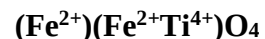


Tschaunerite



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:* Cmc₂m. *a* = 2.71(2) *b* = 9.216(8) *c* = 9.103(4)

X-Ray Diffraction Pattern: Shergotty Martian meteorite.
2.534 (100), 1.983 (63), 1.49 (37), 1.855 (33), 2.256 (31), 2.304 (27), 2.498 (25)

Chemistry:

Polymorphism & Series: Polymorph of ulvöspinel.

Mineral Group:

Occurrence: In the kernel of a transformed ulvöspinel-imenite grain trapped in a shock melt pocket in Martian meteorites.

Association:

Distribution: From the Shergotty and Tissint Martian meteorites.

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) Tschauner, O. (2019) High-pressure minerals. *Amer. Mineral.*, 104 (12), 1701-1731.