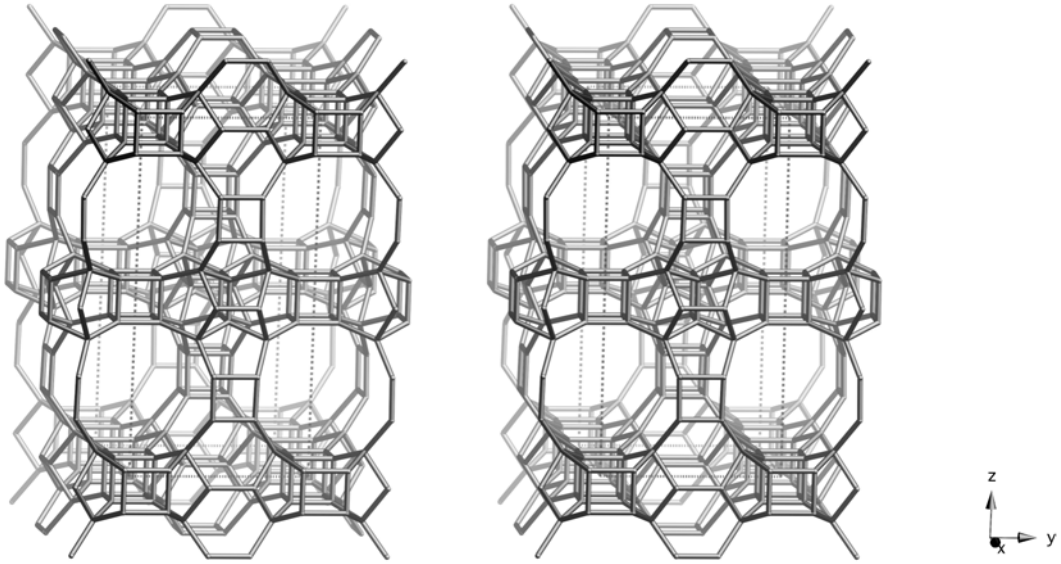
# ISV

## $P4_2/mmc$

Framework Type Data




*framework viewed along [100]*

**Idealized cell data:** tetragonal, $P4_2/mmc$, $a = 12.9$Å, $c = 25.7$Å

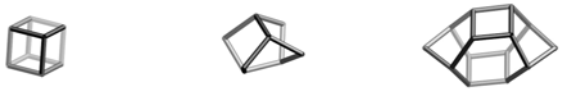
**Coordination sequences and vertex symbols:**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $T_1$ (16,1) | 4 | 12 | 17 | 30 | 48 | 72 | 99 | 128 | 160 | 199 | $5{\cdot}5{\cdot}5_2{\cdot}12_5{\cdot}6{\cdot}6$ |
| $T_2$ (16,1) | 4 | 9 | 18 | 32 | 50 | 71 | 96 | 129 | 167 | 200 | $4{\cdot}5{\cdot}4{\cdot}6{\cdot}4{\cdot}12_7$ |
| $T_3$ (16,1) | 4 | 9 | 18 | 32 | 50 | 72 | 97 | 128 | 167 | 203 | $4{\cdot}5{\cdot}4{\cdot}6{\cdot}4{\cdot}12_4$ |
| $T_4$ (8,*m*) | 4 | 11 | 20 | 28 | 42 | 74 | 110 | 132 | 150 | 195 | $4{\cdot}5_2{\cdot}5{\cdot}6{\cdot}5{\cdot}6$ |
| $T_5$ (8,*m*) | 4 | 11 | 20 | 28 | 41 | 70 | 105 | 131 | 154 | 188 | $4{\cdot}5_2{\cdot}5{\cdot}6{\cdot}5{\cdot}6$ |

**Secondary building units:** 6-2

**Composite building units:**

*d4r* *mor* *mtw*



**Materials with this framework type:**

*ITQ-7[(1)]

[Ge-Si-O]-**ISV**[(2)]

$|(C_{15}H_{29}N)_4F_4|[Si_{64}O_{128}]$-**ISV**[(3)]

$|BCHP|[Si_xAl_yGe_zO_{128}]$-**ISV**[(4)]

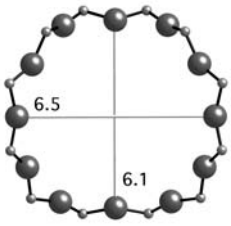
# Type Material: ITQ-7 ISV

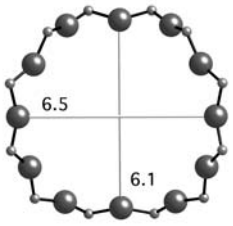
## Type Material Data

**Crystal chemical data:** $[Si_{64}O_{128}]$-**ISV**
tetragonal, $P4_2/mmc$, $a$ = 12.853 Å, $c$ = 25.214Å [1]

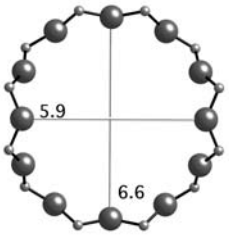
**Framework density:** 15.4 T/1000Å$^3$

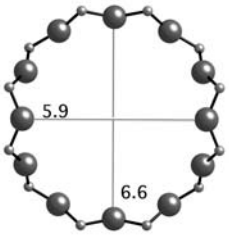
**Channels:** <100> **12** 6.1 x 6.5** ↔ [001] **12** 5.9 x 6.6*




*12-ring viewed along <100>*




*12-ring viewed along [001]*

**References:**

(1) Villaescusa, L.A., Barrett, P.A. and Camblor, M.A. *Angew. Chem., Int. Ed.*, **38**, 1997-2000 (1999)
(2) Blasco, T., Corma, A., DiazCabanas, M.J., Rey, F., VidalMoya, J.A. and ZicovichWilson, C.M. *J. Phys. Chem. B*, **106**, 2634-2642 (2002)
(3) Song, J.Q., Marler, B. and Gies, H. *Compt. Rend. Chimie*, **8**, 341-352 (2005)
(4) Leiva, S., Sabater, M.J., Valencia, S., Sastre, G., Fornes, V., Rey, F. and Corma, A. *Compt. Rend. Chimie*, **8**, 369-378 (2005)