$CrSi_2$	*hP*9	(180) $P6_222$ – ic

$CrSi_2$ [2], Strukturbericht notation C40
Structural features: Close-packed $CrSi_2$ layers (a Si_2 hexagon mesh the hexagons of which are centered by Cr); the Cr atoms in consecutive layers are located above the centers of hexagon edges. See Fig. IV.39.

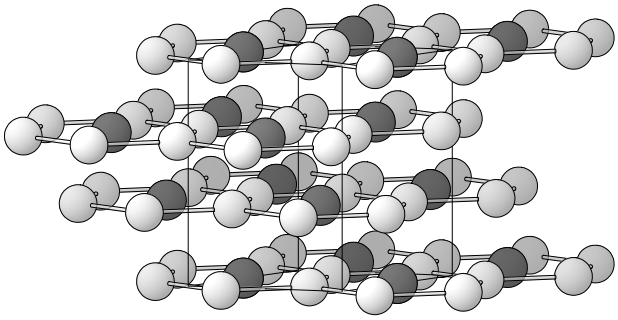

Fig. IV.39. **$CrSi_2$**

Arrangement of Cr (dark) and Si (light) atoms.

Tanaka K. et al. (2001) [1]
$CrSi_2$
a = 0.44283, c = 0.6368 nm, c/a = 1.438, V = 0.1081 nm^3, Z = 3

site	Wyck.	sym.	x	y	z	occ.	atomic environment
Si1	6*i*	..2	0.16578	0.33156	0		rhombic dodecahedron Si_9Cr_5
Cr2	3*c*	222	$^1/_2$	0	0		rhombic dodecahedron $Si_{10}Cr_4$

Transformation from published data ($P6_422$): new axes -a,-b,-c
Experimental: single crystal, diffractometer, X-rays, R = 0.011

Remarks: In [3] the space group is given as $P6_222$ but the atom coordinates refer to a non-standard setting of the enantiomorphic space group (181) $P6_422$.

References: [1] Tanaka K., Nawata K., Inui H., Yamaguchi M., Koiwa M. (2001), Mater. Res. Soc. Symp. Proc. 646, N4.3.1-N4.3.5. [2] Borén B. (1934), Ark. Kemi Mineral. Geol. 11A(10), 1-28. [3] (1937), Strukturbericht 3, 35.