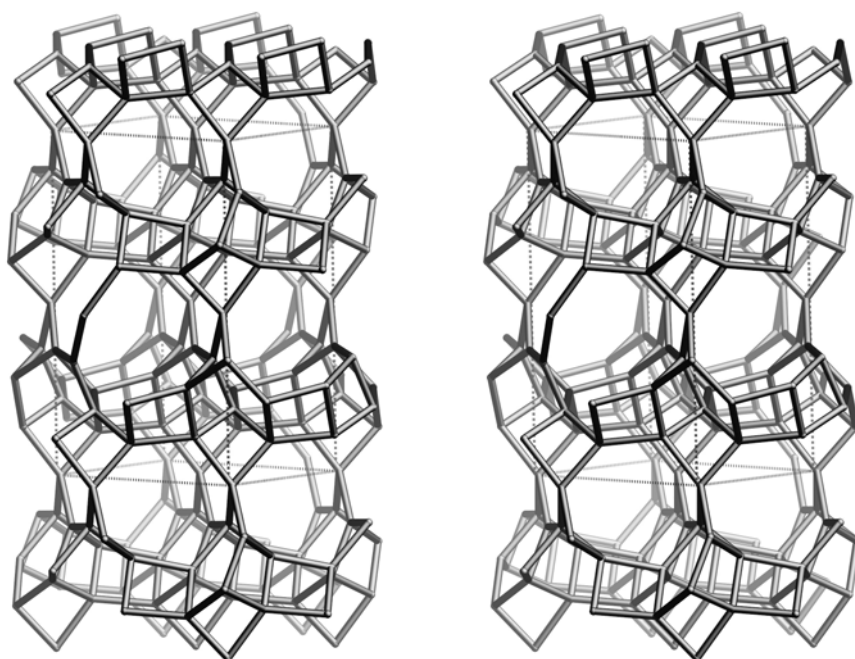


## Framework Type Data



framework viewed along [110]

**Idealized cell data:** orthorhombic, C222<sub>1</sub>,  $a = 8.7\text{\AA}$ ,  $b = 11.0\text{\AA}$ ,  $c = 17.5\text{\AA}$

**Coordination sequences and vertex symbols:**

T <sub>1</sub> (8,1)	4	9	19	36	56	80	102	132	180	220	4·4·4·8 <sub>3</sub> ·6 <sub>2</sub> ·8 <sub>2</sub>
T <sub>2</sub> (8,1)	4	10	20	36	55	77	108	140	174	219	4·4·6·8 <sub>3</sub> ·6 <sub>3</sub> ·8 <sub>2</sub>
T <sub>3</sub> (8,1)	4	9	19	36	56	76	106	142	172	217	4·4·4·8 <sub>2</sub> ·6·8 <sub>2</sub>
T <sub>4</sub> (4,2)	4	10	20	34	58	82	102	136	176	220	4·4·6 <sub>4</sub> ·8 <sub>4</sub> ·8 <sub>2</sub> ·8 <sub>2</sub>
T <sub>5</sub> (4,2)	4	10	20	34	52	78	110	140	176	212	4·4·8 <sub>2</sub> ·10 <sub>6</sub> ·8 <sub>3</sub> ·8 <sub>3</sub>

**Secondary building units:** see *Compendium*

**Materials with this framework type:**

\*Goosecreekite<sup>(1)</sup>

## Type Material: Goosecreekite

## GOO

## Type Material Data

## Crystal chemical data:

$[\text{Ca}_2(\text{H}_2\text{O})_{10}] [\text{Al}_4\text{Si}_{12}\text{O}_{32}]$ -GOO  
monoclinic,  $P2_1$

$a = 7.401 \text{ \AA}$ ,  $b = 17.439 \text{ \AA}$ ,  $c = 7.293 \text{ \AA}$ ,  $\beta = 105.44^\circ$  <sup>(1)</sup>

(Relationship to unit cell of Framework Type:

$a' = a/(2\cos(\beta'/2))$ ,  $b' = c$ ,  $c' = a/(2\cos(\beta'/2))$

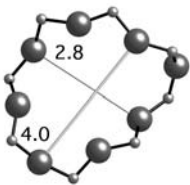
or, as vectors,  $\mathbf{a}' = (\mathbf{a} + \mathbf{b})/2$ ,  $\mathbf{b}' = \mathbf{c}$ ,  $\mathbf{c}' = (\mathbf{a} - \mathbf{b})/2$

## Framework density:

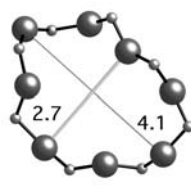
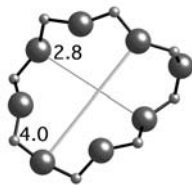
17.6 T/1000 $\text{\AA}^3$

## Channels:

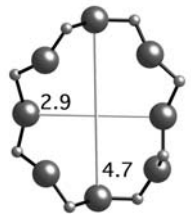
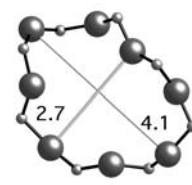
$[100]$  8 2.8 x 4.0\*  $\leftrightarrow$   $[010]$  8 2.7 x 4.1\*  $\leftrightarrow$   $[001]$  8 2.9 x 4.7\*



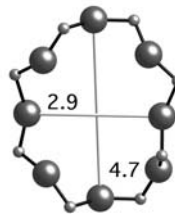
8-ring viewed along  $[100]$



8-ring viewed along  $[010]$



8-ring viewed along  $[001]$



## References:

(1) Rouse, R.C. and Peacor, D.R. *Am. Mineral.*, **71**, 1494-1501 (1986)