite was traditionally interpreted as a strontium mineral, Pekov *et al.* (2004) published their material with a Ba-dominant *M*1 site as the new mineral bario-olgite after approval by the CNMMN in 2003. It is evident that 'olgite II' and 'olgite III' are also bario-olgite. Pekov (2005) published data of an 'olgite' specimen from one of the veins having a Sr-dominant *M*1 composition of $(Sr_{0.57}Ba_{0.42}K_{0.01})$.
4. Sokolova *et al.* (2005) re-examined the material described previously as 'olgite I' (= the original type material) and 'olgite III'. They found that the real space group of these specimens is *P*-3*m*1, not *P*3 as published in 1984 and 1990 and also by Pekov *et al.* (2004) for bario-olgite. The change of space group has no implications for the occupancy of the *M*1 site, which is identical in both space groups. The new data obtained on the type 'olgite I' specimen, however, show that its *M*1 site has a

composition ($Ba_{0.76}Sr_{0.20}K_{0.04}$). 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 *M*1 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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