SiC	*hP*16	(186) $P6_3mc$ – b^6a^2

SiC 8H [1], carborundum VIII
Structural features: Close-packed Si layers in hc_3 stacking, C in tetrahedral voids (same stacking position as the preceding Si layer). CSi_4 tetrahedra share vertices to form a 3D-framework.

Ramsdell L.S., Kohn J.A. (1952) [1]
CSi
$a = 0.3079$, $c = 2.0147$ nm, $c/a = 6.543$, $V = 0.1654$ nm^3, $Z = 8$

site	Wyck.	sym.	*x*	*y*	*z*	occ.	atomic environment
Si1	2*b*	3*m*.	$^1/_3$	$^2/_3$	0.125		tetrahedron C_4
C2	2*b*	3*m*.	$^1/_3$	$^2/_3$	0.21875		tetrahedron Si_4
Si3	2*b*	3*m*.	$^1/_3$	$^2/_3$	0.375		tetrahedron C_4
C4	2*b*	3*m*.	$^1/_3$	$^2/_3$	0.46875		tetrahedron Si_4
Si5	2*b*	3*m*.	$^1/_3$	$^2/_3$	0.75		tetrahedron C_4
C6	2*b*	3*m*.	$^1/_3$	$^2/_3$	0.84375		tetrahedron Si_4
Si7	2*a*	3*m*.	0	0	0.0		tetrahedron C_4
C8	2*a*	3*m*.	0	0	0.09375		tetrahedron Si_4

Transformation from published data: origin shift 0 0 0.5
Experimental: single crystal, Weissenberg photographs, X-rays

Remarks: Zhdanov notation $(44)_2$. Idealized coordinates.

References: [1] Ramsdell L.S., Kohn J.A. (1952), Acta Crystallogr. 5, 215-224.