

Crystal Data: Hexagonal. *Point Group:* 6/m 2/m 2/m. As hexagonal plates to 1 mm, flattened on {00*1} to 125 μm and also showing {10*3} and {10*0}.

Physical Properties: *Cleavage:* Good on {00*1}. *Tenacity:* Brittle. *Fracture:* Not distinctive. Hardness = ~6 VHN = 710-841, 793 average (50 g load). D(meas.) = n.d. D(calc.) = 5.016 Ferromagnetic.

Optical Properties: Opaque. *Color:* Black, pale gray in reflected light. *Streak:* Dark brown. *Luster:* Submetallic.

Optical Class: Anisotropism: Moderate. *Birefractance:* Distinct in air, weak in oil. Nonpleochroic. Straight extinction parallel to (0001).

R₁-R₂: (470) 22.1-20.1 (8.4-7.1)_{oil}, (546) 21.0-19.4 (7.8-6.6)_{oil}, (589) 20.2-18.8 (7.4-6.3)_{oil}, (650) 19.3-18.3 (6.8-5.9)_{oil}

Cell Data: *Space Group:* P6₃/mmc. *a* = 5.908(2) *c* = 23.39(1) *Z* = 2

X-ray Powder Pattern: Western Eifel area, Germany.

2.631 (100), 2.799 (80), 1.478 (70), 2.429 (60), 1.672 (50), 1.638 (40), 1.490 (40)

Chemistry:	(1)
K ₂ O	0.30
Na ₂ O	0.18
SrO	0.53
BaO	11.89
MgO	1.38
Al ₂ O ₃	0.32
TiO ₂	13.38
MnO	2.44
FeO	[5.71]
Fe ₂ O ₃	[62.61]
Total	98.74

(1) Western Eifel area, Germany; average electron microprobe analysis, ferrous-ferric iron calculated for charge balance; corresponds to (Ba_{0.84}Na_{0.06}K_{0.06}Sr_{0.05})_{Σ=1.01}(Fe³⁺_{8.48}Fe²⁺_{0.86}Ti_{1.82}Mg_{0.37}Mn_{0.37}Al_{0.06})_{Σ=11.96}O₁₉.

Mineral Group: Magnetoplumbite group, hawthorneite subgroup.

Occurrence: In cavities within melilite- and leucite-nephelinite basalts.

Association: Hematite, magnetite, titanite, götzenite, clinopyroxene, nepheline, biotite.

Distribution: In the Slabik company quarry, Üdersdorf, 5 km south-southwest of Daun, the Stolz quarry, Graulai, 1 km north-northeast of Lammersdorf, and at Altburg, 1.5 km west of Schalkenmehren, western Eifel region, Germany.

Name: Reflects the essential barium and titanium and relationship to the hexaferrites.

Type Material: Institute for Mineralogy and Crystallography, University of Vienna, and the Natural History Museum, Vienna, Austria.

References: (1) Lengauer, C.L., E. Tillmanns, and G. Hentschel (2001) Batiferrite, Ba[Ti₂Fe₁₀]O₁₉, a new ferrimagnetic magnetoplumbite-type mineral from the Quaternary volcanic rocks of the western Eifel area, Germany. *Mineral. Petrology*, 71, 1-19. (2) (2001) *Amer. Mineral.*, 86, 1112 (abs. ref. 1). (3) Holtstam, D. and U. Hälenius (2020) Nomenclature of the magnetoplumbite group. *Mineral. Mag.*, 84, 376-380.