**Pauflerite**

**VO(SO₄)**

**Crystal Data:** Orthorhombic.  *Point Group: 2/m 2/m 2/m.*  As prismatic crystals to 0.1 mm.

D(meas.) = 3.36(4)  D(calc.) = 3.299  Non-fluorescent.

*Optical Class:* Biaxial (+).  α = 1.731(4)  β = 1.778(2)  γ = 1.845(4)  2V(meas.) = 90°  2V(calc.) = 83°  
*Orientation:* X = a.  *Pleochroism:* X = light green,  Y = bluish green,  Z = light green-blue.

**Cell Data:**  *Space Group:* Pnma.  
*a* = 7.3890(13)  *b* = 6.2740(11)  *c* = 7.0788(11)  
*Z* = 4

**X-Ray Diffraction Pattern:** Calculated pattern.  
3.28 (100), 3.14 (73), 3.54 (31), 5.11 (27), 3.19 (22), 4.70 (18), 2.845 (18)

**Chemistry:**

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
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</thead>
<tbody>
<tr>
<td>VO₂</td>
<td>50.40</td>
<td>50.88</td>
</tr>
<tr>
<td>SO₄</td>
<td>49.30</td>
<td>49.12</td>
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<tr>
<td>Total</td>
<td>99.70</td>
<td>100.00</td>
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</tbody>
</table>

(1) Tolbachik volcano, Kamchatka Peninsula, Russia; average electron microprobe analysis; corresponds to V₀.99S₁.01O₅.  (2) VO(SO₄).

**Occurrence:** Sublimate at volcanic fumaroles.

**Association:** Shcherbinaite.

**Distribution:** First cinder cone of the North breach of the Great Fissure eruption, Tolbachik volcano, Kamchatka Peninsula, Russia. At Colima volcano, State of Colima, Mexico.

**Name:** Honors Professor Peter Paufler, Technical University of Dresden, for his contributions to physical and structural crystallography and mineralogy.

**Type Material:** Mineralogical Museum, Department of Mineralogy, St. Petersburg University, Russia.

**References:**  