# CAS

*Cmcm*

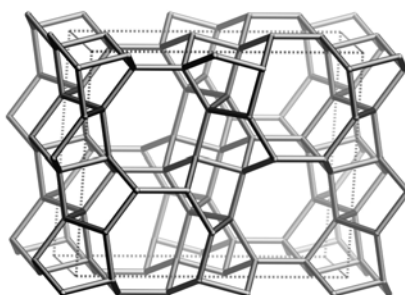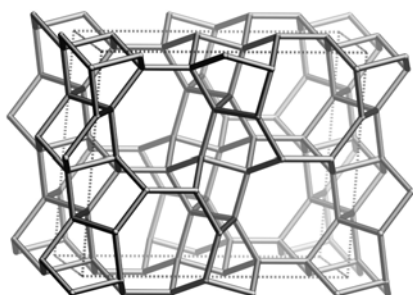## Framework Type Data



*framework viewed along [100]*

**Idealized cell data:**     orthorhombic, *Cmcm*, $a = 5.3$Å, $b = 14.1$Å, $c = 17.2$Å

**Coordination sequences and vertex symbols:**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $T_1$ (8,*m*) | 4 | 12 | 23 | 41 | 70 | 97 | 125 | 174 | 224 | 264 | $5 \cdot 5 \cdot 5 \cdot 5 \cdot 6 \cdot 8_2$ |
| $T_2$ (8,*m*) | 4 | 12 | 26 | 43 | 64 | 101 | 138 | 165 | 215 | 284 | $5 \cdot 6 \cdot 5 \cdot 6 \cdot 6_2 \cdot 8_2$ |
| $T_3$ (8,*m*) | 4 | 12 | 23 | 43 | 72 | 95 | 128 | 177 | 225 | 259 | $5 \cdot 6 \cdot 5 \cdot 6 \cdot 5_2 \cdot 6$ |

**Secondary building units:**     5-1

**Composite building units:**

*cas*          *bik*



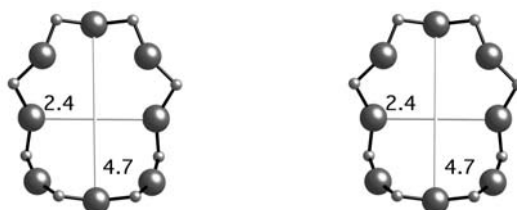**Materials with this framework type:**
    *Cesium Aluminosilicate[1,2]
    EU-20b (**CAS**-**NSI** structural intermediate)[3]

# Type Material: Cesium Aluminosilicate CAS

## Type Material Data

**Crystal chemical data:**   |Cs$_4$| [Al$_4$Si$_{20}$O$_{48}$]-**CAS**
orthorhombic, *Ama*2, $a$ = 16.776Å, $b$ = 13.828Å, $c$ = 5.021Å [1]
(Relationship to unit cell of Framework Type: $a'$ = -$c$, $b'$ = $b$, $c'$ = $a$)

**Framework density:**   20.6 T/1000Å$^3$

**Channels:**   [001] **8**  2.4 x 4.7*



*8-ring viewed along [001]*

**References:**
(1)   Araki, T. *Z. Kristallogr.*, **152**, 207-213 (1980)
(2)   Hughes, R.W. and Weller, M.T. *Microporous Mesoporous Mat.*, **51**, 189-196 (2002)
(3)   Marler, B., Camblor, M.A. and Gies, H. *Microporous Mesoporous Mat.*, **90**, 87-101 (2006)