| SiC | *hP*12 | (186) $P6_3mc$ – $b^4a^2$ |
|---|---|---|

**SiC 6H** [2], moissanite-6H, carborundum II, Strukturbericht notation B6; ZnS 6H [3]
Structural features: Close-packed Si layers in $hc_2$ stacking; C in tetrahedral voids (same stacking position as the preceding Si layer). $CSi_4$ tetrahedra share vertices to form a 3D-framework.

Gomes De Mesquita A.H. (1967) [1]
CSi
$a$ = 0.308065, $c$ = 1.511738 nm, $c/a$ = 4.907, $V$ = 0.1243 $nm^3$, $Z$ = 6

| site | Wyck. | sym. | $x$ | $y$ | $z$ | occ. | atomic environment |
|---|---|---|---|---|---|---|---|
| Si1 | 2*b* | 3*m*. | $^1/_3$ | $^2/_3$ | 0.20778 | | tetrahedron $C_4$ |
| C2 | 2*b* | 3*m*. | $^1/_3$ | $^2/_3$ | 0.33298 | | tetrahedron $Si_4$ |
| Si3 | 2*b* | 3*m*. | $^1/_3$ | $^2/_3$ | 0.54134 | | tetrahedron $C_4$ |
| C4 | 2*b* | 3*m*. | $^1/_3$ | $^2/_3$ | 0.66647 | | tetrahedron $Si_4$ |
| C5 | 2*a* | 3*m*. | 0 | 0 | 0.00000 | | tetrahedron $Si_4$ |
| Si6 | 2*a* | 3*m*. | 0 | 0 | 0.37461 | | tetrahedron $C_4$ |

Transformation from published data: origin shift 0 0 0.12539
Experimental: single crystal, diffractometer, X-rays, wR = 0.021

Remarks: Zhdanov notation (33). Cell parameters from [4].

References: [1] Gomes De Mesquita A.H. (1967), Acta Crystallogr. 23, 610-617. [2] Ott H. (1931), Z. Kristallogr. 61, 515-531. [3] Frondel C., Palache C. (1948), Science (Washington D.C.) 107, 602. [4] Taylor A., Jones R.M. (1959), Proc. Conf. Silicon Carbide High Temp. Semicond., 1959, New York: Pergamon Press, p. 147.