

Crystal Data: Hexagonal. *Point Group:* 3m. As subhedral grains and euhedral prismatic crystals to 1 cm, striated parallel to the *c* axis.

Physical Properties: *Fracture:* Conchoidal. *Tenacity:* Brittle. *Hardness:* = 7.5
D(meas.) = n.d. D(calc.) = 3.115 Non-fluorescent.

Optical Properties: Transparent. *Color:* Brown. *Streak:* Gray. *Luster:* Vitreous.
Optical Class: Uniaxial (-). $\omega = 1.660(5)$ $\varepsilon = 1.640(5)$ *Pleochroism:* *O* = greenish brown;
E = pale yellow. *Absorption:* *O* > *E*.

Cell Data: *Space Group:* R3m. *a* = 15.952(1) *c* = 7.2222(5) *Z* = 3

X-ray Powder Pattern: Facciatoia quarry, San Piero in Campo (LI), Elba, Tuscany, Italy.
2.584 (100), 2.973 (88), 3.497 (57), 2.047 (53), 3.994 (51), 4.237 (49), 1.925 (37)

Chemistry:	(1)		(1)
SiO ₂	35.45	Na ₂ O	1.10
TiO ₂	1.40	F	0.11
B ₂ O ₃	[10.45]	H ₂ O	[3.30]
Al ₂ O ₃	27.30	-O = F	0.04
V ₂ O ₃	0.12	Fe ₂ O ₃	[2.52]
MgO	11.19	<u>FeO</u>	<u>[3.41]</u>
CaO	3.43	Total	99.63

(1) Facciatoia quarry, San Piero in Campo (LI), Elba, Tuscany, Italy; average electron microprobe analysis, total Fe = 5.68 apportioned from Mössbauer spectroscopic analysis, H₂O and B₂O₃ calculated; corresponds to $X(\text{Ca}_{0.61}\text{Na}_{0.35}\square_{0.04})_{\Sigma=1.00}Y(\text{Mg}_{2.35}\text{Fe}^{2+}_{0.47}\text{Ti}_{0.18})_{\Sigma=3.00}Z(\text{Al}_{5.25}\text{Fe}^{3+}_{0.32}\text{V}^{3+}_{0.02}\text{Mg}_{0.42})_{\Sigma=6.00}T[(\text{Si}_{5.90}\text{Al}_{0.10})_{\Sigma=6.00}\text{O}_{18}](\text{BO}_3)_3^V(\text{OH})_3^W[(\text{OH})_{0.55}\text{F}_{0.05}\text{O}_{0.40}]_{\Sigma=1.00}$.

Polymorphism & Series: Solid-solution with magnesio-lucchesiite supported by experimental data.

Mineral Group: Tourmaline group, calcic group.

Occurrence: At the center of a 2-3 cm wide vein formed by the reaction between B-rich fluids, released during crystallization of LCT pegmatites, and the surrounding meta-serpentinites altered by contact metamorphism in the aureole of a monzogranitic pluton.

Association: Magnesio-lucchesiite, magnesite, dolomite.

Distribution: From Facciatoia quarry, San Piero in Campo (LI), Elba Island, Tuscany, Italy [TL].

Name: The hydroxy equivalent to fluor-uvite.

Type Material: Natural History Museum, Milan (M38848) and the Natural History Museum, University of Pisa, Italy (19911).

References: (1) Bosi, F., C. Biagioni, F. Pezzotta, H. Skogby, U. Hålenius, J. Cempírek, F.C. Hawthorne, A.J. Lussier, Y.A. Abdu, M.C. Day, M. Fayek, C.M. Clark, J.D. Grice, and D.J. Henry (2022) Uvite, CaMg₃(Al₅Mg)(Si₆O₁₈)(BO₃)₃(OH)₃(OH), a new, but long-anticipated mineral species of the tourmaline supergroup from San Piero in Campo, Elba Island, Italy. *Mineral. Mag.*, 86(5), 767-776. (2) Henry, D.J., M. Novák, F.C. Hawthorne, A. Ertl, B.L. Dutrow, P. Uher, and F. Pezzotta (2011) Nomenclature of the tourmaline-supergroup minerals. *Amer. Mineral.*, 96, 895-913. (3) Kunitz, W. (1929) BeitrÄage zur Kenntnis der magmatischen Assoziationen. I. Die Mischungsriehen in der Turmalingruppe und die genetischen Beziehungen zwischen Turmalinen und Glimmern [hypothetical end member]. *Chem. Erde*, 4, 208-251, esp. 221 (in German). (4) Dunn, P.J., D. Appleman, J.A. Nelen, and J. Norberg (1977) Uvite, a new (old) common member of the tourmaline group and its implications for collectors. *Mineral. Record*, 8, 100-108.