

**K<sub>8</sub>HgIn<sub>10</sub>** [1]

Structural features: (In,Hg)<sub>11</sub> clusters (pentacapped trigonal prism) in a Mg-type (h.c.p.) arrangement. See Fig. IV.63.

Sevov S.C. et al. (1993) [1]

Hg<sub>1.03</sub>In<sub>9.97</sub>K<sub>8</sub>

$a = 0.99812$ ,  $c = 1.6851$  nm,  $c/a = 1.688$ ,  $V = 1.4539$  nm<sup>3</sup>,  $Z = 2$

site	Wyck.	sym.	<i>x</i>	<i>y</i>	<i>z</i>	occ.	atomic environment
M1	12 <i>i</i>	1	0.31453	0.36822	0.1569		bicapped square prism In <sub>4</sub> K <sub>6</sub>
K2	12 <i>i</i>	1	0.3704	0.0695	0.0651		14-vertex Frank-Kasper In <sub>7</sub> K <sub>7</sub>
In3	6 <i>h</i>	<i>m</i> ..	0.1181	0.4638	$\frac{1}{4}$		icosahedron In <sub>8</sub> K <sub>4</sub>
In4	4 <i>f</i>	3..	$\frac{1}{3}$	$\frac{2}{3}$	0.10048		icosahedron In <sub>6</sub> K <sub>6</sub>
K5	2 <i>d</i>	-6..	$\frac{2}{3}$	$\frac{1}{3}$	$\frac{1}{4}$		15-vertex Frank-Kasper In <sub>9</sub> K <sub>6</sub>
K6	2 <i>a</i>	-6..	0	0	$\frac{1}{4}$		15-vertex Frank-Kasper In <sub>9</sub> K <sub>6</sub>

M1 = 0.828In + 0.172Hg

Transformation from published data: origin shift 0 0  $\frac{1}{2}$

Experimental: single crystal, diffractometer, X-rays, R = 0.024

Remarks: In table 2 of [1] the *y*-coordinate of former K(1) is misprinted as 0.0695 instead of -0.0695 (checked on interatomic distances).

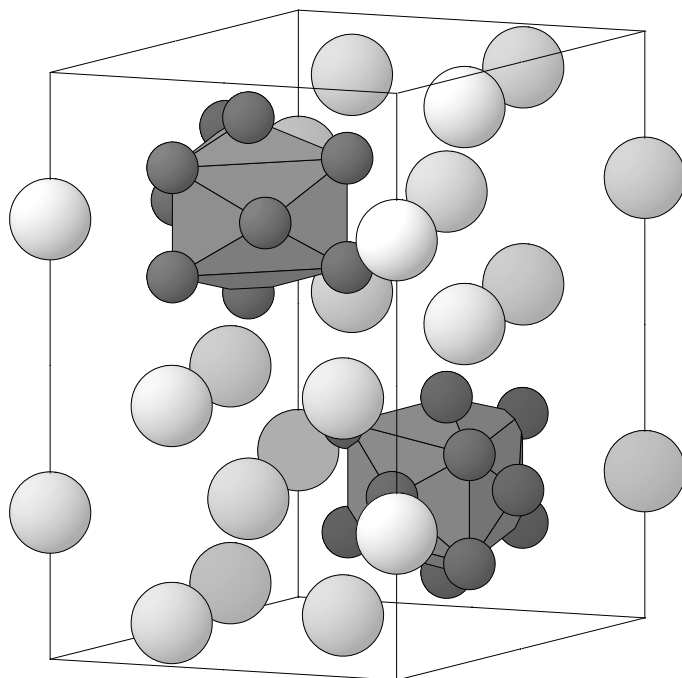


Fig. IV.63. **K<sub>8</sub>HgIn<sub>10</sub>**

Arrangement of (In,Hg)<sub>11</sub> clusters (pentacapped trigonal prisms; (In,Hg) atoms small) and K atoms (large).

References: [1] Sevov S.C., Ostenson J.E., Corbett J.D. (1993), J. Alloys Compd. 202, 289-294.