

NEW MINERALS APPROVED IN 2005
NOMENCLATURE MODIFICATIONS APPROVED IN 2005
BY THE
COMMISSION ON NEW MINERALS AND MINERAL NAMES
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: $d(\text{Å})$, (Intensity)

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

This list is also available on the CNMMN website:

<http://sheba.geo.vu.nl/~ima-cnmmn/minerals2005.pdf>

NO OTHER INFORMATION WILL BE RELEASED BY THE COMMISSION

2005 PROPOSALS

IMA No. **2005-002**

Uroi hill, Hunedoara district, Romania

Hans-Peter Bojar

$(\text{Na,K})\text{Ca}_2(\text{Mg,Fe}^{3+},\text{Ti})_5(\text{Si,Al})_8\text{O}_{22}\text{F}_2$

Amphibole group

Monoclinic: $C2/m$; structure determined

a 9.872, b 18.007, c 5.314 Å, β 105.37°

9.007(27), 8.421(61), 3.376(44), 3.271(61), 3.124(100), 2.931(35), 2.805(28), 2.700(54)

IMA No. **2005-003**

Bota-Burum, Kazakhstan

Nikita V. Chukanov

$\text{Al}(\text{UO}_2)_2(\text{AsO}_4)_2(\text{F},\text{OH})\cdot 6.5\text{H}_2\text{O}$

Related to threadgoldite

Monoclinic: $P2/m$, $P2$ or Pm

a 19.99, b 9.79, c 19.62 Å, β 110.7°

9.34(100), 9.14(100), 4.93(18), 4.87(20), 4.76(27), 4.69(17), 3.55(15), 2.281(13)

IMA No. **2005-004**

Tolbachik volcano, Kamchatka Peninsula, Russia

Sergey V. Krivovichev

$\text{VO}(\text{SO}_4)$

New structure type

Orthorhombic: $Pnma$; structure determined

a 7.389, b 6.274, c 7.079 Å

5.11(27), 4.70(18), 3.54(31), 3.28(100), 3.14(73), 2.845(18), 2.237(17), 2.209(17)

IMA No. **2005-005a**

Prairie Lake, Thunder bay district, Ontario, Canada

Anton R. Chakhmouradian

$\text{Na}_2\text{Ca}_4(\text{Nb},\text{Zr})_2(\text{Si}_2\text{O}_7)_2(\text{O},\text{F})_4$

Cuspidine group

Monoclinic: $P2_1$; structure determined

a 10.845, b 10.226, c 7.272 Å, β 109.33°

3.64(m), 3.23(m), 3.04(s), 2.98(s), 2.85(s), 2.48(m), 2.42(m), 2.02(s)

IMA No. **2005-006**

Greenwood iron mine, Harriman State Park, Tuxedo, Orange County, New York, USA

Marian V. Lupulescu

$\text{KCa}_2(\text{Fe}^{2+}_2\text{Mg}_2\text{Fe}^{3+})_{\Sigma 5}(\text{Si}_6\text{Al}_2)_{\Sigma 8}\text{O}_{22}\text{F}_2$

Amphibole group

Monoclinic: $C2/m$; structure determined

a 9.9480, b 18.1777, c 5.3302 Å, β 105.140°

8.499(100), 3.401(11), 3.299(32), 3.151(76), 2.830(53), 2.722(23), 2.402(17), 1.661(10)

IMA No. **2005-007**

Dashkesan Co-Fe deposit, Minor Caucasus, Azerbaijan

Igor V. Pekov

$\text{KCa}_2(\text{Fe}^{2+}_3\text{MgFe}^{3+})_{\Sigma 5}(\text{Si}_6\text{Al}_2)_{\Sigma 8}\text{O}_{22}\text{Cl}_2$

Amphibole group

Monoclinic: $C2/m$; structure determined

a 9.964, b 18.31, c 5.351 Å, β 105.0°

8.53(100), 3.32(11), 3.16(51), 2.981(12), 2.839(18), 2.749(23), 2.191(10)

IMA No. **2005-008**

Vetralla, Viterbo Province, Latium, Italy

Athos Callegari

$(\text{Ca}_8\text{REE}_2)_{\Sigma 10}(\text{Al}_{0.5}\text{Fe}^{3+}_{0.5})_{\Sigma 1}(\square,\text{Be})_2\text{Si}_6\text{B}_8\text{O}_{36}(\text{OH},\text{F})_2$

Hellandite group

Monoclinic: $P2/a$; structure determined

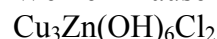
a 28.097, b 4.777, c 10.236 Å, β 96.81°

3.33(40), 3.20(31), 3.01(34), 2.90(45), 2.78(43), 2.65(100), 1.91(48), 1.74(28)

IMA No. **2005-009**

Sounion mine #19, Lavrion, Attica, Greece

Werner Krause



Polymorphous with herbertsmithite

Trigonal: $P\bar{3}m1$; structure determined

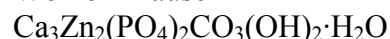
a 6.300, c 5.733 Å

5.73(100), 2.865(11), 2.761(12), 2.730(39), 2.464(81), 1.976(32), 1.576(17), 1.519(10)

IMA No. **2005-010**

Skorpion zinc deposit, Namibia

Werner Krause



New structure type

Monoclinic: $C2/c$; structure determined

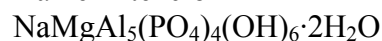
a 19.045, b 9.320, c 6.525 Å, β 92.73°

9.501(53), 5.328(30), 3.170(100), 3.063(42), 3.014(54), 2.788(67), 2.582(21), 2.260(21)

IMA No. **2005-011**

Gentil mine, Mendes Pimentel County, Minas Gerais, Brazil

Daniel Atencio



Dufrénite group

Monoclinic: $C2/c$; structure determined

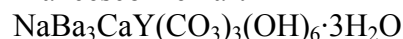
a 25.075, b 5.0470, c 13.4370 Å, β 110.97°

11.75(86), 6.58(100), 4.02(50), 3.297(25), 3.109(60), 2.670(49), 1.941(34), 1.543(37)

IMA No. **2005-012a**

Fabi quarry, near Lanzada, Valmalenco, Sondrio, Lombardy, Italy

Francesco Demartin



Donnayite group

Triclinic: $P1$; structure determined

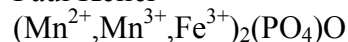
a 9.1526, b 9.1574, c 13.7953 Å, α 109.43, β 109.33, γ 60.00°

6.394(36), 4.312(48), 3.187(28), 3.114(100), 2.641(27), 2.614(35), 2.032(29), 2.013(27)

IMA No. **2005-013**

Helikon II pegmatite, Karibib, Namibia

Paul Keller



Triplite/triploidite groups

Monoclinic: $I2/a$; structure determined

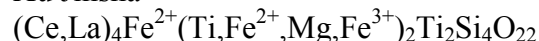
a 11.888, b 6.409, c 9.804 Å, β 106.17°

3.600(4), 3.209(6), 3.077(8), 2.819(10), 2.184(4), 2.082(5), 1.787(5), 1.495(5)

IMA No. **2005-014**

Bayun Obo iron mine, Inner Mongolia, China

Xu Jinsha



Chevkinite group

Monoclinic: $P2_1/a$ (pseudo- $C2/m$); structure determined

a 13.4656, b 5.7356, c 11.0977 Å, β 100.636°

3.342(39), 3.198(68), 3.162(46), 3.095(39), 2.8702(52), 2.7524(100), 2.7263(98), 2.5460(54)

IMA No. **2005-015a**

Zhelezny mine, Kovdor carbonatite massif, Kola Peninsula, Russia

Sergey V. Britvin

$[Mg_{18}Al_6(OH)_4][Sr_2(CO_3,PO_4)_9(H_2O,H_3O)_{11}]$

Layered double hydroxide

Trigonal: space group not determined

a 16.055, c 25.66 Å

8.52(10), 6.41(6), 5.13(3), 4.27(6), 3.665(9), 3.547(9), 3.081(6), 2.513(1)

IMA No. **2005-016**

Carrière de la Flèche, near Bertrix, Ardennes, Belgium

Frédéric Hatert

$Ca_2(Al,Fe^{2+},Mg)Al_2(SiO_4)(Si_2O_7)(OH,O)_2 \cdot H_2O$

Pumpellyite group

Monoclinic: $A2/m$; structure determined

a 8.818, b 5.898, c 19.126 Å, β 97.26°

8.735(35), 4.371(65), 3.787(80), 3.040(70), 2.912(95), 2.895(100), 2.731(40), 2.191(45)

IMA No. **2005-017**

Indarch meteorite, Shusha, Nagorno-Karabakh, Azerbaijan

Sergey N. Britvin

$(Fe,Zn)S$

Sphalerite group

Cubic: $F 43m$

a 5.426 Å

3.130(100), 2.714(10), 1.919(50), 1.634(40), 1.246(30), 1.107(30), 1.045(30)

IMA No. **2005-018**

Gambatesa mine, Val Graveglia, Genova, Italy

Maria Franca Brigatti

$Ca_2(V^{3+},Fe^{3+},Mg)(V^{3+},Al)_2(Si,Al)_3(O,OH)_{14}$

Pumpellyite group

Monoclinic: $C2/m$; structure determined

a 19.2889, b 6.0444, c 8.8783 Å, β 97.328°

4.739(34), 3.817(70), 2.930(100), 2.756(34), 2.551(62), 2.548(65), 2.367(51), 1.612(57)

IMA No. **2005-019**

Mt. Alluaiv, Lovozero alkaline massif, Kola Peninsula, Russia

Alexander P. Khomyakov

$Na_{30}(Ca,Na,Ce,Sr)_{12}(Na,Mn,Fe,Ti)_6Zr_3Ti_3MnSi_{51}O_{144}(OH,H_2O,Cl)_9$

Eudialyte group

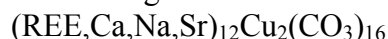
Trigonal: $R3m$; structure determined

a 14.153, c 60.72 Å

7.11(40), 4.31(50), 2.964(100), 2.839(90), 2.675(30), 2.159(60), 1.770(60), 1.362(50)

IMA No. **2005-020**

Paratoo copper mine, near Yunta, Olary Province, South Australia, Australia
Allan Pring



Orthorhombic: $P222$ or $P222_1$

a 10.0862, b 12.8088, c 7.2360 Å

5.04(53), 4.80(49), 3.96(43), 3.48(43), 2.94(100), 2.93(52), 2.53(52), 1.97(56)

IMA No. **2005-021a**

Mangazeiskoye silver ore deposit, Eastern Yakutia, Siberia, Russia

Gennady N. Gamyarin



Aluminite group

Triclinic: $P1$ or $P\bar{1}$

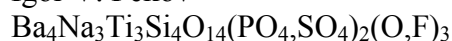
a 8.286, b 9.385, c 11.35 Å, α 96.1, β 98.9, γ 96.6°

8.14(19), 7.59(49), 7.16(46), 4.520(13), 4.258(100), 4.060(48), 3.912(43), 3.795(12)

IMA No. **2005-022**

Mica Mine, Kovdor alkaline-ultramafic complex, Kola Peninsula, Russia

Igor V. Pekov



Bafertisite series

Triclinic: $P1$ or $P\bar{1}$

a 5.38, b 7.10, c 14.76 Å, α 99.00, β 94.94, γ 90.14°

14.5(100), 3.455(40), 3.382(35), 2.921(35), 2.810(40), 2.683(90), 2.133(80), 2.059(40)

IMA No. **2005-023**

Jacupiranga mine, Cajati County, São Paulo, Brazil.

Daniel Atencio



Cubic: $Im\bar{3}$; structure determined

a 13.017 Å

9.183(100), 4.592(12), 4.136(11), 3.256(16), 3.070(13), 2.923(11), 2.655(13), 1.741(21)

IMA No. **2005-024**

Pirquitas mining district, Puna Region, Rinconada Department, Jujuy Province, Argentina

Werner Paar



Franckeite solid-solution series

Two monoclinic sub-cells:

Q layer: a 5.839, b 5.862, c 17.324 Å, β 94.073°

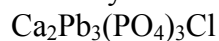
H layer: a 6.278, b 3.660, c 17.347 Å, β 91.416°

4.27(61), 3.426(72), 3.345(87), 3.122(78), 3.009(71), 2.966(94), 2.883(100), 2.065(51)

IMA No. **2005-026**

Capitana mine, Copiapó, Atacama Province, Chile

Anthony R. Kampf



Apatite group

Hexagonal: $P6_3/m$; structure determined

a 9.857, c 7.130 Å
8.538(20), 4.054(60), 3.565(30), 2.942(100), 2.882(30), 2.139(35), 1.918(25), 1.890(25)

IMA No. **2005-027**

Acapulcoite achondrite 'Northwest Africa 1054'

Vanni Moggi-Cecchi

(Ni,Fe)₄P

New structure type

Cubic: $P2_13$; structure determined

a 6.025 Å

2.694(15), 2.005(100), 1.906(60), 1.816(20), 1.420(10), 1.348(10), 1.182(15), 1.119(15)

IMA No. **2005-028**

Kirovskii apatite mine, Kukisvumchorr, Khibiny alkaline massif, Kola Peninsula, Russia

Igor V. Pekov

$K_3Na_2Mn_5Si_{12}(O,OH)_{36} \cdot 2H_2O$

Related to ganophyllite- and stilpnomelane-group minerals

Monoclinic: $P2_1/m$ or $P2_1$

a 12.55, b 5.721, c 26.86 Å, β 114.04°

12.28 (100), 4.31(81), 3.555(62), 2.840(90), 2.634(88), 2.366(76), 1.669(64), 1.614(56)

IMA No. **2005-029**

Pegmatite #61, Karnasurt, Lovozero, Kola Peninsula, Russia

Igor V. Pekov

$K_2Ca(Nb,Ti)_4(Si_4O_{12})_2(O,OH)_4 \cdot 6H_2O$

Labuntsovite group

Monoclinic: $C2/m$; structure determined

a 14.6365, b 14.2049, c 7.8919 Å, β 117.467°

7.100 (100), 6.999(88), 6.476(38), 4.985(78), 3.252(42), 3.246(43), 3.167(46), 3.140(36)

IMA No. **2005-030**

De-Mix quarry, Mont Saint-Hilaire, Québec, Canada

Igor V. Pekov

$(K,Na)_2Na(Nb,Ti)_4(Si_4O_{12})_2(OH,O)_4 \cdot 5H_2O$

Labuntsovite group

Monoclinic: $C2/m$; structure determined

a 14.626, b 14.160, c 7.910 Å, β 117.43°

7.102(29), 7.044(54), 6.510(42), 4.995(44), 3.252(51), 3.249(100), 3.163(24), 3.148(28)

IMA No. **2005-031**

Umbozero mine, Alluaiv, Lovozero, Kola Peninsula, Russia

Giovanni Ferraris

$(Na,Sr)_3(Fe^{3+},Mg)_{10}[Ti_2Si_{12}O_{37}](O,OH)_9 \cdot 8H_2O$

Related to nafertisite

Monoclinic: $P2/n$ (?)

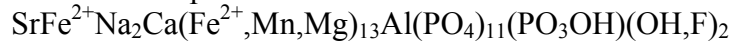
a 16.47, b 5.303, c 24.39 Å, β 93.5°

14.1(20), 13.3(30), 12.1(100), 4.38(10), 2.968(8), 2.923(8), 2.692(12), 2.631(13)

IMA No. **2005-032**

Horrköping, Värmland, Sweden

Christian Chopin



Arrojadite group

Monoclinic: *Cc*; structure determined

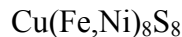
a 16.3992, *b* 9.9400, *c* 24.4434 Å, β 105.489°

3.3784(26), 3.1925(41), 3.0093(100), 2.8202(24), 2.8050(28), 2.7383(28), 2.6854(70), 2.5291(23)

IMA No. **2005-033**

Horoman, Samani-cho, Urakawa-gun, Japan

A. Kitazake



Pentlandite group

Tetragonal: *P4₂/mnm*

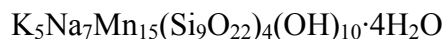
a 10.566, *c* 9.749 Å

3.061(74), 2.975(32), 2.641(33), 2.072(100), 1.962(38), 1.954(42), 1.804(83), 1.791(85)

IMA No. **2005-035**

Mt. Kukisvumchorr, Kola Peninsula, Russia

Victor N. Yakovenchuk



Modulated manganese phyllosilicate

Monoclinic: *C2/m*; structure determined

a 17.3335, *b* 23.5390, *c* 13.4895 Å, β 115.069°

12.9(9), 11.7(10), 3.021(9), 2.805(5), 2.608(8), 2.352(6), 1.668(6), 1.659(6)

IMA No. **2005-036**

Felbertal scheelite deposit, Salzburg Province, Austria

Dan Topa



Pavonite homologous series

Monoclinic: *C2/m*; structure determined

a 13.380, *b* 4.0007, *c* 31.083 Å, β 93.064°

3.6066(57), 3.4574(100), 3.4357(37), 3.3401(34), 2.9526(29), 2.8742(33), 2.8335(99), 2.2558(29)

IMA No. **2005-037**

Sparone, Val di Locana, Piedmont, Italy

Marco Pasero



Ardennite group

Orthorhombic: *Pnmm*

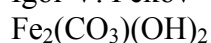
a 8.760, *b* 5.838, *c* 18.56 Å

2.948(90), 2.609(100), 2.329(38), 2.271(37), 2.033(55), 1.585(75), 1.525(39), 1.477(45)

IMA No. **2005-039**

Dronino meteorite, Kasimov District, Ryazan Oblast, Russia

Igor V. Pekov



Malachite group

Monoclinic: $P2_1/m$ or $P2_1$
 a 9.639, b 12.226, c 6.492 Å, β 96.06°
6.13(40), 5.15(60), 3.73(80), 2.798(95), 2.645(100), 2.361(40), 2.171(40), 1.733(50)

IMA No. **2005-040**

Johnston Fjord, Stornes Peninsula, Prydz Bay, East Antarctica

Edward S. Grew

$(Y, Ca)Na_6(Ca, Na)_8(Mg, Fe)_{43}(PO_4)_{36}$

Fillowite group

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

a 14.9628, c 42.756 Å

3.67(40), 3.52(40), 3.18(10), 2.94(60), 2.73(100), 2.62(10), 2.47(30), 1.84(40)

IMA No. **2005-042**

Bou Azzer, Anti-Atlas, Morocco

Joël Brugger

$(Mg, \square)_{11}Bi_6(Fe, Cr)_{14}(AsO_4, CrO_4)_{14}[AsO_3(H_2O)]_4O_{12}(OH)_4(H_2O)_{86}$

New structure type

Monoclinic: $P2_1/n$; structure determined

a 13.6322, b 30.469, c 18.4671 Å, β 91.134°

15.78(60), 12.45(70), 11.79(100), 10.98(80), 10.16(80), 7.900(80), 3.414(40), 3.153(40)

IMA No. **2005-043**

Bota-Burum uranium deposit, Kazakhstan

Nikita V. Chukanov

$(NH_4, H_3O)_2(UO_2)_2(AsO_4, PO_4)_2 \cdot 6H_2O$

Meta-autunite group

Tetragonal: $P4/mmm$

a 7.19, c 9.15 Å

9.27(100), 4.58(25), 3.86(20), 2.80(13), 2.28(20), 2.076(6), 1.823(8), 1.713(7)

IMA No. **2005-044**

Aghbar mine near Bou Azzer, Anti-Atlas, Morocco

Nicolas Meisser

$MgAl_2(AsO_4)_2(OH)_2 \cdot 8H_2O$

Laueite group

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

a 5.436, b 7.075, c 10.500 Å, α 97.701, β 102.021, γ 110.295°

9.9 (100), 6.4(90), 4.90(80), 4.08(50), 3.314(40), 3.198(60), 2.885(60), 2.622(60)

IMA No. **2005-045**

Kunratice near Šluknov, Northern Bohemia, Czech Republic

František Laufek

Ni_2SbTe_2

Nickeline group

Hexagonal: $P6_3/mmc$; structure determined

a 3.9090, c 15.6820 Å

3.3848(13), 2.8421(81), 2.0704(16), 1.9556(100), 1.6114(23), 1.4218(7), 1.2437(20), 1.1290(14)

IMA No. **2005-046a**

Tolbachik volcano, Kamchatka Peninsula, Russia

Nikita V. Chukanov



Monoclinic: $P2/m$ or $P2_1/m$

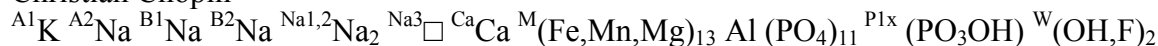
a 24.34, b 5.878, c 11.626 Å, β 86.7°

11.63(100), 5.88(20), 5.80(27), 5.73(17), 5.12(12), 3.052(15), 2.518(19), 2.321(17)

IMA No. **2005-047**

Rapid Creek, Yukon Territory, Canada

Christian Chopin



Arrojadite group

Monoclinic: Cc ; structure determined

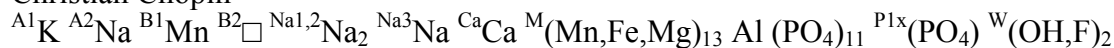
a 16.5520, b 10.0529, c 24.6477 Å, β 106.509°

5.86(29), 5.03(28), 3.009(34), 3.050(100), 2.798(25), 2.793(28), 2.777(24), 2.698(71)

IMA No. **2005-048**

Branchville, Fairfield Co., Connecticut, USA

Christian Chopin



Arrojadite group

Monoclinic: Cc ; structure determined

a 16.6900, b 10.1013, c 24.8752(13) Å, β 105.616°

5.97(27), 3.245(33), 3.063(100), 2.868(27), 2.788(27), 2.779(29), 2.730(89), 2.570(27)

IMA No. **2005-049**

Grube Vereinigung, near Eisenbach, Taunus, Hesse, Germany

Uwe Kolitsch



Dimorphous with kintoreite

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

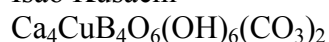
a 5.307, b 7.209, c 7.349 Å, α 87.75, β 86.36, γ 71.42°

6.84(64), 4.85(100), 4.17(26), 3.667(47), 3.547(57), 3.417(52), 3.022(51), 2.834(45)

IMA No. **2005-050**

Fuka mine, Fuka, Bitchu-cho, Takahashi City, Okayama Prefecture, Japan

Isao Kusachi



Cu-dominant analogue of borcarite

Monoclinic: $C2/m$

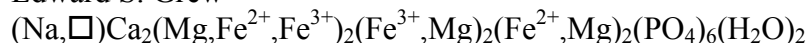
a 17.794, b 8.381, c 4.4494 Å, β 102.42°

7.57(100), 2.899(44), 2.727(68), 2.671(84), 2.272(48), 2.201(28), 1.887(52), 1.698(34)

IMA No. **2005-051**

Johnston Fjord, Stornes Peninsula, Larsemann Hills, Prydz Bay, East Antarctica

Edward S. Grew



Wicksite group

Orthorhombic: $Pbca$; structure determined

a 12.4899, b 11.6264, c 12.7825 Å
6.40(5), 3.497(40), 3.000(80), 2.895(80), 2.735(100), 2.545(10), 2.091(30)

IMA No. **2005-053**

Jáchymov Ag-Bi-Co-Ni-U deposit, Krušné hory Mts., western Bohemia, Czech Republic

Jiří Sejkora



Zn-dominant analogue of lindackerite

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

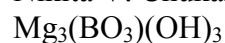
a 6.3948, b 8.0024, c 10.3557 Å, α 85.488, β 79.354, γ 84.673°

10.185(100), 7.974(12), 3.987(13), 3.637(15), 3.395(37), 3.238(15), 2.910(12), 2.668(16)

IMA No. **2005-054**

Titoskoe deposit, Chersky range, basin of the river Dogdo, Sakha Republic (Yakutia), Russia

Nikita V. Chukanov



OH-dominant analogue of fluoborite

Hexagonal: $P6_3/m$

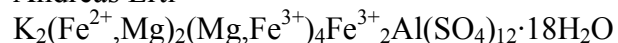
a 8.912, c 3.112 Å

7.69(52), 4.45(82), 2.916(42), 2.573(65), 2.551(49), 2.422(100), 2.141(44), 2.128(60)

IMA No. **2005-055**

Madeni Zakh, Iran

Andreas Ertl



Voltaite group

Tetragonal: $I4_1/acd$; structure determined

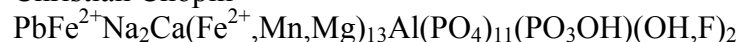
a 19.2080, c 27.2158 Å

5.543(28), 3.396(100), 3.136(21), 3.038(39), 2.848(31), 2.534(21), 2.078(29), 1.601(21)

IMA No. **2005-056**

Sapucaia pegmatite, Galileia, Minas Gerais, Brazil

Christian Chopin



Arrojadite group

Monoclinic: Cc ; structure determined

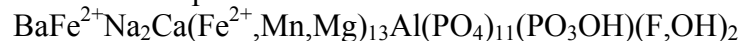
a 16.4304, b 9.9745, c 24.5869 Å, β 105.485°

3.208(43), 3.019(100), 2.829(35), 2.820(33), 2.750(29), 2.698(55), 2.694(32), 2.538(30)

IMA No. **2005-058a**

Sidi-bou-Kricha, Marrakech province, Morocco

Christian Chopin



Arrojadite group

Monoclinic: Cc ; structure determined

a 16.4970, b 10.0176, c 24.6359 Å, β 105.649°

3.400(31), 3.211(47), 3.032(100), 2.841(34), 2.759(33), 2.706(39), 2.703(68), 2.543(38)

IMA No. **2005-061a**

Sapucaia mine, Minas Gerais, Brazil

Daniel Atencio



Roscherite group

Monoclinic: $C2/c$

a 15.92, b 11.91, c 6.61 Å, β 96.4°

9.485(44), 5.943(100), 4.816(65), 3.169(44), 3.117(25), 3.065(22), 2.777(41), 2.643(42)

OLDER PROPOSALS

IMA No. **2002-032a**

Novodneprovskoe deposit, Kazakhstan

Galiya K. Bekenova

AuPb_3

Tetragonal: $I\bar{4} 2m$

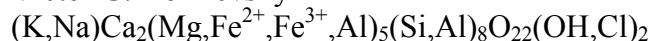
a 11.954, c 5.890 Å

2.792(2), 2.668(1), 2.423(1), 2.342(10), 1.8705(2), 1.5825(3), 1.4705(2), 1.3890(1)

IMA No. **2004-027b**

Lake Bolshoi Ishkul, Ilmen Mountains, Ilmen Nature Reserve, South Urals, Russia

Victor G. Korinevsky



Amphibole group

Monoclinic: $C2/m$

a 9.958, b 18.037, c 5.346 Å, β 105.498°

8.500(60), 3.385(41), 3.282(42), 3.135(100), 2.941(22), 2.720(45), 2.359(35), 2.168(29)

IMA No. **2004-042a**

Bunan deposit, Shandong Province, People's Republic of China

Xiang-Ping Gu

$\text{Ag}_9\text{FeTe}_2\text{S}_4$

Orthorhombic: space group unknown

a 12.769, b 14.814, c 16.233 Å

6.726(69), 6.416(39), 5.951(33), 3.265(100), 2.981(24), 2.188(71), 2.123(31), 1.949(33)

NOMENCLATURE MODIFICATIONS

IMA No. **05-B**

The name of the mineral noélbensonite has been modified in noelbensonite.

IMA No. **05-D**

A new nomenclature scheme has been approved for minerals of the arrojadite group, this will be published by the authors: Christian Chopin, Fernando Cámara and Roberta Oberti.

Minerals of this group will have root names (arrojadite or dickinsonite), followed by suffixes.

The species name sigimundite is replaced by the name arrojadite-(BaFe).

IMA No. **05-E**

Species and name natromontebbrasite are discredited because natromontebbrasite is a mixture of OH-rich amblygonite with lacroixite and subordinate wardite.

NULLIFIED CNMMN DECISION

Proposal 2004-051, hydrous alumina, was approved by the CNMMN (see publications 'Minerals approved in 2004). Several CNMMN members had asked, however, for a re-examination of akdalaite (69-002) which was approved as the first natural hydrous alumina. The authors of 2004-051 obtained holotype material of akdalaite from the Fersman museum in Moscow, and the re-examination showed that akdalaite and the material for 2004-051 are identical. The previously refined unit cell of akdalaite is incorrect, so that akdalaite and 2004-051 are actually the same mineral species. The name 'akdalaite' has priority; the fact that akdalaite was given a wrong space group does not necessitate a formal redefinition of this mineral. The re-examination and 2004-051 should be published as "New data and a new occurrence of akdalaite". The approval decision of the CNMMN on 2004-051 is consequently nullified.