

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.