

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

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

**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.

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

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

(1) Piława Góra, Lower Silesia, SW Poland; average of 10 electron microprobe analyses supplemented by Raman spectroscopy, H<sub>2</sub>O calculated so that (O+F+OH) = 5 pfu; corresponds to (Ca<sub>0.98</sub>Na<sub>0.02</sub>)<sub>Σ=1.00</sub>(Al<sub>0.34</sub>Fe<sup>3+</sup><sub>0.03</sub>Ti<sub>0.30</sub>Sn<sub>0.01</sub>Ta<sub>0.25</sub>Nb<sub>0.08</sub>)<sub>Σ=1.01</sub>(Si<sub>0.99</sub>Al<sub>0.01</sub>)<sub>Σ=1.00</sub>[O<sub>4.94</sub>F<sub>0.05</sub>(OH)<sub>0.01</sub>]<sub>Σ=5.00</sub>.

**Mineral Group:** Titanite group.

**Occurrence:** Filling fractures in weakly fractionated parts of anatetic 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 Górnica (formerly Dolnośląskie Surowce Skalne S.A. Company), Piława Góra, 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. Szelęg, A. Szuszkiewicz, K. Turniak, K. Nejbert, S.S. Ilnicki, P. Buffat, and B. Rutkowski (2017) Żabińskiite, ideally Ca(Al<sub>0.5</sub>Ta<sub>0.5</sub>)(SiO<sub>4</sub>)O, a new mineral of the titanite group from the Piława Góra pegmatite, the Góry Sowie Block, southwestern Poland. *Mineral. Mag.*, 81(3), 591-610. (2) (2018) Amer. *Mineral.*, 103, 336-337 (abs. ref. 1).