

$(\text{Ta}_{0.33}\text{W}_{0.67})_3\text{BiO}_{10}$  $hP14$  $(189) P-62m - jgfb a$ **BiTaW<sub>2</sub>O<sub>10</sub>** [1]

Structural features: (W,Ta)O<sub>6</sub> octahedra share vertices to form an HTB-type framework; Bi and additional O in channels of hexagonal cross-section parallel to [001].

Deschanvres A. et al. (1971) [1]

 $\text{BiO}_{10}\text{TaW}_2$  $a = 0.742, c = 0.3882 \text{ nm}, c/a = 0.523, V = 0.1851 \text{ nm}^3, Z = 1$ 

site	Wyck.	sym.	$x$	$y$	$z$	occ.	atomic environment
O1	$6j$	$m..$	0.21	0.4	0		non-colinear W <sub>2</sub>
O2	$3g$	$m2m$	0.5	0	$\frac{1}{2}$		non-colinear W <sub>2</sub>
M3	$3f$	$m2m$	0.49	0	0		octahedron O <sub>6</sub>
O4	$1b$	$-62m$	0	0	$\frac{1}{2}$		colinear Bi <sub>2</sub>
Bi5	$1a$	$-62m$	0	0	0		hexagonal bipyramid O <sub>8</sub>

 $M3 = 0.667W + 0.333Ta$ Transformation from published data: origin shift  $0\ 0\ \frac{1}{2}$ Experimental: powder, film, X-rays,  $R = 0.136$ 

References: [1] Deschanvres A., Leparmentier L., Raveau B. (1971), Bull. Soc. Chim. Fr. 1971, 3459-3463.