Berezanskite

KTi$_2$Li$_3$Si$_{12}$O$_{30}$

Crystal Data: Hexagonal. Point Group: 6/m 2/m 2/m. In aggregates of platy grains with individuals to 0.6 mm.

Physical Properties: Cleavage: Perfect on {0001}. Tenacity: Brittle. Fracture: n.d. Hardness = 2.5-3 VHN = 68.5 (20 g load) D(meas.) = 2.66(2) D(calc.) = 2.674

Bright bluish white fluorescence in SW UV.


X-Ray Diffraction Pattern: Dara-i-Pioz glacier, Alai ridge, Tien-Shan Mountains, Tajikistan.

3.16 (100), 2.895 (95), 4.07 (85), 3.57 (80), 4.29 (50), 7.15 (40), 2.742 (30)

Chemistry:

<table>
<thead>
<tr>
<th>Element</th>
<th>Formula</th>
<th>Formula</th>
<th>Formula</th>
</tr>
</thead>
<tbody>
<tr>
<td>SiO$_2$</td>
<td>72.64</td>
<td>Al$_2$O$_3$</td>
<td>0.09</td>
</tr>
<tr>
<td>TiO$_2$</td>
<td>15.86</td>
<td>Nb$_2$O$_5$</td>
<td>0.56</td>
</tr>
<tr>
<td>FeO</td>
<td>0.16</td>
<td>BaO</td>
<td>0.11</td>
</tr>
<tr>
<td>K$_2$O</td>
<td>4.70</td>
<td>Na$_2$O</td>
<td>0.18</td>
</tr>
<tr>
<td>Li$_2$O</td>
<td>4.50</td>
<td>Total</td>
<td>99.79</td>
</tr>
</tbody>
</table>

(1) Dara-i-Pioz glacier, Alai ridge, Tien-Shan Mountains, Tajikistan; average electron microprobe analysis supplemented by IR spectroscopy, Li by atomic absorption spectroscopy; corresponds to (K$_{0.98}$Na$_{0.06}$Ba$_{0.01}$)$_2$Li$_{2.95}$Al$_{0.02}$Ti$_{1.94}$Nb$_{0.04}$Fe$^{2+}_{0.02}$Si$_{11.99}$O$_{30}$.

Mineral Group: Milarite group.

Occurrence: In a block of alkali pegmatite in glacial moraine.

Association: Quartz, aegirine, microcline, Cs-kupletskite, hyalotekite, polythionite, tadzhikite-(Y), dusmatovite, zektzerite, stillwellite-(Ce).

Distribution: From the moraine of Dara-i-Pioz glacier, Alai ridge, Tien-Shan Mountains, Tajikistan.

Name: Honors geologist Anatolyi Vladimirovich Berezansky (b. 1948).

Type Material: Mining Museum, St. Petersburg Mining Institute and in the Ilm Natural Reserve Museum, Miass, Russia.