Crystal Data: Orthorhombic. Point Group: 2/m 2/m 2/m or mm2. Crystals flattened on {001}, pseudohexagonal, diamond- or barrel-shaped, to 1.5 mm, showing {001}, {011}, {111}, {010}; composite or in subparallel aggregates, intimately intergrown with metavandendriesscheite; in dense microcrystalline aggregates.


Optical Properties: Transparent. Color: Amber-orange, yellowish orange to orange. Optical Class: Biaxial (–). Pleochroism: X = nearly colorless; Y = Z = yellow-orange to golden yellow. Orientation: X = c; Y = b; Z = a. Dispersion: r > v, strong. α = 1.780(5) β = 1.850(10) γ = 1.860(10) 2V(meas.) = 60(2)°

Cell Data: Space Group: Pnma, P21ma, or Pm2a. a = 14.07(4) b = 40.85(12) c = 43.33(13) Z = 36

X-ray Powder Pattern: Shinkolobwe, Congo; cannot be distinguished from metavandendriesscheite. 7.24 (100), 3.61 (100), 3.17 (75), 1.985 (40), 3.53 (25), 2.522 (25), 2.034 (15)

Chemistry:

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
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<tbody>
<tr>
<td>UO₄</td>
<td>82.36</td>
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<td>SiO₂</td>
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<tr>
<td>PbO</td>
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<td>H₂O</td>
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<td>6.86</td>
<td>8.73</td>
<td>8.86</td>
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</tbody>
</table>

Total 100.48 99.24 [100.00] 100.00

(1–2) Shinkolobwe, Congo. (3) Great Bear Lake, Canada; original total given as 97.65%; recalculated to 100% after deduction of insoluble 4.10%. (4) PbU₇O₂₂·12H₂O.

Occurrence: In the oxidized zone of uranium-bearing mineral deposits.

Association: Metavandendriesscheite, fourmarierite, becquerelite, metatorbernite, rutherfordine, uraninite (Shinkolobwe, Congo).


Name: Honors Adrien Vandendriessche (1914–1940), Belgian mineralogist and geologist, University of Ghent, Ghent, Belgium.

Type Material: Harvard University, Cambridge, Massachusetts, USA, 106523.


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