

$\text{Ce}_2\text{Rh}_{12}\text{Si}_7$  $hP26$  $(176) P6_3/m - h^3\text{eda}$  **$\text{Ce}_2\text{Rh}_{12}\text{Si}_7$**  [1]

Structural features: Infinite columns of base-linked  $\text{Si}(\text{Ce}_2\text{Rh}_4)\text{Rh}_3$  tricapped trigonal prisms share atoms to form a 3D-framework with propeller-like columns; additional Si (partial disorder) in channels of hexagonal cross-section parallel to  $[001]$ .

Tursina A.I. et al. (2004) [1]

 $\text{Ce}_2\text{Rh}_{12}\text{Si}_{7.11}$  $a = 0.9706$ ,  $c = 0.38394$  nm,  $c/a = 0.396$ ,  $V = 0.3132$  nm<sup>3</sup>,  $Z = 1$ 

site	Wyck.	sym.	$x$	$y$	$z$	occ.	atomic environment
Rh1	$6h$	$m..$	0.06278	0.44232	$1/4$		cuboctahedron $\text{Si}_4\text{Rh}_5\text{Ce}_3$
Rh2	$6h$	$m..$	0.25955	0.14048	$1/4$		
Si3	$6h$	$m..$	0.2903	0.3966	$1/4$		
Si4	$4e$	$3..$	0	0	0.091	0.123	monocapped trigonal prism $\text{Rh}_7$
Ce5	$2d$	$-6..$	$2/3$	$1/3$	$1/4$		23-vertex polyhedron $\text{Rh}_{12}\text{Si}_9\text{Ce}_2$
Si6	$2a$	$-6..$	0	0	$1/4$	0.31	

Experimental: single crystal, diffractometer, X-rays,  $R = 0.025$ 

Remarks: Short interatomic distances for partly occupied site(s).

References: [1] Tursina A.I., Gribov A.V., Seropegin Y.D., Bodak O.I. (2004), J. Alloys Compd. 367, 142-145.