

CHEMICAL DATA

Type of analysis: Electron microprobe (Shimadzu EPMA-1720) in WDS mode; acceleration voltage = 15 kV; beam current = 10 nA, beam diameter = 2 μm , number of analyses = 15. Analytical data are given in Table 1.

Table 1. Chemical data (wt%) for vanpeltite.

Const.	Mean	Min.	Max.	S.D.	<i>apfu</i>	Probe Standard
MoO ₃ (total)	(74.16)	72.78	76.71	1.11	2.28	Pure Mo metal
MoO ₃ (calc.)	64.95					
MoO ₂ (calc.)	8.17					
SO ₂	10.42	8.74	11.46	0.90	0.72	Pure FeS ₂
H ₂ O	16.28					Added in ideal value
Total	99.82					

Note:

1. The MoO₃ (calc.) and MoO₂ (calc.) contents were calculated from the measured MoO₃ content (74.16 wt.%) by assuming Mo⁶⁺ = 2 *apfu* (at the octahedrally coordinated sites, see below).
2. The H₂O content was added to achieve the ideal value of 4H₂O *pfu*, as determined from the structure analysis.

The empirical formula was calculated based on 12 O *apfu*, as determined from the structure analysis, yielding

