Crystal Data: Cubic. *Point Group:* $4/m\ \bar{3}\ 2/m$. Massive, granular, or embedded in other minerals. *Twinning:* On {111} as both twin and composition plane, the spinel law, simple, multiple, and lamellar.

Physical Properties: *Cleavage:* Parting on {111}, probable. *Fracture:* Conchoidal. *Tenacity:* Brittle. Hardness = 7.5–8 D(meas.) = 4.40 D(calc.) = [4.26]

Optical Properties: Opaque, translucent through thin edges. *Color:* Dark green to black; dark green in thin section. *Streak:* Dark grayish green to dark green. *Luster:* Vitreous. *Optical Class:* Isotropic. n = 1.80–1.83

Cell Data: *Space Group:* $Fd3m$ (synthetic). a = 8.15579(6) Z = 8

X-ray Powder Pattern: Synthetic.
2.459 (100), 2.884 (58), 1.442 (50), 1.570 (41), 0.8324 (22), 2.039 (17), 1.665 (17)

Chemistry:

	(1)	(2)	(3)
SiO_2		2.0	
Al_2O_3	60.7	56.0	58.66
Cr_2O_3		8.0	
FeO	34.7	24.9	41.34
MnO	0.2		
MgO	4.3	10.3	
CaO	0.1		
Total	100.0	101.2	100.00

(1) Plössberg, Germany. (2) Lake Lherz, France. (3) $FeAl_2O_4$.

Mineral Group: Forms three series, with spinel, with gahnite, and with chromite.

Mineral Group: Spinel group.

Occurrence: In high-grade metamorphosed ferruginous argillaceous sediments and in some mafic and ultramafic igneous rocks. Also in placers.

Association: Magnetite, corundum, ilmenite, sillimanite, andalusite.

Distribution: Numerous localities; a few well-studied occurrences include: from Načetín and Hoslau, near Ronsberg, Czech Republic. At Schenkenzell, Black Forest; at Plössberg, Bodenmais, Bavaria; and at Mendig, Eifel district, Germany. From Lake Lherz, Ariège, France. On the Island of Mull, Scotland. In the Khibiny massif, Kola Peninsula, Russia. From near Erode, Coimbatore, Madras, India. From between Farafangana and Vangaindrano, Madagascar. At Peekskill, Westchester Co., New York; near Whittles, Pittsylvania Co., Virginia; and from Rice, near San Carlos, Gila Co., Arizona, USA. From Cuauhtémoc, Chihuahua, Mexico. Found near Moorina, Tasmania.

Name: From the Latin, *Silva Hercynia*, for the Bohemian Forest, Czech Republic, where the mineral was first found.

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