

Crystal Data: Orthorhombic. *Point Group:* 2/m 2/m 2/m or *mm*2. Rare crystals, to 0.1 mm, are tabular, with {001}, {010}, {110}, {120}, in aggregates. *Twinning:* Commonly observable, on an unknown law.

Physical Properties: *Fracture:* Uneven. Hardness = n.d. VHN = 457(30) (100 g load). D(meas.) = 3.22–3.27 D(calc.) = 3.25

Optical Properties: Semitransparent. *Color:* Dark red to nearly black. *Streak:* Brown. *Luster:* Vitreous to greasy. *Optical Class:* Biaxial (+). *Pleochroism:* X = light brown to red; Y = brownish yellow to brown; Z = yellow to reddish yellow. *Orientation:* X = c; Y = a; Z = b. *Dispersion:* r > v, strong. α = 1.690–1.704 β = 1.702–1.716 γ = 1.712–1.726 2V(meas.) = 54°–60°

Cell Data: *Space Group:* *Pbnm* or *Pbn*2₁. a = 4.7468(7) b = 10.101(2) c = 5.8992(7) Z = 4

X-ray Powder Pattern: Radionovskoye pegmatite field, Ukraine. 2.48 (10), 4.30 (9), 2.93(8), 3.85 (6), 3.45 (6), 2.42(6), 2.23 (6)

Chemistry:

	(1)	(2)
P ₂ O ₅	51.90	51.00
Fe ₂ O ₃	16.87	17.39
Mn ₂ O ₃	9.84	14.83
MgO	15.78	12.36
CaO	0.00	0.08
Li ₂ O	5.45	5.35
Total	99.84	101.01

(1) Radionovskoye pegmatite field, Ukraine; corresponds to Li_{1.00}(Mg_{1.09}Fe_{0.57}³⁺Mn_{0.34}³⁺)_{Σ=2.00}(P_{1.01}O₄)₂. (2) Do.; corresponds to Li_{0.98}(Mg_{0.85}Fe_{0.60}³⁺Mn_{0.52}³⁺)_{Σ=1.97}(P_{1.00}O₄)₂.

Occurrence: At the contact of a rare-earth-bearing granite pegmatite and phlogopitized ultramafic tremolite rock.

Association: Muscovite, quartz, oligoclase, albite, phlogopite, tourmaline, apatite.

Distribution: In the Radionovskoye pegmatite field, middle Berda River, Zaporozhe district, Ukraine.

Name: For the city of Simferopol, Crimea, Ukraine, where the mineral was studied.

Type Material: n.d.

References: (1) Yakubovich, O.V., V.V. Bairakov, and M.A. Simonov (1989) Crystal structure of simferite Li(Mg, Fe³⁺, Mn³⁺)₂[PO₄]₂. Doklady Acad. Nauk SSSR, 307, 1119–1122 (in Russian). (2) (1993) Amer. Mineral., 78, 452 (abs. ref. 1). (3) Pekov, I.V. (1998) Minerals first discovered on the territory of the former Soviet Union, 187–188.