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Minerals and Mineral Names : International Mineralogical  
Association

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**New minerals recently approved  
by the  
Commission on New Minerals and Mineral Names  
International Mineralogical Association**

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 No. (any relationship to other minerals)  
Chemical Formula  
Crystal system, space group  
unit cell parameters  
Colour; lustre; diaphaneity  
Optical properties  
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**

J.A. Mandarino, Chairman Emeritus, and J.D. Grice, Chairman  
Commission on New Minerals and Mineral Names, International Mineralogical Association

## 1997 Proposals

**IMA No. 97-001**

Chemically related to paulkerrite  
(Bi,Pb)<sub>2</sub>Fe(O,OH)<sub>3</sub>PO<sub>4</sub>  
Monoclinic: C2/m  
a 12.278, b 3.815, c 6.899 Å, β 111.14°.  
Black to dark brown; vitreous to adamantine;  
opaque to translucent.  
Biaxial (-), α 2.06, β 2.15(calc), γ 2.19,  
2V(meas.) 70°.  
5.726 (54), 3.372 (77), 3.322 (37), 3.217 (46),  
3.011 (100), 2.863 (34), 2.750 (62).

a 7.116, c 4.815 Å.  
Creamy-white; earthy; earthy.  
Probably uniaxial (-), n 1.67.  
3.479 (40), 2.862 (55), 2.654 (100), 2.231 (15),  
2.129 (20), 1.920 (35), 1.644 (20).

**IMA No. 97-002**

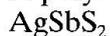
The boron-dominant analogue of gehlenite  
(melilite group)  
Ca<sub>2</sub>B<sub>2</sub>SiO<sub>7</sub>  
Tetragonal: P42<sub>1</sub>m

**IMA No. 97-003**

The Ti-dominant analogue of nenadkevichite  
NaK<sub>2</sub>(Ti,Nb)<sub>2</sub>Si<sub>4</sub>O<sub>12</sub>(O,OH)<sub>2</sub> · 2H<sub>2</sub>O  
Monoclinic: C2/m  
a 14.39, b 13.900, c 7.825 Å, β 117.6°.  
Colourless; vitreous; transparent to trans-  
lucent.  
Biaxial (+), α 1.667, β 1.677, γ 1.802,  
2V(meas.) 32°, 2V(calc.) 33°.  
6.94 (61), 6.39 (43B), 3.186 (100), 3.100 (96),  
2.600 (28), 2.586 (28), 2.489 (24).

## IMA No. 97-004

A polymorph of miargyrite



Cubic: Fm3m

a 5.650

Greyish black; metallic; opaque.

In reflected light: grey. R: (34.5%) 470 nm, (33.8%) 546 nm, (32.8%) 589 nm, (28.7%) 650 nm.

3.26 (9), 2.83 (10), 1.998 (8), 1.703 (6), 1.630 (5), 1.296 (2), 1.263 (3).

## IMA No. 97-005



Tetragonal: space group unknown

a 11.00, c 15.96 Å

Yellow; dull; translucent.

Uniaxial (-),  $\omega$  1.84,  $\varepsilon$  1.75.

5.58 (8), 4.95 (10), 4.40 (6), 3.33 (8), 3.03 (6), 2.91 (5).

## IMA No. 97-007

The Mn<sup>2+</sup>-dominant analogue of nordite-(Ce)



Orthorhombic: Pcca

a 14.449, b 5.187, c 19.849 Å

Colourless, pale-brownish, brown; vitreous; transparent.

Biaxial (-),  $\alpha$  1.623,  $\beta$  1.636,  $\gamma$  1.642, 2V(meas.) 60°, 2V(calc.) 68°.

7.22 (38), 4.215 (100), 3.326 (67), 2.965 (83), 2.875 (55), 2.597 (54), 2.443 (35).

## IMA No. 97-008

The Fe<sup>2+</sup>-dominant analogue of nordite-(Ce)



Orthorhombic: Pcca

a 14.460, b 5.187, c 19.848 Å

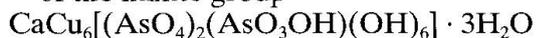
Colourless or light coffee-colour; vitreous; transparent.

Biaxial (-),  $\alpha$  1.623,  $\beta$  1.636,  $\gamma$  1.642, 2V(meas.) 60°, 2V(calc.) 68°.

7.22 (41), 4.216 (100), 3.325 (67), 2.964 (73), 2.879 (62), 2.595 (46), 2.444 (31).

## IMA No. 97-009

The calcium- and arsenate-dominant member of the mixite group



Hexagonal: P6<sub>3</sub>/m

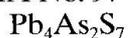
a 13.571, c 5.880 Å

Pale green; vitreous; transparent.

Uniaxial (+),  $\omega$  1.688,  $\varepsilon$  1.765.

11.64 (100), 4.431 (41), 3.387 (17), 3.254 (22), 2.9347 (42), 2.6932 (29), 2.5624 (30).

## IMA No. 97-010



Orthorhombic: Pba2 or Pbam

a 15.179, b 38.117, c 4.0428 Å

Silvery lead grey; metallic; opaque.

In reflected light: white with a greenish tint, distinct anisotropism (dark grey to greenish grey, weak bireflectance, weak pleochroism. R<sub>min.</sub> & R<sub>max.</sub>: (33.8, 34.0%) 470 nm, (31.8, 31.9%) 546 nm, (31.2, 31.3%) 589 nm, (30.4, 30.4%) 650 nm.

4.462 (40), 3.699 (37), 3.392 (100), 2.817 (45), 2.735 (31), 2.156 (25), 2.150 (22).

## IMA No. 97-012



Monoclinic: C2

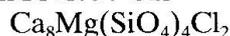
a 8.9252, b 6.1427, c 7.352 Å,  $\beta$  115.25°

Light brownish to brownish pink, orange-brown; vitreous; transparent.

Biaxial (sign unknown), n 1.76 parallel to fibre, n 1.70 perpendicular to fibre.

4.914 (58), 3.376 (65), 3.164 (100), 3.084 (61), 2.945 (72), 2.687 (53), 2.522 (84).

## IMA No. 97-013



Cubic: Fd $\bar{3}$

a 15.0850 Å

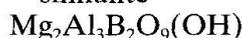
Orange brown to amber; vitreous; transparent.

Isotropic, n 1.676.

2.901 (40), 2.666 (100), 2.549 (30), 1.9637 (30), 1.8845 (30), 1.7774 (30), 1.5400 (50), 1.4585 (30).

## IMA No. 97-014

Chemically and structurally related to sinhalite



Monoclinic: P2<sub>1</sub>/c

a 7.49, b 4.33, c 9.85 Å,  $\beta$  110.7°

Colourless; vitreous; transparent.

Biaxial (-),  $\alpha$  1.691,  $\beta$  1.713,  $\gamma$  1.730, 2V(meas.) 80.0°, 2V(calc.) 82°.

3.21 (40), 2.61 (40), 2.14 (100), 2.102 (60), 1.625 (100), 1.607 (40), 1.399 (40).

## IMA No. 97-015

A Ca-dominant polymorph of zorite



Orthorhombic: C222

a 7.024, b 23.155, c 6.953 Å

Pale brown, brown, orange-yellow; vitreous; transparent to translucent.

Biaxial (+),  $\alpha$  1.599,  $\beta$  1.610,  $\gamma$  1.696, 2V(meas.) 38°, 2V(calc.) 41°.

11.564 (100), 6.932 (90), 5.258 (40), 4.446 (40),  
3.052 (75), 2.977 (70), 2.582 (40).

IMA No. 97-017

A monoclinic polymorph of cervantite  
 $\text{Sb}_2\text{O}_4$  ( $\text{Sb}^{3+}\text{Sb}^{5+}\text{O}_4$ ,  $\beta$ -phase)  
Monoclinic: C2/c  
a 12.061, b 4.836, c 5.383 Å,  $\beta$  104.60°  
Colourless; vitreous; transparent.  
Biaxial (sign unknown),  $\alpha'$  1.72,  $\gamma'$  2.10.  
3.244 (VS), 2.920 (M), 2.877 (S), 1.619 (M).

IMA No. 97-018

A member of the milarite group  
 $\text{K}(\text{Ca}, \text{Mn}, \text{Na})_2(\text{K}_{2-x}\square_x)_2\text{Zn}_3\text{Si}_{12}\text{O}_{30}$   
Hexagonal: P6/mcc  
a 10.505, c 14.185 Å  
Colourless, white; vitreous; transparent to  
translucent.  
Uniaxial (+),  $\omega$  1.561,  $\varepsilon$  1.562  
7.11 (35), 3.830 (100), 3.345 (60), 3.304 (40),  
2.940 (50), 2.795 (85), 2.627 (35).

IMA No. 97-019

The zinc-dominant member of the manasseite  
group  
 $\text{Zn}_4\text{Al}_2(\text{OH})_{12}(\text{CO}_3) \cdot 3\text{H}_2\text{O}$   
Hexagonal: P6<sub>3</sub>/mmc  
a 3.0725, c 15.1135 Å  
White; vitreous; transparent.  
Optical properties could not be measured.  
7.51 (vs), 3.794 (m), 2.511 (mw), 2.175 (mw),  
1.830 (mw), 1.542 (ms), 1.539 (ms).

IMA No. 97-021

$\text{HgBi}_2\text{S}_4$   
Monoclinic: C2/m  
a 14.164, b 4.053, c 13.967 Å,  $\beta$  118.28°  
Grey-black; metallic; opaque.  
In reflected light: creamy-white, distinct  
anisotropism, low birefractance, non-  
pleochroic.  $R_1$  &  $R_2$ : (35.7, 37.8%) 470 nm,  
(35.4, 37.5%) 546 nm, (34.9, 37.0%) 589 nm,  
(33.9, 35.8%) 650 nm.  
3.86 (m), 3.55 (m), 3.05 (S), 2.914 (mS),  
2.865 (mS), 2.644 (m), 1.913 (m), 1.805 (m).

IMA No. 97-022

The cadmium-dominant analogue of 97-023  
(Cd,Ca,Mn)KCu<sub>5</sub>(AsO<sub>4</sub>)<sub>4</sub>[As(OH)<sub>2</sub>O<sub>2</sub>](H<sub>2</sub>O)<sub>2</sub>  
Monoclinic: P2<sub>1</sub>/m  
a 9.8102, b 10.0424, c 9.9788 Å,  $\beta$  101.686°  
Electric blue; vitreous; transparent.  
Biaxial (-),  $\alpha$  1.720,  $\beta$  1.749,  $\gamma$  1.757,  
2V(meas.) 50°, 2V(calc.) 55°.  
9.64 (100), 4.46 (40), 3.145 (50), 3.048 (40),  
2.698 (40).

IMA No. 97-023

The calcium-dominant analogue of 97-022  
(Ca,Cd,Mn)KCu<sub>5</sub>(AsO<sub>4</sub>)<sub>4</sub>[As(OH)<sub>2</sub>O<sub>2</sub>]  
(H<sub>2</sub>O)<sub>2</sub>  
Monoclinic: P2<sub>1</sub>/m  
a 9.8102, b 10.0424, c 9.9788 Å,  $\beta$  101.686°  
Electric blue; vitreous; transparent.  
Biaxial (-),  $\alpha$  1.713,  $\beta$  1.743,  $\gamma$  1.749,  
2V(meas.) 50°, 2V(calc.) 48°.  
9.64 (100), 4.46 (40), 3.145 (50), 3.048 (40),  
2.698 (40).

IMA No. 97-024

The cadmium-dominant analogue of  
campigliaite  
 $\text{Cu}_4\text{Cd}(\text{SO}_4)_2(\text{OH})_6 \cdot 4\text{H}_2\text{O}$   
Monoclinic: P2<sub>1</sub>/m  
a 5.543, b 21.995, c 6.079 Å,  $\beta$  92.04°  
Bluish-green; vitreous; transparent.  
Biaxial (-),  $\alpha$  1.619,  $\beta$  1.642,  $\gamma$  1.661,  
2V(meas.) 66°, 2V(calc.) 83°.  
11.02 (90), 5.496 (100), 5.322 (25), 4.079 (50),  
3.437 (30), 3.243 (40), 2.470 (30).

IMA No. 97-025

$\text{UO}_2\text{CO}_3 \cdot \text{H}_2\text{O}$   
Hexagonal: space group unknown  
a 15.79, c 23.93 Å  
Canary yellow; silky; translucent.  
Uniaxial (+),  $\omega$  1.588,  $\varepsilon$  1.612.  
7.86 (47), 6.91 (55), 6.56 (77), 4.76 (40),  
4.34 (36), 3.39 (33), 3.056 (100).

IMA No. 97-026

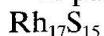
The boron-dominant analogue of vesuvianite  
 $\text{Ca}_{19}(\text{Al}, \text{Mg}, \text{Fe}, \text{Ti})_{13}(\text{B}, \text{Al}, \square)_5\text{Si}_{18}\text{O}_{68}$   
(O,OH,F)<sub>10</sub>  
Tetragonal: P4/nnc  
a 15.752, c 11.717 Å  
Dark green; vitreous; translucent.  
Uniaxial (+),  $\omega$  1.721,  $\varepsilon$  1.725.  
2.776 (100), 2.617 (61), 2.592 (43), 2.491 (61),  
2.121 (20), 1.660 (26), 1.640 (23).

IMA No. 97-027

The cobalt-dominant analogue of lothar  
meyerite  
 $\text{Ca}(\text{Co}, \text{Fe}, \text{Ni})_2(\text{AsO}_4)_2(\text{OH}, \text{H}_2\text{O})_2$   
Monoclinic: C2/m  
a 9.024, b 6.230, c 7.421 Å,  $\beta$  115.15°.  
Brown; vitreous; translucent.  
Biaxial (+),  $\alpha$  1.78,  $\beta$  1.79,  $\gamma$  1.85(calc.),  
2V(meas.) 48°.  
4.955 (38), 3.398 (85), 3.188 (28), 3.115 (33),  
2.972 (100), 2.709 (28), 2.545 (34).

## IMA No. 97-029

The rhodium- and sulfur-dominant analogue of palladseite



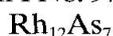
Cubic:  $\text{Pm}\bar{3}\text{m}$ ,  $\text{P}\bar{4}3\text{m}$  or  $\text{P}432$

$a$  10.024 Å

Colour unknown; metallic; opaque.

In reflected light: grey with slight bluish tint, isotropic.  $R$ : (38.6%) 480 nm, (39.0%) 540 nm, (39.1%) 580 nm, (38.8%) 660 nm. 3.33 (2), 3.17 (7), 3.02 (9), 2.68 (5), 2.24 (9), 1.931 (8), 1.774 (10).

## IMA No. 97-030



Hexagonal:  $\text{P}6_3/\text{m}$

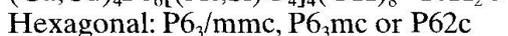
$a$  9.31,  $c$  3.64 Å

Colour unknown; metallic; opaque.

In reflected light: brownish-grey, weak anisotropism from grey to brownish-grey, weak bireflectance, nonpleochroic.  $R_{\text{min}}$  &  $R_{\text{max}}$ : (44.5, 47.8%) 480 nm, (44.7, 48.3%) 540 nm, (46.4, 49.2%) 580 nm, (48.6, 51.3%) 660 nm. 2.33 (4), 2.03 (2), 1.852 (9), 1.767 (6), 1.755 (10), 1.549 (8).

## IMA No. 97-032

The  $\text{Fe}^{2+}$ -dominant analogue of wallkilldellite



Hexagonal:  $\text{P}6_3/\text{mmc}$ ,  $\text{P}6_3/\text{mc}$  or  $\text{P}62\text{c}$

$a$  6.548,  $c$  23.21 Å

Brown-yellow; vitreous to resinous; translucent.

Uniaxial (-),  $\omega$  1.750,  $\varepsilon$  could not be determined.

11.6 (100), 5.670 (80), 3.275 (70), 2.850 (10), 2.760 (15), 2.547 (10), 1.641 (25).

## IMA No. 97-034



Monoclinic:  $\text{P}2_1/\text{n}$

$a$  6.629,  $b$  7.616,  $c$  7.379 Å,  $\beta$  91.79°

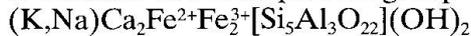
Dark green; adamantine; translucent.

Biaxial (sign unknown),  $n$  1.94, mineral reacts with liquids of  $n > 1.9$ .

3.385 (100), 3.315 (78), 2.939 (47), 2.839 (28), 2.381 (29), 2.331 (29), 1.652 (32), 1.621 (34).

## IMA No. 97-035

A member of the amphibole group



Monoclinic:  $\text{C}2/\text{m}$

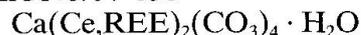
$a$  9.94,  $b$  18.08,  $c$  5.38 Å,  $\beta$  105.5°

Black; vitreous; transparent.

Biaxial (-),  $\alpha$  1.696,  $\beta$  not determined,  $\gamma$  1.715,  $2V(\text{meas.})$  45°.

8.44 (90), 3.405 (25), 3.285 (30), 3.145 (100), 2.823 (26), 2.722 (52), 2.606 (27), 2.579 (25).

## IMA No. 97-036



Triclinic:  $\text{P}\bar{1}$

$a$  6.397,  $b$  6.389,  $c$  12.383 Å,

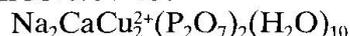
$\alpha$  96.58°,  $\beta$  100.85°,  $\gamma$  100.46°

Colourless to white; vitreous; translucent.

Biaxial (-),  $\alpha$  1.635,  $\beta$  1.725,  $\gamma$  1.750,  $2V(\text{calc.})$  53°.

5.901 (59), 5.049 (72), 4.695 (37), 4.468 (36), 4.006 (110), 3.899 (45), 3.125 (39), 3.0051 (448).

## IMA No. 97-037



Orthorhombic:  $\text{Fdd}2$

$a$  11.938,  $b$  32.854,  $c$  11.017 Å

Blue-green; vitreous; transparent.

Biaxial (+),  $\alpha$  1.508,  $\beta$  1.511,  $\gamma$  1.517,  $2V(\text{meas.})$  76.2°,  $2V(\text{calc.})$  71°.

8.23 (30), 6.52 (100), 4.05 (40), 3.255 (40), 2.924 (40), 2.807 (25), 2.614 (20).

## IMA No. 97-041

The zinc-dominant analogue of blödite



Monoclinic:  $\text{P}2_1/\text{a}$

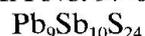
$a$  11.077,  $b$  8.249,  $c$  5.532 Å,  $\beta$  100.18°.

Colourless; vitreous; transparent.

Biaxial (-),  $\alpha$  1.507,  $\beta$  1.512,  $\gamma$  1.516 (all for synthetic material).

4.550 (58), 4.245 (32), 3.325 (25), 3.289 (100), 3.262 (35), 3.245 (25), 2.631 (27).

## IMA No. 97-042



Triclinic:  $\text{P}\bar{1}$

$a$  24.789,  $b$  8.26,  $c$  21.787 Å,  $\alpha$  90.53°,

$\beta$  99.58°,  $\gamma$  94.78°.

Black; metallic; opaque.

In reflected light: black, low anisotropism, low bireflectance, nonpleochroic.  $R_1$  &  $R_2$ : (38.95, 37.64%) 470 nm, (42.35, 38.26%) 546 nm, (41.67, 37.63%) 589 nm, (37.43, 36.53%) 650 nm.

3.47 (vs), 3.35 (ms), 3.24 (ms), 2.986 (s), 2.947 (s), 2.229 (ms).

## IMA No. 97-043



Orthorhombic:  $\text{Pnma}$

$a$  8.8213,  $b$  3.7725,  $c$  14.0053 Å.

Greyish black; metallic; opaque.

In reflected light: white, weak anisotropism, weak bireflectance, nonpleochroic.

$R_1$  &  $R_2$ : (33.9, 36.0%) 470 nm, (31.3, 32.9%) 546 nm, (30.0, 31.4%) 589 nm, (28.8, 29.9%) 650 nm.  
4.128 (100), 3.730 (30), 3.1085 (28), 2.8081 (51), 2.7421 (41), 2.6692 (51), 1.9335 (54).

## IMA No. 97-044

A member of the ilmenite group  
(Mg,Fe)SiO<sub>3</sub>  
Hexagonal (trigonal):  $R\bar{3}$   
a 4.78, c 13.6 Å.  
Colourless; vitreous; transparent.  
Uniaxial, no other data could be determined.  
3.509 (61), 2.616 (100), 2.366 (52), 2.097 (45), 1.755 (45), 1.636 (65), 1.366 (50).

## IMA No. 97-045

Na<sub>2</sub>LiAlF<sub>6</sub>  
Monoclinic: P2<sub>1</sub> or P2<sub>1</sub>/m  
a 7.5006, b 7.474, c 7.503 Å, β 90.847°.  
Pale buff-cream; somewhat greasy; transparent to translucent.  
Almost isotropic (biref. = 0.0009), biaxial  
n 1.359, 2V(meas.) up to 27°.  
4.33 (100), 2.65 (60), 2.25 (70), 2.18 (50), 2.158 (40), 1.877 (90).

## IMA No. 97-047

(Na,Y)(Y,REE)(HCO<sub>3</sub>)(OH)<sub>2</sub> · 5H<sub>2</sub>O  
Monoclinic: P2 (pseudo-tetragonal)  
a 4.566, b 13.018, c 4.566 Å, β 90.15°.  
White to yellow; vitreous; translucent to transparent.  
Uniaxial (-), ω 1.540, ε 1.40, 2V(meas.) 0–5°.  
12.97 (10), 6.52 (3), 4.57 (3), 4.32 (5), 3.223(3), 3.133 (5), 2.016 (4).

## IMA No. 97-048

The magnesium-dominant analogue of palenzonaite

Cubic: Ia $\bar{3}$ d

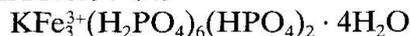
a 12.427 Å

Red; adamantine; transparent.

Isotropic, n 1.94.

3.108 (44), 2.779 (100), 2.652 (20), 2.535 (39), 1.723 (26), 1.662 (40).

## IMA No. 97-049



Monoclinic: C2/c

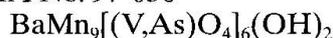
a 16.95, b 9.59, c 17.57 Å, β 90.85°.

White; vitreous; translucent.

Biaxial (-), α 1.557, β 1.598, γ 1.602,  
2V(meas.) 32°, 2V(calc.) 34°.

8.83 (10), 7.60 (4), 3.75 (10), 3.30 (4), 3.23 (5), 3.11 (4), 3.02 (9).

## IMA No. 97-050

Cubic: Pa $\bar{3}$ 

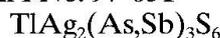
a 12.845 Å

Dark red; adamantine; transparent.

Isotropic, n &gt; 2.0.

3.01 (87), 2.790 (100), 2.608 (100), 2.332 (44), 2.134 (53), 1.510 (99), 1.0020 (35).

## IMA No. 97-051

Orthorhombic: Pnmb or P2<sub>1</sub>nb

a 12.479, b 15.522, c 5.719 Å.

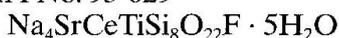
Dark grey; metallic; opaque.

In reflected light: pure white, extremely weak anisotropism, no birefractance, non-pleochroic.  $R_{\min.}$  &  $R_{\max.}$ : (31.43, 33.43%)  
470 nm, (28.31, 30.52%) 546 nm,  
(27.10, 29.11%) 589 nm, (25.57, 27.44%)  
650 nm.

3.655 (16), 3.363 (50), 3.290 (23), 3.210 (26), 3.118 (27), 2.822 (100), 2.540 (17), 2.070 (15).

## Proposals from previous years approved in 1997

## IMA No. 93-029



Monoclinic: P2/a (?)

a 23.88, b 14.40, c 7.238 Å, β 91.0°.

Yellow. pink-yellow or cream; vitreous and silky; translucent.

Biaxial (-), α 1.542, β 1.569, γ 1.571,  
2V(meas.) 28°, 2V(calc.) 30°.

12.36 (100), 3.232 (13), 3.190 (29), 3.108 (29), 3.087 (21), 3.058 (13), 2.708 (12).

## IMA No. 96-016

Orthorhombic: Pcmm, Pcm2<sub>1</sub>, or Pc2m

a 11.215, b 3.124, c 19.21 Å.

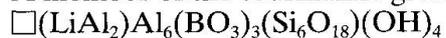
Yellowish-white; vitreous or pearly; translucent.

Biaxial (-), α 1.532, β ~ γ 1.562, 2V(meas.) ≤ 5°.

11.41 (29), 9.78 (46), 9.60 (38), 4.25 (20), 3.498 (100).

## IMA No. 96-018

A member of the tourmaline group



Hexagonal (trigonal): R3m

a 15.770, c 7.085 Å.

Pink; vitreous; translucent.

Uniaxial (-),  $\omega$  1.645,  $\varepsilon$  1.624.

4.181 (58), 3.950 (100), 3.434 (52), 2.924 (56),  
2.552 (93), 1.898 (72).

## IMA No. 96-061

An hexagonal or trigonal dimorph of scorodite



Hexagonal: P-c- (extinction symbol)

a 8.9327, c 9.9391 Å.

White to light yellow-brown; vitreous;  
translucent.

Uniaxial (sign unknown),  $\omega$  and  $\varepsilon > 1.72$ .

4.973 (61), 4.184 (44), 4.076 (100), 3.053 (67),  
2.806 (68), 2.661 (59), 2.520 (54), 2.2891 (44).