

Nb ₃ Te ₄	<i>hP</i> 14	(176) <i>P</i> 6 ₃ / <i>m</i> – <i>h</i> ² <i>d</i>
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Nb₃Te₄ [1]; Nb₃Se₄ [1]
 Structural features: Units of three face-linked NbTe₆ octahedra share edges to form a 3D-framework with channels of hexagonal cross-section parallel to [001]; shorter Nb-Nb distances within zigzag chains parallel to [001]. See Fig. IV.52.

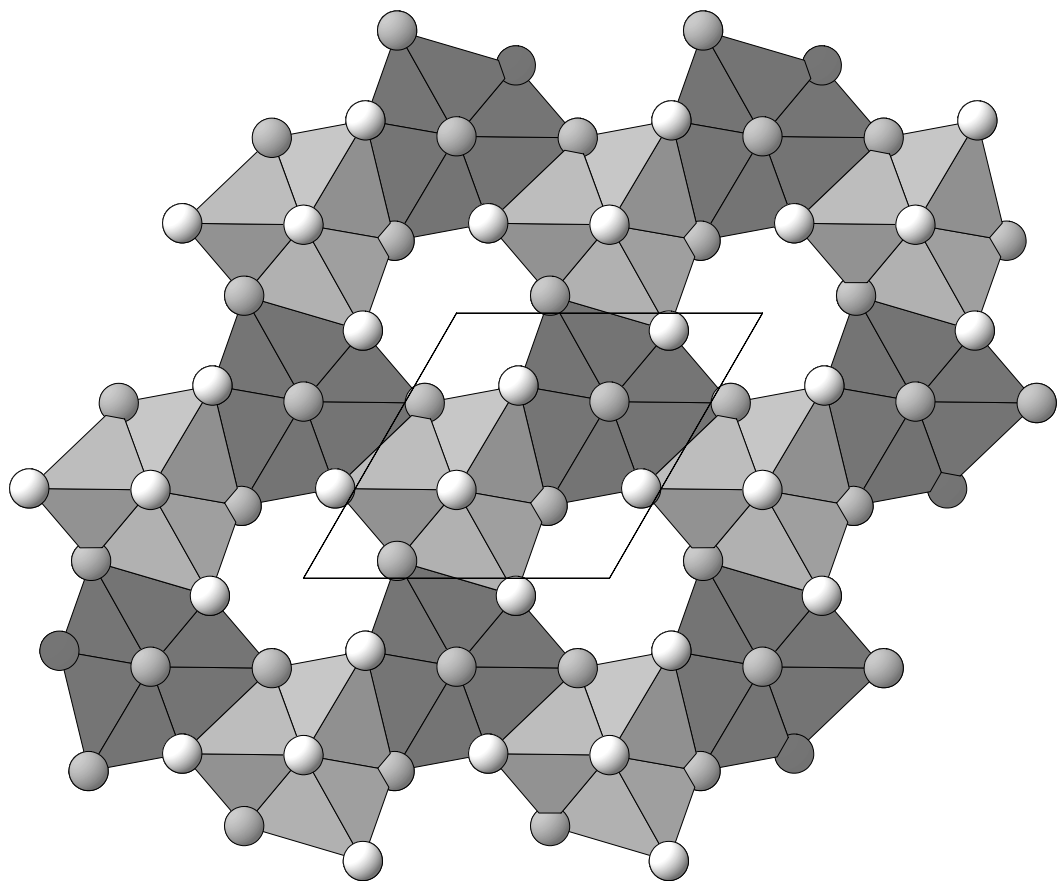


Fig. IV.52. **Nb₃Te₄**
 Arrangement of NbTe₆ octahedra viewed along [001]. Light and dark octahedra are shifted by *c*/2.

Selte K., Kjekshus A. (1964) [1]
 Nb₃Te₄
 $a = 1.0671$, $c = 0.36468$ nm, $c/a = 0.342$, $V = 0.3596$ nm³, $Z = 2$

site	Wyck.	sym.	<i>x</i>	<i>y</i>	<i>z</i>	occ.	atomic environment
Nb1	6 <i>h</i>	<i>m</i> ..	0.1039	0.4886	¹ / ₄		8-vertex polyhedron Te ₆ Nb ₂
Te2	6 <i>h</i>	<i>m</i> ..	0.2731	0.3389	¹ / ₄		4-vertex polyhedron Nb ₄
Te3	2 <i>d</i>	-6..	² / ₃	¹ / ₃	¹ / ₄		trigonal prism Nb ₆

Transformation from published data: *y*,*x*,*-z*; origin shift 0 0 ¹/₂
 Experimental: single crystal, Weissenberg photographs, X-rays, R = 0.141

Remarks: In [1] the NbTe_6 are erroneously stated to be connected (only) via common edges.

References: [1] Selte K., Kjekshus A. (1964), *Acta Crystallogr.* 17, 1568-1572.