

**Crystal Data:** Orthorhombic . *Point Group:* 2/m 2/m 2/m.

**Physical Properties:** *Cleavage:* *Tenacity:* *Fracture:*

Hardness = D(meas.) = D(calc.) =

**Optical Properties:** *Color:* *Streak:* *Luster:*

*Optical Class:*

**Cell Data:** *Space Group:* *Pnma.*  $a = 5.32(1)$   $b = 6.840(5)$   $c = 5.037(3)$

**X-Ray Diffraction Pattern:** Shergotty Martian meteorite.

2.498 (100), 1.450 (37), 1.829 (27), 2.518 (25), 2.660 (23), 1.625 (22), 3.225 (20)

**Chemistry:**

**Polymorphism & Series:** Polymorph of ilmenite.

**Mineral Group:**

**Occurrence:** At the rim of a transformed ilmenite-ülvospinel grain in a shock-melt pocket in a Martian meteorite.

**Association:** Feiite, tschaunerite.

**Distribution:** From the Shergotty Martian meteorite.

**Name:**

**Type Material:** E. Stolper Martian Meteorite Collection, Division of Geological and Planetary Sciences, California Institute of Technology, Pasadena, California, USA (thin section Shergotty-1).

**References:** (1) Hålenius, U., F. Hatert, M. Pasero, and S.J. Mills (2018) IMA Commission on New Minerals, Nomenclature and Classification (CNMNC) Newsletter 46. New minerals and nomenclature modifications approved in 2018. *Mineral. Mag.*, 82(6), 1378. (2) Morrison, S.M. and R.M. Hazen (2021) An evolutionary system of mineralogy, Part IV: Planetesimal differentiation and impact mineralization (4566 to 4560 Ma). *Amer. Mineral.*, 10(5), 730-761.