

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).

R₁-R₂: (470) 49.0-44.0 (33.6-29.3)_{oil}, (546) 47.0-42.1 (31.5-28.0)_{oil}, (589) 44.8-39.9 (29.7-26.9)_{oil}, (650) 44.9-40.3 (29.2-26.0)_{oil}

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)

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| Chemistry: | (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_{0.94}Sb_{0.05}S_{0.01}.

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).