Crystal Data: Orthorhombic or monoclinic. *Point Group:* n.d. In platy aggregates, or massive, to 20 cm.

**Physical Properties:**
*Cleavage:* Perfect in one direction, parallel to the plates.
*D(mes.) = 2.32–2.40  D(calc.) = n.d.*

**Optical Properties:** Opaque, translucent in thin section. *Color:* White, light yellow to brownish yellow; black when manganese-rich. *Luster:* Vitreous to oily, pearly on cleavage surfaces.

*Optical Class:* Biaxial (−). *Pleochroism:* Distinct; X = brown to dark brown; Y = light brown to yellow-brown; Z = light brown. *Orientation:* X = a; Y = b; Z = c.  \[ \alpha = 1.740 \]
\[ \beta = \sim 1.772–1.778 \]
\[ \gamma = 1.775–1.780 \]
\[ 2V(meas.) = 21°–25° \]

**Cell Data:** *Space Group:* n.d.  Z = n.d.

**X-ray Powder Pattern:** Kola Peninsula, Russia; after heating at 900 °C.
1.690 (10), 3.21 (8), 2.48 (6), 1.361 (5), 2.90 (3), 2.18 (3), 1.633 (2)

**Chemistry:**

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(1)</th>
<th>(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Nb, Ta)₂O₅</td>
<td>7.16</td>
<td>7.51</td>
<td>MgO</td>
<td>0.00</td>
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<tr>
<td>SiO₂</td>
<td>3.96</td>
<td>2.80</td>
<td>CaO</td>
<td>6.72</td>
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<td>TiO₂</td>
<td>48.76</td>
<td>48.19</td>
<td>Na₂O</td>
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<td>ZrO₂</td>
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<td>6.56</td>
<td>K₂O</td>
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<tr>
<td>Al₂O₃</td>
<td>0.46</td>
<td>0.24</td>
<td>H₂O⁺</td>
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<tr>
<td>Fe₂O₃</td>
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<td>H₂O⁻</td>
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<td>MnO</td>
<td>0.00</td>
<td>0.04</td>
<td>Total</td>
<td>99.81</td>
</tr>
</tbody>
</table>

(1-2) Kola Peninsula, Russia.

**Occurrence:** Included in aegirine and microcline, in nepheline syenite pegmatite in an alkaline massif, in part probably as a replacement of murmanite.

**Association:** Aegirine, microcline, nepheline, zeolites, eudialyte, lorenzenite, lamprophyllite, titanium oxides.

**Distribution:** From [Mt. Karnasurt,] Lovozero massif, Kola Peninsula, Russia.

**Name:** For Dmitry Stepanovich Belyankin (1876–1953), prominent Russian mineralogist and petrographer.

**Type Material:** n.d.

**References:**