

Crystal Data: Triclinic. *Point Group:* $\bar{1}$. As massive vein fillings to 25 μm .

Physical Properties: *Cleavage:* None. *Tenacity:* Brittle. *Fracture:* Uneven. Hardness = ~ 5
D(meas.) = n.d. D(calc.) = 3.897

Optical Properties: Transparent. *Color:* Brown; yellowish brown in transmitted light.

Streak: White. *Luster:* Vitreous.

Optical Class: Biaxial (-). $n \geq 1.89$ $2V(\text{meas.}) = 96.9(5)^\circ$ Non-pleochroic.

Orientation:

	<i>a</i>	<i>b</i>	<i>c</i>
X	12.5°	83.2°	103.4°
Y	100.1°	20.0°	69.8°
Z	97.4°	108.7°	24.6°

Cell Data: *Space Group:* $A\bar{1}$. $a = 7.031(2)$ $b = 8.692(2)$ $c = 6.561(2)$ $\alpha = 89.712(11)^\circ$
 $\beta = 113.830(13)^\circ$ $\gamma = 90.352(12)^\circ$ $Z = 4$

X-ray Powder Pattern: Calculated pattern.

3.226 (100), 3.001 (98), 2.609 (89), 4.939 (65), 1.704 (31), 2.063 (29), 1.645 (23)

Chemistry:	(1)		(1)
Nb ₂ O ₅	4.68	Fe ₂ O ₃	0.99
Ta ₂ O ₅	24.20	CaO	23.97
SiO ₂	25.88	Na ₂ O	0.20
TiO ₂	10.37	F ₂	0.39
VO ₂	0.04	H ₂ O	[0.03]
ZrO ₂	0.05	<u>- O = F₂</u>	<u>0.16</u>
SnO ₂	0.35	Total	98.80
Al ₂ O ₃	7.82		

(1) Piława Górna, Lower Silesia, SW Poland; average of 10 electron microprobe analyses supplemented by Raman spectroscopy, H₂O calculated so that (O+F+OH) = 5 pfu; corresponds to (Ca_{0.98}Na_{0.02}) $\Sigma=1.00$ (Al_{0.34}Fe³⁺_{0.03}Ti_{0.30}Sn_{0.01}Ta_{0.25}Nb_{0.08}) $\Sigma=1.01$ (Si_{0.99}Al_{0.01}) $\Sigma=1.00$ [O_{4.94}F_{0.05}(OH)_{0.01}] $\Sigma=5.00$.

Mineral Group: Titanite group.

Occurrence: Filling fractures in weakly fractionated parts of anatectic pegmatites in an amphibolite migmatite.

Association: (Al,Ta,Nb)- and (Al,F)-bearing titanites, a Bi-rich pyrochlore-supergroup mineral, K-mica, zircon, polycrase-(Y), euxenite-(Y), feldspar.

Distribution: From the quarry of the Kompania Górnicza (formerly Dolnośląskie Surowce Skalne S.A. Company), Piława Górna, Lower Silesia, SW Poland.

Name: Honors the Polish mineralogist, Professor Witold Żabiński (1929-2007).

Type Material: Mineralogical Museum, University of Wrocław, Wrocław, Poland (MMWr IV7675).

References: (1) Pieczka, A., F.C. Hawthorne, Chi Ma, G.R. Rossman, E. Szełęg, A. Szuszkiewicz, K. Turniak, K. Nejbart, S.S. Ilnicki, P. Buffat, and B. Rutkowski (2017) Żabińskiite, ideally Ca(Al_{0.5}Ta_{0.5})(SiO₄)O, a new mineral of the titanite group from the Piława Górna pegmatite, the Góry Sowie Block, southwestern Poland. *Mineral. Mag.*, 81(3), 591-610. (2) (2018) *Amer. Mineral.*, 103, 336-337 (abs. ref. 1).