$Ca_2[SiO_4]$	*hP*14	(186) $P6_3mc$ – cb^3a

Ca_2SiO_4 α [1]; Na_2MnO_4 [2]
Structural features: Ca atoms and SiO_4 tetrahedra in a distorted Ni_2In-type (ht-Co_2Ge) arrangement. Derivative of α-K_2SO_4.

Eysel W., Hahn T. (1970) [1]
Ca_2O_4Si
a = 0.5419, c = 0.7022 nm, c/a = 1.296, V = 0.1786 nm^3, Z = 2

site	Wyck.	sym.	x	y	z	occ.	atomic environment
O1	6*c*	.*m*.	0.83	0.17	0.25		single atom Si
Ca2	2*b*	3*m*.	$^1/_3$	$^2/_3$	0.05		pseudo Frank-Kasper $O_{13}Si_4Ca_3$
O3	2*b*	3*m*.	$^1/_3$	$^2/_3$	0.44		single atom Si
Si4	2*b*	3*m*.	$^1/_3$	$^2/_3$	0.66		tetrahedron O_4
Ca5	2*a*	3*m*.	0	0	0.0		6-vertex polyhedron O_6

Transformation from published data: -*x*,-*y*,-*z*; origin shift 0 0 0.5

Remarks: Phase stable at T > 1723 K. In [2] the Schoenflies symbol for the space group is misprinted as C_{6v}^6 instead of C_{6v}^4 and the occupancy of former O2 as 4 atoms per cell instead of 6 atoms per cell.

References: [1] Eysel W., Hahn T. (1970), Z. Kristallogr. 131, 322-341. [2] Kopelev N.S., Val'kovskii M.D., Popov A.I., Chumaevskii N.A. (1991), Russ. J. Inorg. Chem. 36, 1246-1250 (Zh. Neorg. Khim. 36, 2210-2216).