

**Crystal Data:** Monoclinic. *Point Group:*  $2/m$ . As flattened fibers or laths; in spheroidal aggregates, to 5 mm; typically as felted or matted fibrous aggregates. *Twinning:* On {100}.

**Physical Properties:** *Tenacity:* Inflexible. Hardness = 3–3.5 D(meas.) = 2.62 D(calc.) = 2.738

**Optical Properties:** Translucent. *Color:* White to buff, straw-yellow; colorless in transmitted light. *Streak:* White. *Luster:* Silky to dull.

*Optical Class:* Biaxial (-). *Orientation:* Parallel extinction;  $X \parallel$  elongation;  $Z \perp$  flattening. *Dispersion:*  $r > v$ .  $\alpha = 1.575$   $\beta = 1.646$   $\gamma = 1.650$   $2V(\text{meas.}) = 25^\circ$

**Cell Data:** *Space Group:*  $P2_1/a$ .  $a = 12.577(2)$   $b = 10.393(2)$   $c = 3.139(1)$   
 $\beta = 95.88(2)^\circ$   $Z = 8$

**X-ray Powder Pattern:** Taiga deposit, Sakha, Russia.  
6.27 (100), 2.664 (70), 2.089 (65), 2.207 (58), 2.441 (50), 3.04 (41), 2.548 (37)

Chemistry:	(1)	(2)	(1)	(2)
B <sub>2</sub> O <sub>3</sub>	40.17	41.38	H <sub>2</sub> O	12.00
R <sub>2</sub> O <sub>3</sub>	0.29		insol.	0.10
MgO	47.12	47.91	Total	99.68
				100.00

(1) Schmidtmannshall, Germany. (2) MgBO<sub>2</sub>(OH).

**Polymorphism & Series:** Polytypes -O and -M are known; forms a series with sussexite.

**Occurrence:** Uncommon in marine evaporite deposits; in boron-bearing contact metasomatized dolomitic marbles and skarns, and metamorphosed banded iron formation.

**Association:** Ludwigite, hulsite, magnetite, fluorborite, vonsenite, sinhalite, nordenskiöldine, warwickite, brucite, aragonite, brugnatellite, clinohumite, dolomite (skarns); boracite, sylvite, halite, kainite (marine salt deposits).

**Distribution:** Numerous localities worldwide, typically in small amounts. In Romania, from Băița (Rézbánya) and at Ocna de Fier (Morávicza; Vaskő). In Germany, in the Stassfurt salt district, Saxony-Anhalt; from Pöhla, Erzgebirge, and at Vienenburg, north of Bad Harzburg. At Broadford, Isle of Skye, Inverness-shire, Scotland. In the Brosso mine, northwest of Ivrea, Torino, Italy. From Norberg, Västmanland, Sweden. In the USA, from Bolinas Bay, Marin Co., California; near Blind Mountain, west of Pinoche, Lincoln Co., and east of the Ludwig gypsum mine, Lyon Co., Nevada. In Canada, from the Potash Corporation of America mine, Penobscquis evaporite deposit, and the Salt Springs evaporite deposit, near Sussex, New Brunswick; near Bancroft, Ontario, and elsewhere. In the St. Dizier tin–boron deposit, 20 km northwest of Zeehan, Tasmania, Australia. From the Hol Kol Au–Cu mine, about 75 km southeast of Pyongyang, Suan Co., North Korea. At Irazuyama, Ehime Prefecture, Japan. In the Taiga boron–iron deposit, and the Tayozhnoye iron deposit, 550 km south of Yakutsk, Sakha, Russia. In economic amounts in the Inder boron deposit, Kazakhstan. Mined for boron at Fengchen and elsewhere in Liaoning Province, China. Millions of tons are in the Gole Gohar iron deposit, Bafq district, Iran.

**Name:** Honors István Ádám Rudolf Szaibély (1777–1855), Rézbánya, Hungary [now Băița, Romania], mine surveyor, who collected the first specimens.

**Type Material:** Loránd Eötvös University, Budapest, Hungary, E555.

**References:** (1) Palache, C., H. Berman, and C. Frondel (1951) Dana's system of mineralogy, (7th edition), v. II, 375–377. (2) Takéuchi, Y. and Y. Kudoh (1975) Szaibelyite, Mg<sub>2</sub>(OH)[B<sub>2</sub>O<sub>4</sub>(OH)]: Crystal structure, pseudosymmetry, and polymorphism. *Amer. Mineral.*, 60, 273–279. (3) Lisitsyn, A.E., O.M. Dara, T.V. Tkacheva, V.V. Rudnev, A.L. Gaft, and N.V. Dobrovol'skaya (1985) New data on ludwigite and szaibelyite of the Taiga skarn-magnetite deposit (southern Yakutia [Sakha]). *Zap. Vses. Mineral. Obshch.*, 114, 62–73 (in Russian).

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