

**Crystal Data:** Orthorhombic. *Point Group:*  $2/m\ 2/m\ 2/m$ . Dipyramidal crystals, to 0.2 mm, epitaxially overgrown by scorodite; typically in crusts.

**Physical Properties:** Hardness = 3.5–4 VHN = 571–743, 631 average (25 g load). D(meas.) = n.d. D(calc.) = 3.876(3)

**Optical Properties:** Semitransparent. *Color:* Pale green to yellow-green; colorless in transmitted light. *Streak:* White. *Luster:* Vitreous.

*Optical Class:* Biaxial (+). *Orientation:*  $X = a$ ;  $Y = c$ ;  $Z = b$ .  $n = 1.65$   $2V(\text{meas.}) = 55^\circ - 76^\circ$

**Cell Data:** *Space Group:*  $Pbca$ .  $a = 10.446(6)$   $b = 9.085(4)$   $c = 10.345(6)$   $Z = 8$

**X-ray Powder Pattern:** Mangabeira deposit, Brazil.

4.53 (100), 5.70 (70), 3.874 (60), 3.250 (60), 4.163 (50), 3.110 (50), 5.16 (40)

**Chemistry:**

	(1)	(2)
As <sub>2</sub> O <sub>5</sub>	40.10	39.66
In <sub>2</sub> O <sub>3</sub>	45.80	47.91
Al <sub>2</sub> O <sub>3</sub>	0.21	
Fe <sub>2</sub> O <sub>3</sub>	1.11	
H <sub>2</sub> O	[12.78]	12.43
Total	[100.00]	100.00

(1) Mangabeira deposit, Brazil; by electron microprobe, average of 12 determinations on several crystals, H<sub>2</sub>O by difference; corresponds to (In<sub>0.94</sub>Fe<sub>0.04</sub>Al<sub>0.01</sub>)<sub>Σ=0.99</sub>As<sub>1.00</sub>O<sub>4</sub>•2.02H<sub>2</sub>O.

(2) InAsO<sub>4</sub>•2H<sub>2</sub>O.

**Mineral Group:** Variscite group.

**Occurrence:** A rare secondary mineral replacing arsenopyrite in quartz-topaz greisen veins in granite.

**Association:** Scorodite, arsenopyrite, indium-rich sphalerite, topaz, cassiterite.

**Distribution:** From the Mangabeira tin deposit, near Passa e Fica, Goiás, Brazil.

**Name:** For the Yanomami Indians, residents of the Amazon basin.

**Type Material:** Institute of Geosciences, University of Brasilia, Brasilia, Brazil; National School of Mines, Paris, France.

**References:** (1) Botelho, N.F., G. Roger, F. d'Yvoire, Y. Moëlo, and M. Volfinger (1994) Yanomamite, InAsO<sub>4</sub>•2H<sub>2</sub>O, a new indium mineral from topaz-bearing greisen in the Goiás tin province, Brazil. *Eur. J. Mineral.*, 6, 245–254. (2) (1995) *Amer. Mineral.*, 80, 186 (abs. ref. 1).