

NEW MINERALS APPROVED IN 2006
NOMENCLATURE MODIFICATIONS APPROVED IN 2006
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

2006 PROPOSALS

IMA No. 2006-001

Tolbachik volcano, Kamchatka Peninsula, Russia

Sergey V. Krivovichev

$\text{Cu}_5\text{O}_2(\text{SeO}_3)_2\text{Cl}_2$

Dimorphous with georgbokiite

Monoclinic: $P2_1/c$; structure determined

a 5.3982, b 8.0543, c 11.128 Å, β 99.258°

3.22(90), 3.01(100), 2.61(80), 2.270(70), 2.117(60), 1.953(40), 1.482(40), 1.406(40)

IMA No. 2006-002

Mt. Kukisvumchorr, Kola Peninsula, Russia

Sergey V. Krivovichev

$\text{K}_3\text{NaCaY}_2(\text{Si}_{12}\text{O}_{30})\cdot 4\text{H}_2\text{O}$

New structure type

Orthorhombic: *Pcca*; structure determined

a 14.972, *b* 14.137, *c* 14.594 Å

7.00(4), 6.57(6), 5.25(3), 4.20(5), 3.337(10), 3.248(9), 3.101(4), 3.014(8)

IMA No. **2006-003**

Kaidun meteorite (South Yemen)

Michael E. Zolensky

FeCrP

Cr-dominant analogue of florenskyite

Orthorhombic: *Pnma*

a 5.833, *b* 3.569, *c* 6.658 Å

2.258(46), 2.247(100), 2.139(81), 2.074(31), 1.885(34), 1.866(31), 1.785(43), 1.298(22)

IMA No. **2006-004**

Brattnevet Peninsula, Larsemann Hills, Prydz Bay, East Antarctica

Edward S. Grew

(Mg,Fe)₃(PO₄)₂

Mg-dominant analogue of sarcopside

Monoclinic: *P2₁/c*; structure determined

a 5.9305, *b* 4.7583, *c* 10.2566 Å, β 90.663°

5.92(42), 4.31(29), 3.84(100), 3.48(37), 2.97(25), 2.77(46), 2.51(59), 2.44(40)

IMA No. **2006-005**

Hundholmen, Tysfjord, Nordland, north Norway

Gunnar Raade

(Y,REE,Ca,Na)₁₅(Al,Fe³⁺)Ca_xAs³⁺_{1-x}(Si,As⁵⁺)Si₆B₃(O,F)₄₈

Vicanite group

Trigonal: *R3m*; structure determined

a 10.675, *c* 27.02 Å

4.38(33), 3.114(43), 3.095(29), 2.972(100), 2.947(76), 2.924(66), 2.681(36), 1.978(37)

IMA No. **2006-006**

Augustinovka iron meteorite, Ekaterinoslav (now Dnepropetrovsk), Ukraine

Sergey N. Britvin

Na₄Fe₇(PO₄)₆

Fillowite group

Triclinic: *P1̄* or *P1*

a 9.643, *b* 9.633, *c* 17.645 Å, α 88.26, β 88.16, γ 64.83°

5.12(2), 3.034(10), 2.888(2), 2.715(8), 2.585(3), 2.405(2), 1.870(2), 1.769(2)

IMA No. **2006-007**

Karnasurt mine, Mountain Kedykverpakhk, Lovozero massif, Kola Peninsula, Russia.

Igor V. Pekov

Na₂[SiO₂(OH)₂]·8H₂O

New structure type

Orthorhombic: *Ibca*; structure determined

a 11.7119, *b* 16.973, *c* 11.5652 Å

5.001(30), 4.788(42), 3.847(89), 2.932(42), 2.832(35), 2.800(97), 2.774(100), 2.035(20)

IMA No. **2006-008**

Silver Coin mine, Valmy, Edna Mountains, Humboldt Co., Nevada, USA

Nikita V. Chukanov

$\text{ZnFe}^{3+}_2(\text{PO}_4)_2(\text{OH})$

Lipscombite group

Tetragonal: $P4_32_12$ or $P4_12_12$

a 7.242, c 13.125 Å

4.79(80), 3.326(100), 3.21(60), 2.602(45), 2.299(40), 2.049(40), 1.663(45), 1.605(50)

IMA No. **2006-009**

Mina Santa Rosa, Iquique, Northern Chile

Jochen Schlüter

$\text{Na}_2\text{CaPb}_3(\text{CO}_3)_5$

Burbankite group

Hexagonal: $P6_3mc$; structure determined

a 10.5564, c 6.6446 Å

3.769(100), 3.323(43), 3.066(51), 2.688(50), 2.640(65), 2.161(50), 2.066(34), 1.993(44)

IMA No. **2006-010**

Mountain Kukisvumchorr, Khibiny massif, Kola peninsula, Russia.

Igor V. Pekov

$(\text{Ca,REE})_5[(\text{Si,P})\text{O}_4]_3\text{F}$

Britholite group

Hexagonal: $P6_3/m$; structure determined

a 9.554, c 7.006 Å

3.51(45), 3.15(70), 2.85(100), 2.78(60), 1.965(25), 1.931(20), 1.236(25), 1.122(30)

IMA No. **2006-011**

Biancavilla, Catania, Mt. Etna, Sicily, Italy

Antonio Gianfagna

$\text{KMg}_3(\text{AlSi}_3)\text{O}_{10}\text{F}_2$

Mica group

Monoclinic (1M polytype): $C2/m$; structure determined

a 5.3094, b 9.1933, c 10.1437 Å, β 100.062°

9.990(8), 3.369(10), 3.324(10), 3.121(8), 2.610(8), 2.426(8), 1.663(8), 1.532(8)

IMA No. **2006-012**

Srednyaya Padma U-V deposit, southern Karelia, Russia

Andrey A. Chernikov

PdCuBiS_3

Lapieite group

Orthorhombic: $Pmmm$

a 7.541, b 6.482, c 11.522 Å

3.77(1), 3.24(4), 2.88(8), 2.52(6), 2.44(1), 1.900(10), 1.715(2), 1.672(1)

IMA No. **2006-013**

Miessijoki River, Lemmenjoki area, Inari commune, Lapland, Finland

Kari K. Kojonen

$\text{Pd}_{11}\text{Te}_2\text{Se}_2$

Isomertieite group

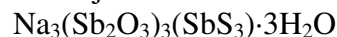
Cubic: $Fd\bar{3}m$

a 12.448 Å
2.543(20), 2.395(80), 2.197(100), 2.072(20), 1.875(25), 1.555(25), 1.305(25), 1.271(30)

IMA No. **2006-014**

Qinglong Sb-deposit, Qinglong County, Guizhou Province, People's Republic of China

Jiří Sejkora



Na-dominant analogue of cetineite

Hexagonal: $P6_3$

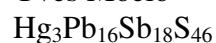
a 14.1758, *c* 5.5712 Å

12.29(60), 4.64(51), 4.13(52), 3.406(57), 2.991(77), 2.906(100), 2.679(51), 1.4842(51)

IMA No. **2006-015**

Buca della Vena deposit, Tuscany, Italy

Yves Moëlo



Sulphosalt

Monoclinic: $C 2/m$; structure determined

a 48.32, *b* 4.117, *c* 24.056 Å, β 118.84°

4.02(33), 3.480(64), 3.418(88), 3.106(31), 2.994(100), 2.922(41), 2.056(52), 1.764(41)

IMA No. **2006-016**

Kudryavy volcano, Iturup Island, Kurile Islands, Russia

Marina A. Yudovskaya



Cylindrite family

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

Pseudo-tetragonal subcell: *a* 23.4, *b* 5.77, *c* 5.83 Å, α 89.1, β 89.9, γ 91.5°

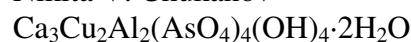
Pseudo-hexagonal subcell: *a* 23.6, *b* 3.6, *c* 6.2 Å, α 91, β 92, γ 90°

5.90(36), 3.90(100), 3.84(71), 3.166(26), 2.921(33), 2.902(16), 2.329(15),
2.186(18)

IMA No. **2006-017**

Christiana mine No. 132, Kamareza, Lavrion District, Attikí Prefecture, Greece

Nikita V. Chukanov



Orthorhombic: $Pban$, $Pbam$ or $Pba2$

a 10.01, *b* 8.199, *c* 22.78 Å

22.8(100), 11.36(60), 5.01(90), 3.38(50), 2.780(70), 2.682(30), 2.503(50), 2.292(20)

IMA No. **2006-018**

Uranium deposit Menzenschwand, Southern Black Forest, Baden-Württemberg, Germany

Kurt Walenta



Vanmeersscheite-althupite group

Orthorhombic: $P2_1mn$

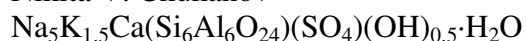
a 17.36, *b* 16.96, *c* 7.02 Å

12.21(8), 8.56(10), 6.07(8), 5.42(7), 4.25(8), 3.86(5), 3.33(7), 3.11(6)

IMA No. **2006-020**

Monte Cavalluccio, Campagnano municipality, Roma province, Latium region, Italy

Nikita V. Chukanov



Cancrinite group

Trigonal: $P31c$; structure determined

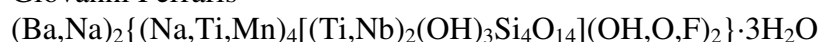
a 12.892, c 21.340 Å

11.3(70), 4.85(90), 4.03(60), 3.76(80), 3.68(70), 3.33(100), 2.795(60), 2.694(70)

IMA No. **2006-021**

Kirov mine, Mount Kukisvumchorr, Khibina alkaline massif, Kola Peninsula, Russia

Giovanni Ferraris



Bafertsite series

Polytype $1M$: Monoclinic, $P2/m$; structure modelled

a 5.37, b 7.00, c 24.05 Å, β 91.1°

Polytype $2M$: Monoclinic, $A2/m$; structure modelled

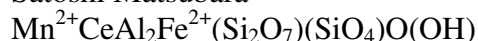
a 5.38, b 7.04, c 48.10 Å, β 91.1°

24.06(100), 7.05(9), 5.95(97), 3.95(6), 2.828(16), 2.712(19), 2.155(13)

IMA No. **2006-022**

Marutoku quarry, Shodoshima Island in Seto Inland Sea, Kagawa Prefecture, Japan

Satoshi Matsubara



Epidote group

Monoclinic: $P2_1/m$; structure determined

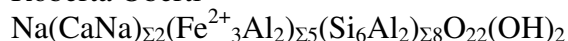
a 8.865, b 5.717, c 10.060 Å, β 114.520°

9.23(24), 8.03(26), 3.53(54), 2.92(100), 2.87(23), 2.71(43), 2.62(39), 2.14(19)

IMA No. **2006-023**

Liset, near Selje, Møre og Romsdal County, Vestlandet, Norway

Roberta Oberti



Amphibole group

Monoclinic: $C2/m$; structure determined

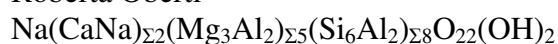
a 9.7489, b 17.9377, c 5.3233 Å, β 104.539°

8.352(100), 3.386(39), 3.098(68), 2.703(92), 2.586(48), 2.546(56), 2.322(40), 2.156(33)

IMA No. **2006-024**

Liset, near Selje, Møre og Romsdal County, Vestlandet, Norway

Roberta Oberti



Amphibole group

Monoclinic: $C2/m$; structure determined

a 9.7899, b 17.8991, c 5.3192 Å, β 104.900°

8.381(92), 3.374(56), 3.104(69), 2.934(41), 2.697(100), 2.580(53), 2.552(60), 2.325(41)

IMA No. **2006-025**

Jianchang, Su-Lu coesite-eclogite province, China

Roberta Oberti



Amphibole group

Monoclinic: $C2/m$; structure determined

a 9.7414, b 17.9095, c 5.3335 Å, β 104.672°

8.340(82), 3.384(47), 3.094(67), 2.700(100), 2.583(54), 2.551(64), 2.321(39), 2.153(35)

IMA No. **2006-026**

N'Chwaning II mine, Kalahari field, Republic of South Africa

Paola Bonazzi

CaMn[SiO₃(OH)](OH)

Mn-dominant analogue of poldervaartite

Orthorhombic: $Pbca$; structure determined

a 9.249, b 9.076, c 10.342 Å

4.14(60), 4.10(30), 3.19(100), 2.807(35), 2.762(30), 2.545(35), 2.521(30), 2.361(40)

IMA No. **2006-027**

Konder river, Ayan-Maya region, Aldan Plateau, Khabarovsk District, Russia

Yury S. Polekhovskiy

Pd₄Cu₃Zn

Tetragonal: possibly $P4/mmm$

a 6.00, c 8.50 Å

3.00(1), 2.67(1), 2.13(10), 1.737(1), 1.501(3), 1.346(2), 1.224(8), 1.059(4)

IMA No. **2006-028**

Granite pegmatite near the Piauí river, Itinga county, Minas Gerais, Brazil

Nikita V. Chukanov

Ca₂(Zn,Mg,Fe)₅Be₄(PO₄)₆(OH)₄·6H₂O

Roscherite group

Monoclinic: $C2/c$

a 15.98, b 11.84, c 6.63 Å, β 95.15°

9.48(90), 5.98(100), 4.82(80), 3.152(90), 3.052(70), 2.961(70), 2.841(70), 2.708(80)

IMA No. **2006-029**

Foote Mine, Kings Mountain District, Cleveland Co., North Carolina, USA

Daniel Atencio

Ca₂Mn²⁺□Mn²⁺₂Mn²⁺₂Be₄(PO₄)₆(OH)₄·6H₂O

Roscherite group

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

a 6.742, b 9.883, c 9.981 Å, α 74.12, β 86.10, γ 87.36°

9.393 (53), 5.922(100), 4.799(26), 3.173(44), 2.983(14), 2.787(35), 2.413(14)

IMA No. **2006-030**

Tsumeb, Namibia

John L. Jambor

Cu₅Ge_{0.5}S₄

Cubic: $Fm\bar{3}m$, $F432$, or $F\bar{4}3m$

a 5.337 Å

3.053(100), 2.639(10), 1.869(90), 1.595(30)

IMA No. **2006-031**

Långban deposit, Bergslagen ore region, Filipstad district, Värmland, Sweden

Nikita V. Chukanov

$\text{Pb}_{7+x}\text{Mg}_{4.5}[(\text{Si},\text{Al})_5\text{O}_{14}](\text{BO}_3)(\text{BO}_3,\text{AsO}_4)(\text{CO}_3)(\text{OH},\text{O})_7$

Layer silicate

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

a 9.3409, b 9.3597, c 18.8333 Å, α 80.365, β 75.816, γ 59.870°

18.1 (100), 3.39(30), 3.02(90), 2.698(70), 2.275(30), 1.867(30), 1.766(40), 1.519(40)

IMA No. **2006-032**

Konsomolsk mine, Talnakh, Norilsk, Russia

Julia D. Grtisenko

(Fe,Co)As₃

Skutterudite group

Cubic: $Im\bar{3}$

a 8.17 Å

5.8(3), 3.34(4), 2.585(10), 2.182(9), 1.928(4), 1.829(7), 1.667(5), 1.602(7), 1.402(6)

IMA No. **2006-033**

Kirovskii mine, Mt. Kukisvumchorr, Khibiny massif, Kola Peninsula, Russia

Igor V. Pekov

BaCa₂(CO₃)₂F₂

New structure type

Orthorhombic: $Cmcm$; structure determined

a 12.511, b 5.857, c 9.446 Å

5.303(21), 3.527(100), 3.397(71), 2.609(20), 2.313(43), 2.302(22), 1.948(39), 1.940(40)

IMA No. **2006-034**

La Fossa crater, Vulcano, Eolian Islands, Italy

Italo Campostrini

K₂[SiF₆]

Polymorphous with hieratite

Hexagonal: $P6_3mc$; structure determined

a 5.6461, c 9.2322 Å

4.90(25), 4.62(75), 4.32(43), 2.358(22), 2.301(100), 2.155(54), 1.909(14), 1.403(13)

IMA No. **2006-035**

NWA 470 chondrite, near Er Rachidia, Moroccan Sahara

Marina A. Ivanova

CaAl₂O₄

Monoclinic: $P2_1/c$

a 7.95, b 8.62, c 10.25 Å, β 93.10°

3.018(100), 2.920(83), 2.882(52), 2.559(42), 2.505(46), 2.371(31), 1.888(29), 1.467(29)

IMA No. **2006-036**

Jadar Basin, Serbia

Chris J. Stanley

LiNaB₃SiO₇(OH)

New structure type

Monoclinic: $P2_1/n$

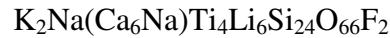
a 6.816, b 13.789, c 6.758 Å, β 111.08°

4.666(62), 3.716(39), 3.180(82), 3.152(74), 3.027(40), 2.946(100), 2.252(38), 2.241(74)

IMA No. **2006-037**

Dar-i-Pioz glacier, Alai mountain range, northern Tajikistan

Atali A. Agakhanov



Related to beryl-group and milarite-group minerals

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

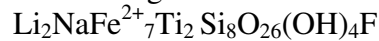
a 9.8156, b 9.8249, c 17.3087 Å, α 99.209, β 94.670, γ 119.839°

4.25(60), 3.35(100), 3.14(20), 3.06(90), 2.885(55), 2.870(10), 1.868(17), 1.848(40)

IMA No. **2006-038**

Dar-i-Pioz glacier, Alai mountain range, northern Tajikistan

Atali A. Agakhanov



Astrophyllite group

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

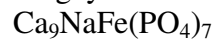
a 5.3745, b 11.9299, c 11.6509 Å, α 113.325, β 94.524, γ 103.080°

10.56(100), 3.50(100), 2.780(80), 2.648(45), 2.578(70), 2.295(30), 2.106(35), 1.760(30)

IMA No. **2006-039**

Shergotty meteorite, Gaya, Bihar, India

Sergey N. Britvin



Whitlockite group

Trigonal: $R3c$

a 10.372, c 37.217 Å

8.13(2), 6.42(2), 3.19(6), 2.990(2), 2.860(10), 2.747(2), 2.594(5), 1.917(2)

IMA No. **2006-040**

Benitoite Mine, New Idria District, San Benito County, California, USA

Chi Ma



Perovskite group

Orthorhombic: $Amm2$

a 3.9874, b 5.6751, c 5.6901 Å

4.018(18), 2.845(30), 2.830(100), 2.316(20), 2.312(23), 2.009(28), 1.637(19), 1.415(15)

IMA No. **2006-041**

132 North deposit, Widgiemooltha, Western Australia, Australia

Peter A. Williams



Atacamite group

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

a 6.8364, c 13.8459 Å

5.463(100), 4.651(16), 4.519(11), 2.903(19), 2.755(69), 2.728(14), 2.257(39), 1.820(13)

IMA No. **2006-042**

La Fossa crater, Vulcano, Aeolian Islands, Italy

Francesco Demartin



Orthorhombic: *Imm2*; structure determined

a 5.522, *b* 17.106, *c* 9.175 Å

8.55(50), 8.10(25), 4.724(25), 4.043(100), 3.175(30), 2.281(50), 2.095(25), 1.795(25)

IMA No. **2006-043**

La Fossa crater, Vulcano, Aeolian Islands, Italy

Francesco Demartin

TlPb_2Cl_5

Isostructural with challacolloite

Monoclinic: *P2₁/c*; structure determined

a 8.9477, *b* 7.9218, *c* 12.4955 Å, β 90.092°

3.971(83), 3.696(100), 2.851(38), 2.569(42), 2.273(22), 2.236(25), 2.109(45), 1.848(41)

IMA No. **2006-044**

Mont Peylenc, near the town of St. Pierre Eynac, Massif Central, France

Alessandro F. Gualtieri

$\text{NaK}_6\text{MgCa}_2(\text{Al}_{13}\text{Si}_{47}\text{O}_{120})\cdot 36\text{H}_2\text{O}$

Zeolite group

Orthorhombic: *Pmnm*; structure determined

a 7.5789, *b* 18.2010, *c* 26.1539 Å

9.077(60), 7.846(41), 4.234(44), 3.549(47), 3.484(71), 3.269(55), 3.182(100), 2.907(48)

IMA No. **2006-045**

East Mine, Bayan Obo, Inner Mongolia, China

Ritsuro Miyawaki

BaFCl

Matlockite group

Tetragonal: *P4/mmm*

a 4.3951, *c* 7.223 Å

3.75(100), 3.11(94), 2.79(67), 2.36(82), 2.20(32), 1.898(49), 1.726(34), 1.670(39)

IMA No. **2006-046**

Haydee mine, 144 km South of Iquique, Tarapacá Province, Northern Chile

Jochen Schlüter

$\text{Cu}_3\text{Mg}(\text{OH})_6\text{Cl}_2$

Atacamite group

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

a 6.2728, *c* 5.7462 Å

5.745(100), 2.872(17), 2.54(1), 2.455(2), 1.972(1), 1.915(9), 1.565(1), 1.437(1)

IMA No. **2006-047**

Kamariza, Lavrion, Attikí Prefecture, Greece

Nikita V. Chukanov

$\text{CuZn}(\text{AsO}_4)(\text{OH})$

Libethenite group

Orthorhombic: *Pnmm*; structure determined

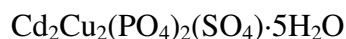
a 8.5839, *b* 8.5290, *c* 5.9696 Å

6.00(54), 4.860(64), 3.002(100), 2.690(67), 2.662(53), 2.456(94), 2.437(86), 1.604(49)

IMA No. **2006-048**

Broken Hill, New South Wales, Australia

Peter Elliott



New structure type

Orthorhombic: *Pnma*; structure determined

a 20.8938, *b* 6.1640, *c* 10.4768 Å

10.451(100), 5.146(30), 4.223(40), 3.484(40), 2.902(70), 2.719(30), 2.652(30), 1.919(80)

IMA No. **2006-049**

Hirao mine, Minoo (Minoh) City, Osaka Prefecture, Japan

Masayuki Ohnishi



New structure type

Triclinic: $P\bar{1}$

a 8.358, *b* 8.337, *c* 11.027 Å, α 94.97, β 83.16, γ 119.6°

10.96(100), 5.47(16), 3.642(17), 3.229(8), 2.717(21), 2.663(8), 2.562(9), 1.574(18)

IMA No. **2006-050**

Veta Negra, Laurani, Bolivia

Werner H. Paar



New structure type

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

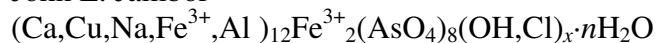
a 7.0308, *b* 9.8823, *c* 10.6754 Å, α 106.973, β 104.274, γ 93.839°

9.825(100), 5.887(50), 4.635(30), 3.354(30), 3.232(30), 2.947(60), 2.736(30), 2.442(30)

IMA No. **2006-052**

Dolores prospect, Pastrana, Murcia Province, Spain

John L. Jambor



Smolianinovite group (?)

Monoclinic: *P2/a* or *Pa*

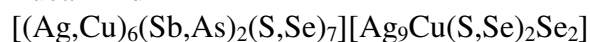
a 10.172, *b* 22.43, *c* 5.286 Å, β 93.09°

22.0(100), 11.2(70), 5.068(20), 3.345(20), 2.763(30), 2.660(20), 2.541(20)

IMA No. **2006-053**

De Lamar mine, Owyhee County, Idaho, U.S.A.

Luca Bindi



Pearceite-polybasite group

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

a 7.5950, *c* 12.0731 Å

3.1731(48), 3.0183(84), 2.8880(48), 2.8880(100), 2.5466(23), 2.3629(34), 2.2237(28), 1.8987(31)

IMA No. **2006-054**

Pereval quarry, Sludyanka, Irkutsk region, Siberia, Russia

Leonid Z. Reznitsky

$V_8Ti_6[Ba(Si_2O)]O_{28}$

Derbylite-hemloite group

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

a 7.521, b 7.643, c 9.572 Å, α 110.20, β 103.34, γ 98.28°

3.10(8), 2.85(10), 2.63(8), 2.23(6), 2.13(8), 1.781(8), 1.582(10), 1.433(10)

IMA No. **2006-055**

Ananai mine, Ohotoyo town, Kochi Prefecture, Japan

Tetsuo Minakawa

$CaSrAl_2Fe^{3+}(Si_2O_7)(SiO_4)O(OH)$

Epidote group

Monoclinic: $P2_1/m$; structure determined

a 8.925, b 5.651, c 10.243 Å, β 114.45°

3.500(42), 3.262(23), 2.921(100), 2.825(32), 2.724(41), 2.614(42), 2.580(49), 2.181(22)

IMA No. **2006-056**

Hefdetjern pegmatite, Tørdal, Drangedal, Telemark, Norway

Uwe Kolitsch

$ScTaO_4$

Wolframite group

Monoclinic: $P2/c$; structure determined

a 4.784, b 5.593, c 5.120 Å, β 91.15°

4.783(33), 3.807(32), 3.662(53), 3.000(100), 2.9570(97), 2.4877(34), 1.7639(27), 1.7157(22)

OLDER PROPOSALS

IMA No. **2001-003b**

Grube Silberbrünnle, Haigerach Valley near Gengenbach, Central Black Forest, Germany

Kurt Walenta

$KFe_3(H_2PO_4)_2(HPO_4)_4 \cdot 6H_2O$ or $KFe_3H_8(PO_4)_6 \cdot 6H_2O$

Hexagonal: $P6_3mc$

a 9.12, c 16.84 Å

7.89(4), 7.16(10), 4.57(7), 3.57(5), 3.23(6), 3.09(8), 2.87(4), 2.81(5)

IMA No. **2003-038a**

Bear Lake Diggings, Bancroft area, Ontario, Canada

Vladimir Bermanec

$[(Y,Ln),Ca,Th,Fe](Nb,Ti,Ta)_2(O,OH)_6$

Aeschynite group

Orthorhombic: $Pbnm$

a 5.279, b 10.966, c 7.443 Å

3.079(20), 3.009(100), 2.970(36), 2.931(69), 2.783(12), 2.636(12), 1.863(14), 1.580(16)

IMA No. **2005-034a**

Pittong, 6 km west of Linton, 35 km west of Ballarat, Victoria, Australia

William D. Birch

$Na_{0.22}[(W,Fe^{3+})(O,OH)_3 \cdot 0.44H_2O]$

New structure type

Hexagonal: $P\bar{6}m2$; structure determined

a 7.286, c 50.49 Å
5.956(52), 3.306(62), 3.153(100), 3.111(91), 2.450(59), 1.823(76), 1.578(64), 1.192(44)

IMA No. **2005-052a**

Luobusa mine, Qusong County, Tibet Autonomous Region, People's Republic of China

Bai Wenji

$\text{Fe}_{0.84}\text{Si}_2$

Orthorhombic: *Cmca*; structure determined

a 9.874, b 7.784, c 7.829 Å

3.06(80), 2.849(20), 2.402(25), 1.977(40), 1.889(60), 1.865(40), 1.844(100), 1.750(15)

IMA No. **2005-060**

Great Australia deposit, Cloncurry, Queensland, Australia

Peter A. Williams

$(\text{Cu}, \text{VO})\text{Al}_2(\text{PO}_4)_2(\text{F}, \text{OH})_2 \cdot 4.5\text{-}5\text{H}_2\text{O}$

New structure type

Monoclinic: *P2₁/c*; structure determined

a 4.9573, b 12.1824, c 18.9749 Å, β 90.933°

9.515(67), 6.101(100), 5.621(91), 4.753(17), 3.976(21), 3.338(21), 3.163(17), 3.047(13)

IMA No. **86-036a**

Parwan lava cave, 45 km WNW of Melbourne, Victoria, Australia

William D. Birch

$(\text{Na}, \text{K})(\text{Mg}, \text{Ca})_4\text{Al}_8(\text{PO}_4)_8(\text{CO}_3)(\text{OH})_7 \cdot 30\text{H}_2\text{O}$

Monoclinic: *P2, Pm, P2/m, P2₁, Pc* or *P2₁/c*

a 26.148, b 11.781, c 20.494 Å, β 111.27°

12.202(12), 10.538(100), 10.031(14), 9.570(13), 9.360(13), 8.937(10), 8.718(11), 4.878(10)

RECOMMENDED NOMENCLATURE OF EPIDOTE-GROUP MINERALS

The CNMMN has approved a new nomenclature scheme for epidote-group minerals. The full report has been published by the authors (Armbruster *et al.*) in European Journal of Mineralogy, 18 (2006), 551-567.

CHANGES IN EXISTING NOMENCLATURE

IMA No. **05-F**

A tripartite division of the system $2(\text{REEPO}_4) - \text{CaTh}(\text{PO}_4)_2 - 2(\text{ThSiO}_4)$ has been accepted. In this system, the species huttonite, monazite-(Ce), -(La), -(Nd) and -(Sm) represent members dominated by ThSiO_4 , CePO_4 , LaPO_4 , NdPO_4 and SmPO_4 , respectively. The name brabantite has been discredited, cheralite having priority as name for members dominated by $\text{CaTh}(\text{PO}_4)_2$.

IMA No. **06-A**

New nomenclature rules for the minerals of the pearceite-polybasite group:

1) The name pearceite is applied to minerals having $\text{As} > \text{Sb}$;

old formula: $(\text{Ag}, \text{Cu})_{16}(\text{As}, \text{Sb})_2\text{S}_{11}$ – new formula: $[\text{Ag}_9\text{CuS}_4][(\text{Ag}, \text{Cu})_6(\text{As}, \text{Sb})_2\text{S}_7]$

The name polybasite is applied to minerals having $\text{Sb} > \text{As}$;

old formula: $(\text{Ag}, \text{Cu})_{16}(\text{Sb}, \text{As})_2\text{S}_{11}$ – new formula: $[\text{Ag}_9\text{CuS}_4][(\text{Ag}, \text{Cu})_6(\text{Sb}, \text{As})_2\text{S}_7]$

2) The following names are applied to the known polytypes:
pearceite-*Tac* (As > Sb – unit-cell type 111 – old name: pearceite)
polybasite-*Tac* (Sb > As – unit-cell type 111 – old name: antimonpearceite)
pearceite-*T2ac* (As > Sb – unit-cell type 221 – old name: arsenpolybasite)
pearceite-*M2a2b2c* (As > Sb – unit-cell type 222 – old name: arsenpolybasite)
polybasite-*T2ac* (Sb > As – unit-cell type 221 – old name: polybasite)
polybasite-*M2a2b2c* (Sb > As – unit-cell type 222 – old name: polybasite)

IMA No. 06-C

About 130 minerals and/or mineral names have been discredited in preparation of an official CNMNC list of GQN minerals (G = grandfathered, Q = questionable, N = non-approved). After approval of the GQN list it will constitute together with the ARD list (A = approved, R = redefined, D = discredited) and some other categories (group names, polytypes, intermediate names) the official CNMNC list, to be made available as the MINERAL database (Nickel & Nicols), distributed by MDI. The list of discredited minerals and names has been published in *Canadian Mineralogist*, 44 (2006), 1557-1560.

IMA No. 06-D

Pradetite has been revalidated as a mineral species. The mineral was approved as 91-046, but after new results obtained on the holotype lindackerite, the CNMNC decided in 1995 that the latter name was to be preferred over pradetite. Single-crystal studies of lindackerite in 2003 showed that pradetite is the Co-dominant analogue of lindackerite. Mineral 2005-053 is the Zn-dominant analogue of lindackerite and pradetite. The revalidation paper will be published in *Archives des Sciences (Genève)* in 2007.

IMA No. 06-E

Species and name surkhobite (IMA 2002-037) have been discredited because the species corresponds to jinshajiangite (IMA 81-061).