Paarite $Cu_{1.7}Pb_{1.7}Bi_{6.3}S_{12}$

Crystal Data: Orthorhombic. *Point Group:* 2/*m* 2/*m* 2/*m.* As elongate crystals to 0.2 mm.

Physical Properties: *Cleavage:* Perfect on {0*kl*}. *Fracture*: Uneven. *Tenacity*: Brittle. Hardness = 3.3-3.6 VHN = 204 (50 g load). D(meas.) = n.d. D(calc.) = 6.948

Optical Properties: Opaque. *Color:* Light gray, white with a creamy tint in reflected light. *Streak:* Grayish black. *Luster:* Metallic.
Optical Class: n.d. *Pleochroism*: Weak, white to creamy white.
R_1-R_2: (470) 38.27-48.23, (546) 37.34-48.56, (589) 36.75-47.90, (650) 36.00-46.53

Cell Data: Space Group: *Pmcn.* *a* = 4.007(1) *b* = 55.998(8) *c* = 11.512(2) Z = 5

X-ray Powder Pattern: Calculated pattern.
3.630 (100), 2.836 (92.6), 3.136 (92.4), 3.551 (84.7), 3.155 (57.2), 4.01 (56.3), 3.585 (55.3)

Chemistry:

	(1)
Cu	4.90
Fe	0.02
Pb	16.45
Bi	60.74
S	17.84
Total	99.95

(1) Felbertal scheelite deposit, Hohe Tauern, Salzburg province, Austria; average of 12 electron microprobe analyses; corresponds to $Cu_{1.67}Fe_{0.01}Pb_{1.72}Bi_{6.30}S_{12.06}$.

Occurrence: In quartz veins cutting a metamorphosed (upper greenschist to lower amphibolite facies) scheelite deposit.

Association: Gladite-krupkaite, the gustavite-lillianite solid solution, pavonite, makovickyite, cosalite, cannizzarite, tetradymite, native Bi, chalcopyrite, pyrite.

Distribution: From the Felbertal scheelite deposit, Hohe Tauern, about 10 km south of Mittersill, Salzburg province, Austria.

Name: Honors Werner Hermann Paar (b. 1942), Professor of Mineralogy, University of Salzburg, for his contributions to ore mineralogy.

Type Material: Geological Museum, University of Copenhagen, Denmark and in the reference collection, Mineralogical Institute, University of Salzburg, Austria.

References: (1) Topa, D., E. Makovicky, and T. Balić-Žunić (2005) Mineralogical data on salzburgite and paarite, two new members of the bismuthinite-aikinite series. Can. Mineral., 43, 909-917. (2) (2006) Amer. Mineral., 91, 218 (abs. ref. 1).