

**Crystal Data:** Cubic. *Point Group:*  $4/m\bar{3}2/m$ . As anhedral interstitial vein fillings, to about 150  $\mu\text{m}$  long; as cubic crystals, skeletal, to 0.3 mm.

**Physical Properties:** Hardness = n.d. D(meas.) = n.d. D(calc.) = 7.08 Strongly ferromagnetic.

**Optical Properties:** Opaque. *Color:* Cream-white in reflected light.

*Optical Class:* Isotropic.

R: (470) 48.5, (546) 51.6, (589) 53.5, (650) 50.0

**Cell Data:** *Space Group:*  $Im\bar{3}m$ .  $a = 2.841(2)$   $Z = [0.5]$

**X-ray Powder Pattern:** North Haig meteorite.

2.005 (10), 1.160 (3), 1.42 (1)

**Chemistry:**

	(1)	(2)
Fe	84.7	83.1
Cr	0.10	0.04
Co	0.21	0.27
Ni	1.6	4.5
Si	15.3	13.7
P	0.06	0.17
Total	101.97	101.78

(1) North Haig meteorite; by electron microprobe, corresponds to  $(\text{Fe}_{2.78}\text{Ni}_{0.05}\text{Co}_{0.01})_{\Sigma=2.84}(\text{Si}, \text{P})_{1.00}$ . (2) Do.; by electron microprobe, corresponds to  $(\text{Fe}_{2.98}\text{Ni}_{0.15}\text{Co}_{0.01})_{\Sigma=3.14}(\text{Si}, \text{P})_{1.00}$ .

**Occurrence:** In a highly reduced brecciated meteorite (North Haig meteorite); in amygdaloidal basaltic porphyrite (Chatkal Range, Russia).

**Association:** Olivine, pigeonite, kamacite, troilite, carbonaceous material (North Haig meteorite); khamrabaevite (Chatkal Range, Russia).

**Distribution:** In the North Haig olivine-pigeonite achondrite (ureilite) meteorite. From the Ir-Tash stream basin, Arashan Mountains, Chatkal Range, Uzbekistan.

**Name:** To honor Dr. Hans E. Suess (1909–1993), Austrian-American geochemist, Professor of Chemistry, University of California at San Diego, La Jolla, California, USA, for his work in cosmochemistry and meteoritics.

**Type Material:** Institute of Meteoritics, University of New Mexico, Albuquerque, New Mexico, USA.

**References:** (1) Keil, K., J.L. Berkley, and L.H. Fuchs (1982) Suessite,  $\text{Fe}_3\text{Si}$ : a new mineral in the North Haig ureilite. *Amer. Mineral.*, 67, 126–131. (2) Novgorodova, M.I., R.G. Yusupov, M.T. Dmitrieva, A.I. Tsepin, A.V. Sivtsov, and A.I. Gorshkov (1984) Khamrabaevite,  $(\text{Ti}, \text{V}, \text{Fe})\text{C}$ , a new mineral. *Zap. Vses. Mineral. Obshch.*, 113, 697–703 (in Russian).