Wumuite KAl_{0.33}W_{2.67}O₉

Crystal Data: Hexagonal. *Point Group*: 6/m 2/m 2/m. As hexagonal crystals tabular on $\{00*1\}$ and modified by minor $\{10*0\}$ to 0.3 mm.

Physical Properties: Cleavage: Good on $\{00*1\}$ and $\{10*0\}$. Fracture: n.d. Tenacity: Brittle. Hardness = 5-6 D(meas.) = n.d. D(calc.) = 6.52

Optical Properties: Transparent. *Color*: Light green. *Streak*: White. *Luster*: Vitreous to adamantine.

Optical Class: Uniaxial (+). n(calc.) = 2.13

Cell Data: *Space Group*: P6/mmm. a = 7.2952(5) c = 3.7711(3) Z = 1

X-ray Powder Pattern: Near Nanyang village, Huaping County, Panzhihua-Xichang region, China. 3.161 (100), 2.413 (40), 6.261 (36), 3.727 (30), 1.820 (15), 1.577 (15), 2.610 (10)

Chemistry:

	(1)
K_2O	5.55
Al_2O_3	2.52
WO_3	91.16
TeO ₂	0.59
Total	99.82

(1) Near Nanyang village, Huaping County, Panzhihua-Xichang region, China; average electron microprobe analysis; corresponds to $K_{0.80}(W_{2.68}Al_{0.34}Te_{0.03})_{\Sigma=3.05}O_9$.

Occurrence: In a biotite-quartz monzonite pluton near the contact zone with gabbro and nearby quartz-vein-type Au mineralization. Formed by metasomatic reaction of high-temperature fluids rich in W and Te with potassium feldspar in the monzonite.

Association: Tewite, scheelite, alkali feldspar, biotite, clinoamphibole, ilmenite, zircon, zoisite, tourmaline, monazite-(Ce), allanite-(Ce), tellurite.

Distribution: From near Nanyang village, Huaping County, Panzhihua-Xichang region, on the border between Yunnan and Sichuan Provinces, China.

Name: For the Wumu River.

Type Material: Geological Museum of China, Beijing, China (M13782).

References: (1) Xue, Y., G. Li, and Y. Xie (2020) Wumuite ($KAl_{0.33}W_{2.67}O_9$) - a new mineral with an HTB-type structure from the Panzhihua-Xichang region in China. Eur. J. Mineral., 32(5), 483-494. (2) (2021) Amer. Mineral., 106, 1361-1362 (abs. ref. 1).