

Crystal Data: Cubic. *Point Group:* $4/m\bar{3}2/m$. Typically in small blebs but also in masses up to 25 tons; crystals rare. *Twinning:* On {111}; also on {112} if in lamellar masses.

Physical Properties: *Cleavage:* {001}; parting on {112}. *Fracture:* Hackly. *Tenacity:* Malleable. Hardness = 4 VHN = 160 (100 g load). D(meas.) = 7.3–7.87 D(calc.) = 7.874 Magnetic.

Optical Properties: Opaque. *Color:* Steel-gray to iron-black; in polished section, white. *Luster:* Metallic.

R: (400) 56.8, (420) 57.2, (440) 57.6, (460) 57.8, (480) 57.9, (500) 58.0, (520) 58.1, (540) 58.1, (560) 58.1, (580) 58.1, (600) 58.1, (620) 58.2, (640) 58.2, (660) 58.4, (680) 58.6, (700) 58.8

Cell Data: *Space Group:* $Im\bar{3}m$. $a = 2.8664$ $Z = 2$

X-ray Powder Pattern: Synthetic.
2.0268 (100), 1.1702 (30), 1.4332 (20), 0.9064 (12), 1.0134 (10), 0.8275 (6)

Chemistry:	(1)	(2)
Fe	93.16	99.16
Ni	2.01	
Co	0.80	
Cu	0.12	
C	2.34	0.065
P	0.32	0.207
S	0.41	
Cl	0.02	
SiO ₂		0.37
Total	99.18	99.802

(1) Blaafjeld, Greenland. (2) Cameron, Missouri, USA.

Occurrence: Rare in igneous rocks, especially basalts; in carbonaceous sediments; in volcanic fumaroles; and in petrified wood, mixed with “limonite” and organic matter.

Association: Pyrite, magnetite, troilite, wüstite, cohenite.

Distribution: In Greenland, at Fortune Bay, Mellemfjord, Asuk, and elsewhere on the west coast; on Disko Island, near Uivfaq and Kitdlit. From Ben Bhreck, Scotland. At Bühl, near Weimar, Hesse, Germany. In Poland, near Rouno, Wolyn district. In Russia, at Grushersk, in the Don district; from the Hatanga region, Siberia; in the Huntukungskii massif, Krasnoyarsk Krai; and on the Tolbachik fissure volcano, Kamchatka Peninsula. In the USA, at Cameron, Clinton Co., Missouri; and near New Brunswick, Somerset Co., New Jersey. In Canada, in Ontario, from Cameron Township, Nipissing district, and on St. Joseph Island, Lake Huron. Noted in small amounts at a number of additional localities.

Name: An Old English word for the metal; the chemical symbol from the Latin *ferrum*.

References: (1) Palache, C., H. Berman, and C. Frondel (1944) Dana's system of mineralogy, (7th edition), v. I, 114–116. (2) Ulf-Møller, F. (1985) Solidification history of the Kitdlit lens: immiscible metal and sulphide liquids from a basaltic dyke on Disko, central west Greenland. J. Petrol., 26, 64–91. (3) (1955) NBS Circ. 539, 4, 3.