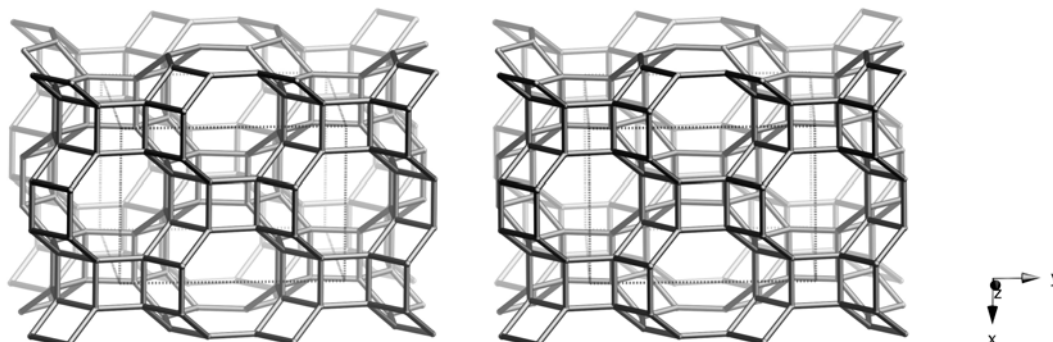


## Framework Type Data



*framework viewed along [001]*

**Idealized cell data:** orthorhombic, *Cmcm*,  $a = 9.9\text{\AA}$ ,  $b = 14.1\text{\AA}$ ,  $c = 14.0\text{\AA}$

**Coordination sequences and vertex symbols:**

$T_1(16,1)$	4	9	18	32	50	71	94	122	157	195	$4\cdot4\cdot4\cdot8_2\cdot8\cdot8$
$T_2(16,1)$	4	9	18	32	48	68	96	126	155	191	$4\cdot4\cdot4\cdot8_2\cdot8\cdot8$

**Secondary building units:** 8 or 4

**Composite building units:**

*dcc*  
*double*  
*crankshaft chain*

**Materials with this framework type:**

\*Phillipsite<sup>(1,2)</sup>  
[Al-Co-P-O]-PHI<sup>(3)</sup>  
DAF-8<sup>(4)</sup>

Harmotome<sup>(2,5)</sup>  
Wellsite<sup>(6)</sup>  
ZK-19<sup>(7)</sup>

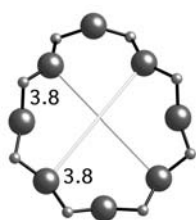
## Type Material: Phillipsite

## Type Material Data

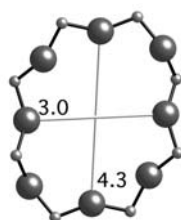
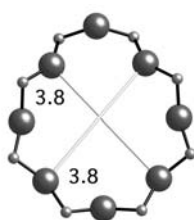
**Crystal chemical data:**  $\text{K}_2(\text{Ca}, \text{Na}_2)_2(\text{H}_2\text{O})_{12}[\text{Al}_6\text{Si}_{10}\text{O}_{32}]$ -PHI  
 monoclinic,  $P2_1/m$   
 $a = 9.865 \text{ \AA}$ ,  $b = 14.300 \text{ \AA}$ ,  $c = 8.668 \text{ \AA}$ ,  $\beta = 124.20^\circ$  (2)  
 (Relationship to unit cell of Framework Type:  
 $a' = a$ ,  $b' = c$ ,  $c' = b/(2\sin(\beta'))$   
 or, as vectors,  $\mathbf{a}' = \mathbf{a}$ ,  $\mathbf{b}' = \mathbf{c}$ ,  $\mathbf{c}' = (\mathbf{b} - \mathbf{a})/2$ )

**Framework density:** 15.8 T/1000 $\text{\AA}^3$

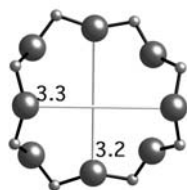
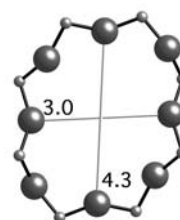
**Channels:** [100] 8 3.8 x 3.8\*  $\leftrightarrow$  [010] 8 3.0 x 4.3\*  $\leftrightarrow$  [001] 8 3.2 x 3.3\*



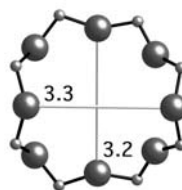
8-ring viewed along [100]



8-ring viewed along [010]



8-ring viewed along [001]



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