Javorieite $KFeCl_3$

Crystal Data: Orthorhombic. *Point group*: 2/*m* 2/*m* 2/*m*. As irregular grains to 15 μm.

Physical Properties: *Cleavage*: n.d. *Tenacity*: n.d. *Fracture*: n.d. Hardness = n.d. VHN = n.d. D(meas.) = n.d. D(calc.) = 2.82 Extremely hygroscopic and readily oxidized if exposed to air.

Optical Properties: [Translucent]. *Color*: Green. *Streak*: n.d. *Luster*: n.d.
Optical Class: n.d.

Cell Data: *Space Group: Pnma*. *a* = 8.715(6) *b* = 3.845(8) *c* = 14.15(3) Z = 4

X-ray Powder Pattern: Synthetic $KFeCl_3$.
2.83 (100), 2.67 (94), 2.69 (52), 1.92 (46), 7.07 (36), 2.75 (32), 2.88 (31)

Chemistry:

	(1)	(2)
K	18.5	19.42
Fe	19.3	27.74
Mn	4.2	
Cl	53.5	52.84
Na	1.4	
Insol	3.1	
Total	100.0	100.00

(1) Biely Vrch deposit, Western Carpathians, Slovakia; analysis by combined Raman, focused ion beam, energy dispersive spectroscopy and electron backscatter diffraction methods, contributions from quartz reported here as insol (Si 1.0, Al 0.4, O 1.7). (2) $KFeCl_3$.

Occurrence: In salt melt inclusions enclosed in vein quartz in a porphyry gold deposit.

Association: Halite, chlorocalcite, rinneite, a phase close to $Fe_2(OH)_3Cl$ (probably hibbingite), fluorite, scheelite/powellite, unidentified Ba-, Zn-, Pb-bearing chlorides, some salt hydrates (e.g. $FeCl_2 \cdot 2H_2O$), magnetite, K-feldspar, pyroxene, scheelite, chalcopyrite.

Distribution: From four localities in the Central Slovakia Volcanic Field, Western Carpathians, Slovakia, including the Biely Vrch porphyry gold deposit, 3.5 km southeast of Detva.

Name: For *Javorie* stratovolcano, the locality from which the first specimens were collected.

Type Material: Department of Mineralogy and Petrology, Comenius University, Bratislava, Slovakia (no. 7400).

References: (1) Koděra, P., Á. Takács, M. Racek, F. Šimko, J. Luptáková, T. Váczi, and P. Antal (2017) Javorieite, $KFeCl_3$: a new mineral hosted by salt melt inclusions in porphyry gold systems. Eur. J. Mineral., 29(1), 995-1004. (2) (2018) Amer. Mineral., 103, 2042-2043 (abs. ref. 1).