

**Crystal Data:** Monoclinic. *Point Group:* 2. As crystals to ~300 μm and as grains.

**Physical Properties:** *Cleavage:* None. *Fracture:* Conchoidal. *Tenacity:* Brittle. Hardness = 4 VHN = 202-221, 215 average (25 g load). D(meas.) = n.d. D(calc.) = 5.26

**Optical Properties:** Opaque. *Color:* Gray; grayish white in reflected light, with red internal reflections on thin edges or at grain boundaries. *Streak:* Black. *Luster:* Metallic.  
*Optical Class:* n.d. *Birefractance:* Moderate. *Anisotropism:* Distinct, dark gray to creamy tints.  
*R<sub>1</sub>-R<sub>2</sub>:* (400) 39.0-33.6, (420) 38.8-32.3, (440) 38.9-32.6, (460) 39.1-32.6, (470) 39.0-32.6, (480) 39.0-32.4, (500) 39.1-32.6, (520) 38.9-32.4, (540) 38.6-32.2, (546) 38.5-32.1, (560) 38.3-31.8, (580) 38.1-31.8, (589) 37.9-31.5, (600) 37.8-31.4, (620) 37.4-31.2, (640) 37.0-30.9, (650) 36.7-30.7, (660) 36.3-30.6, (680) 35.7-30.0, (700) 35.5-29.7

**Cell Data:** Space Group: *P*2<sub>1</sub>. *a* = 8.475(3) *b* = 7.917(3) *c* = 20.039(8) β = 102.070(6)° *Z* = 2

**X-ray Powder Pattern:** Calculated pattern.

3.512 (100), 2.776 (71), 2.773 (70), 3.880 (59), 3.488 (47), 2.968 (47), 3.493 (46)

Chemistry:	(1)	(2)
Pb	39.26	39.81
Sb	17.47	17.54
As	17.97	18.00
S	24.60	24.65
Total	99.30	100.00

(1) Uchucchacua deposit, Oyon district, Catajumbo, Lima Department, Peru; average of 11 electron microprobe analyses; corresponds to Pb<sub>7.94</sub>Sb<sub>6.01</sub>As<sub>10.05</sub>S<sub>32.15</sub>. (2) Pb<sub>8</sub>As<sub>10</sub>Sb<sub>6</sub>S<sub>32</sub>.

**Polymorphism & Series:** Sartorite homologous series, between guettardite and twinnite on the one hand, and hendekasartorite on the other hand.

**Occurrence:** As fissure-infill and replacement of limestone in a succession of antiforms and synforms in a Ag-Mn-Pb-Zn vein skarn deposit, hosted by limestone and surrounded by andesitic and dacitic volcanic intrusions.

**Association:** Orpiment, stibnite, quartz, tennantite/tetrahedrite, manganocubite, Pb-Ag-Mn-Sb-As-S sulfosalts including menchettiite, calcite.

**Distribution:** From the Socorro section, Uchucchacua deposit, Oyon district, Catajumbo, Lima Department, Peru.

**Name:** Honors Dr. Jaroslav Hyršl, Czech mineralogist and expert on Peruvian minerals and specifically species of the Uchucchacua deposit.

**Type Material:** Natural History Museum, Vienna, Austria (O 201).

**References:** (1) Keutsch, F.N., D. Topa, and E. Makovicky (2018) Hyršlite, Pb<sub>8</sub>As<sub>10</sub>Sb<sub>6</sub>S<sub>32</sub>, a new *N* = 3;3 member of the sartorite homologous series from the Uchucchacua polymetallic deposit, Peru. *Eur. J. Mineral.*, 30(6), 1155-1162. (2) (2020) *Amer. Mineral.*, 105(7), 973 (abs. ref. 1).