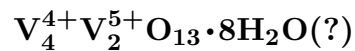


# Vanoxite



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**Crystal Data:** n.d. *Point Group:* n.d. Crystals rare, may have rhombic sections, minute; commonly massive.

**Physical Properties:** Hardness = n.d. D(meas.) = n.d. D(calc.) = n.d.

**Optical Properties:** Opaque, transparent in thin fragments. *Color:* Black; brownish in transmitted light.

*Optical Class:* n.d.  $n =$  n.d.

R: n.d.

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

**X-ray Powder Pattern:** n.d.

<b>Chemistry:</b>	(1)	(2)	(3)
V <sub>2</sub> O <sub>5</sub>	27.03	29.91	27.65
V <sub>2</sub> O <sub>4</sub>	51.60	49.66	50.44
H <sub>2</sub> O	21.37	20.43	21.91
Total	[100.00]	[100.00]	100.00

(1–2) Jo Dandy mine, Colorado, USA; analyses recalculated to 100% after deduction of unstated amounts of impurities. (3) V<sub>4</sub><sup>4+</sup>V<sub>2</sub><sup>5+</sup>O<sub>13</sub>•8H<sub>2</sub>O.

**Occurrence:** A replacement of fossil wood and cementing sandstone in Colorado Plateau-type U–V deposits.

**Association:** Gypsum, carnotite, hewettite, pintadoite, tyuyamunite, pascoite, pyrite.

**Distribution:** In the USA, in Colorado, from the Jo Dandy mine and the Bill Bryan claim, Wild Steer Canyon, about 10 km south of Gateway, and the Henry Clay claim, Long Park, Paradox Valley, Urvan district, Montrose Co.; in the Small Spot mine, Maverick Mesa, Mesa Co.; in Utah, from Poison Mesa, near Thompson, Grand Co.

**Name:** As a VANadium OXide.

**Type Material:** Harvard University, Cambridge, Massachusetts, 103477; National Museum of Natural History, Washington, D.C., USA, 95059.

**References:** (1) Palache, C., H. Berman, and C. Frondel (1944) Dana's system of mineralogy, (7th edition), v. I, 601–602.