

**Crystal Data:** Orthorhombic. *Point Group:*  $mm2$ . As parallel to radial aggregates of bladed crystals, flattened (001) and elongated along [100] to 0.8 mm; as overgrowths on colloform arsenic.

**Physical Properties:** *Cleavage:* Perfect on {001}. *Tenacity:* Brittle, sectile. *Fracture:* n.d. Hardness = 2-2.5 VHN = 66-91 (25 g load). D(meas.) = 5.88(5) D(calc.) = 6.01

**Optical Properties:** Opaque. *Color:* Lead-gray; white with a slight greenish blue tint in reflected light. *Streak:* Black. *Luster:* Metallic.

*Optical Class:* *Anisotropy:* Strong, dark brown to greenish gray. *Birefractance:* Creamy (parallel to the elongation) to brown, gray, green (perpendicular to the elongation).

R<sub>1</sub>-R<sub>2</sub>: (470) 49.0-44.0 (33.6-29.3)<sub>oil</sub>, (546) 47.0-42.1 (31.5-28.0)<sub>oil</sub>, (589) 44.8-39.9 (29.7-26.9)<sub>oil</sub>, (650) 44.9-40.3 (29.2-26.0)<sub>oil</sub>

**Cell Data:** *Space Group:*  $Pmn2_1$  or  $P2_1nm$ .  $a = 3.3633(2)$   $b = 10.196(2)$   $c = 10.314(2)$   $Z = 18$

**X-ray Powder Pattern:** Mukuno mine, Yamaga-cho, Oita Prefecture, Kyushu, Japan. 5.17 (100), 3.259 (58), 2.840 (27), 1.794 (26), 4.60 (24), 2.299 (23), 2.580 (22)

<b>Chemistry:</b>	(1)
As	91.89
Sb	7.25
<u>S</u>	<u>0.48</u>
Total	99.62

(1) Mukuno mine, Yamaga-cho, Oita Prefecture, Kyushu, Japan; electron microprobe analysis; corresponds to As<sub>0.94</sub>Sb<sub>0.05</sub>S<sub>0.01</sub>.

**Polymorphism & Series:** Polymorph of arsenic (trigonal) and arsenolamprite (orthorhombic).

**Occurrence:** In a hydrothermal Sb-As-Ag-Au-bearing quartz vein (Japan).

**Association:** Quartz, stibnite.

**Distribution:** At the Mukuno mine, Yamaga-cho, Oita Prefecture, Kyushu, Japan [TL].

**Name:** The prefix, *par*, alludes to the polymorphic relationship with *arsenolamprite*.

**Type Material:** National Science Museum, Tokyo, Japan (NSM M-28015).

**References:** (1) Matsubara, S., R. Miyawaki, M. Shimizu, and T. Yamanaka (2001) Pararsenolamprite, a new polymorph of native As, from the Mukuno mine, Oita Prefecture, Japan. *Mineral. Mag.*, 65(6), 807-812. (2) (2002) *Amer. Mineral.*, 87, 997-998 (abs. ref. 1).