

Crystal Data: Hexagonal. *Point Group:* $\bar{3}$. As anhedral to semi-prismatic crystals to 200 μm .

Physical Properties: *Cleavage:* None. *Tenacity:* Brittle. *Fracture:* Irregular. Hardness = 6-7
D(meas.) = n.d. D(calc.) = 4.83

Optical Properties: Opaque. *Color:* Black to steel gray; gray with a weak brownish tint in reflected light, no internal reflections. *Streak:* n.d. *Luster:* Submetallic to dull.

Optical Class: Weak anisotropy, bireflectance, and pleochroism.

R₁-R₂: (470) 15.87-16.83 (4.53-5.29)_{oil}, (546) 15.99-17.33 (4.64-5.58)_{oil}, (589) 15.93-17.41 (4.62-5.59)_{oil}, (650) 16.08-17.75 (4.72-5.85)_{oil}

Cell Data: *Space Group:* $P\bar{3}$. $a = 7.601(1)$ $c = 9.219(1)$ $Z = 1$

X-ray Powder Pattern: Wigwam Pb-Zn deposit, British Columbia, Canada.

2.190 (100), 2.934 (89), 3.103 (78), 2.785 (67), 1.438 (63), 1.934 (53), 2.403 (50)

Chemistry:	(1)
Mg ²⁺	0.06
Al ³⁺	0.03
Si ⁴⁺	4.21
Ti ⁴⁺	4.55
V ³⁺	43.42
Cr ³⁺	1.30
Fe ³⁺	1.99
Ba ²⁺	10.45
<u>O²⁻</u>	<u>31.03</u>
Total	97.04

(1) Wigwam Pb-Zn deposit, British Columbia, Canada; average electron microprobe analysis, valences from structure analysis, O²⁻ from stoichiometry, amount of oxygen and total are likely underestimated; corresponds to Ba_{1.05}(Ti_{1.31}V⁴⁺_{0.69}) $\Sigma=2.00$ (V³⁺_{11.06}Fe³⁺_{0.49}Cr_{0.34}) $\Sigma=11.89$ Si_{2.06}O₂₇.

Mineral Group: Nesosubsilicate.

Occurrence: A metamorphic mineral formed under greenschist-facies P-T conditions.

Association: Quartz, celsian, apatite, sphalerite, pyrrhotite, galena, pyrite.

Distribution: From the Wigwam Pb-Zn deposit, Akolkolex River area, southeast of Revelstoke, British Columbia, Canada.

Name: Honors Tibor *Zoltai* (1925-2003) for contributions to mineralogical research and education.

Type Material: n.d.

References: (1) Bartholomew, P.R., F. Mancini, C. Cahill, G.E. Harlow, and H.-J. Bernhardt (2005) Zoltaiite, a new barium-vanadium nesosubsilicate mineral from British Columbia: Description and crystal structure. *Amer. Mineral.*, 90, 1655-1660.