Svyatoslavite

Crystal Data: Orthorhombic. Point Group: 2/m 2/m 2/m. Crystals prismatic || [100], with {011}, {100}, and {110}, to 0.8 mm.

Physical Properties: Cleavage: Poor on {100}. Fracture: Conchoidal. Tenacity: Brittle. Hardness = ~6 D(meas.) = 2.695(5) D(calc.) = 2.687 Fluoresentes weak yellowish in SW UV.


X-ray Powder Pattern: Kopeysk, Russia.
3.22 (100), 4.16 (80), 2.09 (80), 2.71 (70), 1.967 (70), 1.670 (70), 1.670 (70), 3.75 (60)

Chemistry:

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\begin{array}{cc}
\text{SiO}_2 & 43.62 \\
\text{Al}_2\text{O}_3 & 35.37 \\
\text{FeO} & 0.02 \\
\text{MnO} & 0.00 \\
\text{MgO} & 0.03 \\
\text{CaO} & 19.33 \\
\text{Na}_2\text{O} & 0.41 \\
\text{K}_2\text{O} & 0.01 \\
\hline
\text{Total} & 98.79 \\
\end{array}
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(1) Kopeysk, Russia; by electron microprobe, average of two analyses; corresponds to (Ca₀.⁹₆Na₀.⁰₄)₀Σ=₁.₀₀Al₁.⁹₅Si₂.₀₄O₈.

Polymorphism & Series: Trimorphous with anorthite and dmisteinbergite.

Mineral Group: Feldspar group.

Occurrence: In burning dumps, as a sublimate on fracture walls in coal, formed at about 700 °C–900 °C.

Association: Anorthite, troilitre, cohenite, fayalite, titanite, graphite.

Distribution: From Kopeysk, Chelyabinsk coal basin, Southern Ural Mountains, Russia.

Name: For Svyatoslav Nestorovich Ivanov (1911– ), Soviet geologist, Ural Scientific Center, Yekaterinburg (Sverdlovsk), Russia.

Type Material: Il’menskii Preserve Museum, Miass, 16243vr; A.E. Fersman Mineralogical Museum, Academy of Sciences, Moscow, Russia.