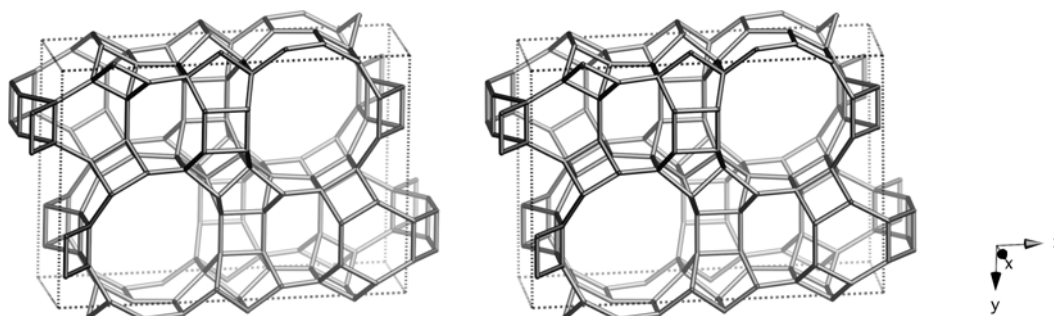


Framework Type Data



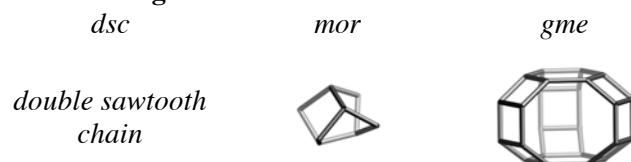
framework viewed along [100]

Idealized cell data: orthorhombic, *Pmmn* (origin choice 2), $a = 7.6\text{\AA}$, $b = 18.1\text{\AA}$, $c = 25.9\text{\AA}$

Coordination sequences and vertex symbols:

| | | | | | | | | | | | | | |
|-------------------------|---|----|----|----|----|----|-----|-----|-----|-----|-----|-----|--|
| T ₁ (8,1) | 4 | 10 | 20 | 35 | 55 | 80 | 108 | 137 | 170 | 214 | 272 | 330 | 4·5·4·5·8·12 |
| T ₂ (8,1) | 4 | 10 | 20 | 36 | 56 | 79 | 106 | 140 | 177 | 222 | 267 | 317 | 4·5·4·5·8·12 |
| T ₃ (8,1) | 4 | 10 | 21 | 37 | 55 | 80 | 111 | 137 | 183 | 232 | 274 | 316 | 4·5·4·5·8·12 |
| T ₄ (8,1) | 4 | 12 | 21 | 36 | 59 | 85 | 108 | 150 | 192 | 231 | 277 | 331 | 5·5·5·5 ₂ ·8·12 |
| T ₅ (8,1) | 4 | 12 | 20 | 36 | 62 | 84 | 112 | 151 | 193 | 229 | 272 | 340 | 5·5·5·5 ₂ ·5·8 |
| T ₆ (4,m..) | 4 | 10 | 21 | 36 | 53 | 77 | 109 | 142 | 175 | 217 | 266 | 315 | 4·8 ₂ ·4·8 ₂ ·5·6 |
| T ₇ (4,m..) | 4 | 10 | 21 | 36 | 54 | 76 | 108 | 142 | 181 | 226 | 258 | 309 | 4·8 ₂ ·4·8 ₂ ·5·6 |
| T ₈ (4,m..) | 4 | 10 | 21 | 37 | 55 | 76 | 103 | 149 | 191 | 218 | 266 | 326 | 4·8 ₂ ·4·8 ₂ ·5·6 |
| T ₉ (4,m..) | 4 | 11 | 24 | 38 | 52 | 82 | 124 | 146 | 182 | 238 | 283 | 325 | 4·5 ₂ ·5·8 ₂ ·5·8 ₂ |
| T ₁₀ (4,m..) | 4 | 11 | 24 | 39 | 57 | 87 | 118 | 149 | 187 | 235 | 282 | 327 | 4·5 ₂ ·5·8·5·8 |

Secondary building units: 5-1

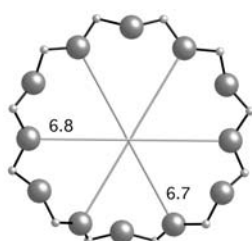
Composite building units:**Materials with this framework type:**

*ECR-1⁽¹⁻³⁾

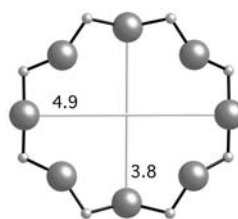
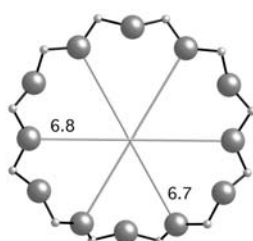
TNU-7⁽⁴⁾

Type Material Data

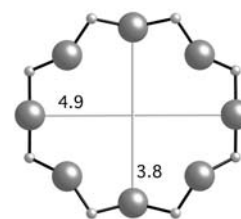
| | |
|-------------------------------|---|
| Crystal chemical data: | $\text{[Na}_x(\text{H}_2\text{O})_y\text{] [Al}_x\text{Si}_{60-x}\text{O}_{120}\text{]-EON}$, $x = 3.6 \dots 11.4$ orthorhombic, $Pmmn$, $a = 7.579\text{\AA}$, $b = 18.089\text{\AA}$, $c = 25.853\text{\AA}$ ⁽⁴⁾ |
| Framework density: | 16.9 T/1000 \AA^3 |
| Channels: | $\{[100] \mathbf{12} \ 6.7 \times 6.8^* \leftrightarrow [010] \mathbf{8} \ \{[001] \ 3.4 \times 4.9 \leftrightarrow [100] \mathbf{8} \ 2.9 \times 2.9\}^* \}^{**}$ (Two independent, 2-dimensional channel systems, each consisting of a 12-ring in the [100] direction and a series of 8-rings with effective diffusion in the [010] direction) |



12-ring viewed along [100]



8-ring viewed along [001]



References:

- (1) Leonowicz, M.E. and Vaughan, D.E.W. *Nature*, **329**, 819-821 (1987)
- (2) Chen, C.S.H., Schlenker, J.L. and Wentzek, S.E. *Zeolites*, **17**, 393-400 (1996)
- (3) Gualtieri, A.F., Ferrari, S., Galli, E., Di Renzo, F. and van Beek, W. *Chem. Mater.*, **18**, 76-84 (2006)
- (4) Warrender, S.J., Wright, P.A. Zhou, W.Z., Lightfoot, P., Cambor, M.A., Shin, C.H., Kim, D.J. and Hong, S.B. *Chem. Mater.*, **17**, 1272-1274 (2005)