Revdite

\[ \text{Na}_{16}\text{Si}_{16}\text{O}_{27}(\text{OH})_{26}\cdot28\text{H}_2\text{O} \]

Crystal Data: Monoclinic. Point Group: 2. Crystals prismatic, with sharply pointed terminations, to 2 mm; as spherical fibrous aggregates and irregular rounded masses.

Physical Properties: Cleavage: Perfect on \{100\}, less perfect on \{010\}. Tenacity: Fibers are flexible. Hardness = ~2 D(meas.) = 1.94 D(calc.) = 1.93 Dissolves slowly in water at room temperature, giving an alkaline reaction.


Optical Class: Biaxial (−). Orientation: \(Y \wedge c = 0° - 10°\). \(\alpha = 1.469(2)\) \(\beta = 1.482(2)\) \(\gamma = 1.490(2)\) \(2V(\text{meas.}) = 75°\) \(2V(\text{calc.}) = 75.6°\)

Cell Data: Space Group: \(C2\). \(a = 5.383(4)\) \(b = 9.972(9)\) \(c = 6.907(4)\) \(\beta = 96.78(1)°\) \(Z = 2\)

X-ray Powder Pattern: Lovozero massif, Russia.

4.46 (100), 13.37 (76), 3.34 (71), 2.501 (48), 3.79 (42), 2.879 (38), 2.230 (24)

Chemistry:

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
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</thead>
<tbody>
<tr>
<td>(\text{SiO}_2)</td>
<td>45.21</td>
<td>43.78</td>
</tr>
<tr>
<td>(\text{Na}_2\text{O})</td>
<td>22.25</td>
<td>22.58</td>
</tr>
<tr>
<td>(\text{K}_2\text{O})</td>
<td>0.08</td>
<td></td>
</tr>
<tr>
<td>(\text{H}_2\text{O})</td>
<td>32.50</td>
<td>33.64</td>
</tr>
<tr>
<td>Total</td>
<td>100.04</td>
<td>100.00</td>
</tr>
</tbody>
</table>

(1) Lovozero massif, Russia. (2) \(\text{Na}_{16}\text{Si}_{16}\text{O}_{27}(\text{OH})_{26}\cdot28\text{H}_2\text{O}\).

Occurrence: In ussingite veinlets cutting nepheline syenites in a differentiated alkalic massif (Lovozero massif, Russia); in sodalite xenoliths in syenite in an intrusive alkalic gabbro-syenite complex (Mont Saint-Hilaire, Canada).

Association: Ussingite (Lovozero massif, Russia); ussingite, villiaumite, kogarkoite, lovozerite, eudialyte (Mont Saint-Hilaire, Canada).

Distribution: From Mt. Karnasurt, Lovozero massif, Kola Peninsula, Russia. At Mont Saint-Hilaire, Quebec, Canada.

Name: For Revda, a town near Mt. Karnasurt, on which the mineral occurs.

Type Material: Geology Museum, Kola Branch, Academy of Sciences, Apatity, 5531; Mining Institute, St. Petersburg, 1204/1; A.E. Fersman Mineralogical Museum, Academy of Sciences, Moscow, Russia, 81394.