

Crystal Data: Isometric. *Point Group:* $4/m \bar{3} 2/m$. As irregular grains to $3\ \mu\text{m}$.

Physical Properties: *Cleavage:* n.d. *Fracture:* n.d. *Tenacity:* n.d.
Hardness = n.d. D(meas.) = n.d. D(calc.) = 5.76

Optical Properties: Opaque. *Color:* n.d. *Streak:* n.d. *Luster:* n.d.
Optical Class: n.d.

Cell Data: *Space Group:* $Pm\bar{3}\ m$. $a = 2.9$ Z = 1

X-ray Powder Pattern: Calculated pattern.
2.051 (100), 1.184 (34), 2.900 (20), 1.450 (17), 0.917 (12), 0.775 (12), 1.025 (10)

Chemistry:	(1)	(2)
Al	36	29.81
Fe	2.7	
<u>Cu</u>	<u>60</u>	<u>70.19</u>
Total	99.9	100.00

(1) Khatyrka CV3 carbonaceous chondrite meteorite; average of 15 electron microprobe analyses; corresponds to $\text{Al}_{1.15}\text{Cu}_{0.81}\text{Fe}_{0.04}$. (2) AlCu.

Occurrence: In metal assemblages in a carbonaceous chondrite meteorite.

Association: Khatyrkite, icosahedrite, hollisterite, spinel, hercynite, forsterite, silicate glass.

Distribution: From the Khatyrka CV3 carbonaceous chondrite meteorite, Koryak Mountains, Far Eastern region, Russia.

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Name: Honors Edward M. Stolper, California Institute of Technology, USA, for his fundamental contributions to petrology and meteorite research.

Type Material: National Museum of Natural History, Washington, D.C., USA (in section 126A of USNM 7908).

References: (1) Ma, C., C. Lin, L. Bindi, and P.J. Steinhardt (2017) Hollisterite (Al_3Fe), kryachkoite ($\text{Al,Cu}_6(\text{Fe,Cu})$), and stolperite (AlCu): Three new minerals from the Khatyrka CV3 carbonaceous chondrite. Amer. Mineral., 102, 690–693.