Janchevite $Pb_7V^{5+}(O_{8.5}\square_{0.5})Cl_2$

Crystal Data: Tetragonal. *Point group*: 4/*m* 2/*m* 2/*m*. As tabular crystals to 0.8 mm and in aggregates.

Physical Properties: *Cleavage*: Distinct on {001}. *Tenacity*: Brittle. *Fracture*: n.d.
Hardness = ~2.5 VHN = 73.4-100.8, 85.8 average (20 g load). D(meas.) = n.d. D(calc.) = 8.160

Optical Properties: Translucent. *Color*: Orange-red, light gray in reflected light with deep-red internal reflections. *Streak*: Orange. *Luster*: Adamantine.
Optical Class: n.d. *Bireflectance*: Weak.
R_1-R_2: (400) 22.28-22.87, (420) 21.47-22.04, (440) 20.84-21.40, (460) 20.31-20.80, (470) 20.06-20.56, (480) 19.80-20.32, (500) 19.47-19.89, (520) 19.13-19.56, (540) 18.86-19.24, (546) 18.81-19.20, (580) 18.50-18.98, (589) 18.59-19.06, (600) 18.67-19.14, (620) 18.86-19.28, (640) 18.90-19.35, (650) 18.85-19.31, (660) 18.80-19.27, (680) 18.64-19.09, (700) 18.52-18.94

Cell Data: *Space Group: I*4/*mmm*. *a* = 3.9591(5) *c* = 22.6897(3) Z = 1

X-ray Powder Pattern: Kombat mine, Grootfontein district, Otjozondjupa region, Namibia.
2.794 (100), 2.979 (86), 1.988 (49), 1.649 (46), 3.501 (31), 1.992 (26), 2.833 (25)

Chemistry:

	(1)	(2)
SiO_2	0.45	
V_2O_5	1.95	5.32
MoO_3	2.41	
PbO	91.64	91.47
Cl	4.16	4.11
-O = Cl	0.94	0.93
Total	99.67	100.00

(1) Kombat mine, Grootfontein district, Otjozondjupa region, northern Namibia; average of 7 electron microprobe analyses, supplemented by IR spectroscopy; corresponds to $Pb_{7.20}V^{5+}_{0.38}Mo^{6+}_{0.29}Si_{0.13}Cl_{2.06}O_{8.25}$. (2) $Pb_7V^{5+}(O_{8.5}\square_{0.5})Cl_2$.

Occurrence: A product of the regional metamorphism of a Pb-Mn-(As-Ba)-rich, chemically heterogeneous, volcanic-hydrothermal assemblage.

Association: Barite, hausmannite, calcite, magnesite, kombatite.

Distribution: From the Kombat mine, Grootfontein district, Otjozondjupa region, northern Namibia.

Name: Honors Macedonian mineralogist Simeon Janchev (b. 1942), a specialist in the mineralogy and petrology of igneous rocks and metasomatic ore deposits.

Type Material: A.E. Fersman Mineralogical Museum, Russian Academy of Sciences, Moscow, Russia (5105/1).

References: (1) Chukanov, N.V., D.O. Nekrasova, O.I. Siidra, Y.S. Polekhovsky, and I.V. Pekov (2018) Janchevite, $Pb_7V^{5+}(O_{8.5}\square_{0.5})Cl_2$, a new mineral from the Kombat Mine, Namibia. Can. Mineral., 56(2), 159-165. (2) (2018) Amer. Mineral., 103, 2042 (abs. ref. 1).