Wumuite KAl<sub>0.33</sub>W<sub>2.67</sub>O<sub>9</sub>

**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)
5.55
2.52
91.16
0.59
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<sub>0.33</sub>W<sub>2.67</sub>O<sub>9</sub>) - 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).