Uakitite

Crystal Data: Cubic. Point Group: 4/m 3 2/m. As <5 µm rounded grains (in schreibersite) or isometric (cubic) crystals (in daubréelite).


Optical Class: n = 2.3031 (synthetic)

Cell Data: Space Group: Fm 3 m. a = 4.1328(3) Z = 4

X-Ray Diffraction Pattern: Calculated pattern.
2.066 (100), 2.386 (71), 1.461 (61), 1.246 (29), 0.924 (21), 1.193 (19), 0.844(14)

Chemistry:

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>V</td>
<td>71.33</td>
<td>78.43</td>
</tr>
<tr>
<td>Cr</td>
<td>5.58</td>
<td></td>
</tr>
<tr>
<td>Fe</td>
<td>1.56</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>21.41</td>
<td>21.57</td>
</tr>
<tr>
<td>Total</td>
<td>99.88</td>
<td>100.00</td>
</tr>
</tbody>
</table>

(1) Uakit iron meteorite; average electron microprobe analysis; corresponds to (V0.91Cr0.07Fe0.02)1.00N1.00. (2) VN.

Occurrence: An accessory phase in an iron meteorite. Formed due to high-temperature (>1000 °C) separation of Fe-Cr-rich sulfide liquid from Fe-metal melt.

Association: In troilite-daubréelite (±schreibersite) inclusions (to 100 µm) and in troilite-daubréelite nodules (to 1 cm) in Fe-Ni-metal (kamacite).

Distribution: From the Uakit iron meteorite (IIAB) found in 2016 in the Baunt Evenk district, Republic of Buryatia, Russia.

Name: For the Uakit iron meteorite.

Type Material: Central Siberian Geological Museum, V.S. Sobolev Institute of Geology and Mineralogy, Siberian Branch of the Russian Academy of Sciences, Novosibirsk, Russia (52 meteorite Uakit) and the Museum of the Buryatian Scientific Center, Siberian Branch of the Russian Academy of Sciences, Ulan-Ude, Russia (Uakit-MBSC435/G84).