

$\text{Cs}_{0.87}\text{W}_3\text{O}_9$ $hP26$ (182) $P6_322 - ihgb$ $\text{Cs}_{0.29}\text{WO}_3$ [1], HTB (hexagonal tungsten bronze)Structural features: WO_6 octahedra share vertices to form a 3D-framework; Cs in channels of hexagonal cross-section parallel to $[001]$.

Prinz H. et al. (1992) [1]

 $\text{Cs}_{0.87}\text{O}_9\text{W}_3$ $a = 0.7412$, $c = 0.76$ nm, $c/a = 1.025$, $V = 0.3616$ nm³, $Z = 2$

site	Wyck.	sym.	x	y	z	occ.	atomic environment
O1	$12i$	1	0.216	0.423	0.021		non-colinear W_2
O2	$6h$	$\bar{2}$	0.512	0.024	$\frac{1}{4}$		non-colinear W_2
W3	$6g$	$\bar{2}$	0.4839	0	0		octahedron O_6
Cs4	$2b$	3.2	0	0	$\frac{1}{4}$	0.87	pseudo Frank-Kasper O_{18}Cs_2

Experimental: single crystal, diffractometer, X-rays, $R = 0.058$, $T = 292$ K

References: [1] Prinz H., Müller U., Ha Eierdanz M.L. (1992), Z. Anorg. Allg. Chem. 609, 95-98.