**Crystal Data:** Monoclinic.  **Point Group:** 2 or 2/m. As acicular crystals, to 50 µm, in aggregates; as powdery coatings on löllingite.

**Physical Properties:** Hardness = n.d.  D(meas.) = 2.64(2) (synthetic).  D(calc.) = 2.64  
H₂O is variable according to relative humidity; becomes cloudy on exposure to light.

**Optical Properties:** Semitransparent.  **Color:** White, gray, greenish gray to yellow.  **Luster:** Earthy.  **Optical Class:** Biaxial (+).  **Orientation:** Z ∧ c ≃ 3°.  
\[ \alpha = 1.573 – 1.581 \]  \[ \beta = 1.573 – 1.582 \]  
\[ \gamma = 1.626 – 1.636 \]  2V(meas.) = 13°–15°

**Cell Data:**  **Space Group:** P2₁ or P2₁/n (synthetic Fe(H₂AsO₄)₃·5H₂O).  
a = 15.25–15.363  
b = 19.60–19.844  
c = 4.72–4.752  
\[ \beta = 91.77° – 91.90° \]  
Z = 4

**X-ray Powder Pattern:** Kaatiala pegmatite, Finland.  
8.35 (vs), 9.91 (s), 7.72 (s), 6.09 (m), 3.76 (m), 3.53 (m), 3.408 (m)

**Chemistry:**

<table>
<thead>
<tr>
<th>Element</th>
<th>Formula</th>
<th>(1)</th>
<th>(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>As₂O₅</td>
<td>[51.9]</td>
<td>59.9</td>
<td></td>
</tr>
<tr>
<td>CO₂</td>
<td>1.73</td>
<td></td>
<td></td>
</tr>
<tr>
<td>As₂O₃</td>
<td>[14.2]</td>
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<td></td>
</tr>
<tr>
<td>Al₂O₃</td>
<td>0.58</td>
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<tr>
<td>Fe₂O₃</td>
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<td>13.8</td>
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<tr>
<td>MgO</td>
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<tr>
<td>CaO</td>
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<tr>
<td>H₂O</td>
<td>16.2</td>
<td>25.8</td>
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<tr>
<td><strong>Total</strong></td>
<td>[99.05]</td>
<td>99.5</td>
<td></td>
</tr>
</tbody>
</table>

(1) Kaatiala pegmatite, Finland; by AA, As determined after volatilization of arsenolite impurity, H₂O and CO₂ by elemental analyzer; after deduction of small amounts of Ca, Mg, As₂O₃, CO₂ as impurities, corresponds to Fe₀.₉₃Al₀.₃₈Σ=1.₃₁(H₂AsO₄)₃·5H₂O.  
(2) Niederbeerbach, Germany; corresponds to Fe₁.₀₀(H₂AsO₄)₃·3.₉₂·5.₂₆H₂O.

**Occurrence:** A secondary mineral in a granite pegmatite (Kaatiala pegmatite, Finland); in an oxidized Ag–As vein in gabbro (Niederbeerbach, Germany).

**Association:** Arsenolite, löllingite, calcite, gypsum (Kaatiala pegmatite, Finland).

**Distribution:** From the Kaatiala pegmatite, near Kuortane, Finland. In Germany, at Glasberg, Niederbeerbach, Odenwald, Hesse; Wittichen, Black Forest; St. Andreasberg, Harz Mountains; and Lauta, near Marienberg, Saxony. From Jáchymov (Joachimsthal), Czech Republic. In the U.S. mine, Gold Hill, Tooele Co., Utah, USA.

**Name:** For the Kaatiala pegmatite, Finland, in which it was first found.

**Type Material:** Mineralogical-Geological Museum, University of Oslo, Oslo, Norway; The Natural History Museum, London, England.

**References:**  