Crystal Data: Cubic. *Point Group*: $4/m \bar{3} 2/m$. Typically, granular massive, may be platy or scaly, to 2 mm.

Physical Properties: *Tenacity*: Malleable. Hardness = 2-3 D(meas.) = 2.707 D(calc.) = 2.697

Optical Properties: Opaque. *Color*: Grayish white, silver white. *Luster*: Metallic. *Optical Class*: Isotropic.

Cell Data: Space Group: Fm3 m (synthetic). a = 4.0494 Z = 4

X-ray Powder Pattern: Synthetic.

2.338 (100), 2.024 (47), 1.221 (24), 1.431 (22), 0.9289 (8), 0.9055 (8), 0.8266 (8)

Chemistry:		(1)	(2)	(3)
	Al	99.99-100.0	97.81	87.5
	Si			7.51
	Κ			1.82
	Ca			1.04
	Fe			1.55
	Р			0.17
	S			0.17
	Cl			0.20
	Total			99.99

Tolbachik volcano, Russia; by electron microprobe. (2) Getang, China; by electron microprobe.
Rila Mountain, Bulgaria; particle-induced X-ray emission analysis of inhomogeneous sample with a natural oxide coating, total includes 347 ppm Ti.

Occurrence: In a gabbro-dolerite massif (Billeekh intrusion, Russia); in aluminum-rich rocks; in high-temperature hydrothermal Sn-W deposits and their alteration zones; in volcanic ash. In a desilicated zoned gem pegmatite vein intruded between a small serpentinized ultrabasic body and biotite gneiss (Bulgaria).

Association: Cu, Zn, Sn, Pb, Cd, Fe, Sb, moissanite (Billeekh intrusive, Russia); magnetite, ilmenite, hematite, pyrite, iron (Tolbachik volcano, Russia); Cu, S, jarosite (Getang, China); phlogopite, chrysoberyl, emerald, apatite (Bulgaria).

Distribution: In Russia, in Siberia, from the Billeekh [TL], Tsepochechnyi, and Ust-Khann'ya intrusives, Vilyui River Basin; in the Nizhefokinskii intrusion, Norilsk district; from the Ukachilkan tin deposit, northeastern Sakha; and at the Tolbachik fissure volcano, Kamchatka Peninsula. In a mud volcano on Bulla Island, Caspian Sea. At Kyzylcheku, Karamazar, Tajikistan. From Getang, Guizhou Province, and in the Lianhuashan tungsten deposit, Guangdong Province, China. From Rila Mountain, Bulgaria.

Name: Named aluminum by Humphry Davy, who discovered the element.

Type Material: Geological Museum, Academy of Sciences, Yakutsk, Russia.

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