Stolperite AlCu

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

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	
Cu	60	70.19
Total	99.9	100.00

(1) Khatyrka CV3 carbonaceous chondrite meteorite; average of 15 electron microprobe analyses; corresponds to $Al_{1.15}Cu_{0.81}Fe_{0.04}$. (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 $(Al,Cu)_6(Fe,Cu)$, and stolperite (AlCu): Three new minerals from the Khatyrka CV3 carbonaceous chondrite. Amer. Mineral., 102, 690-693.