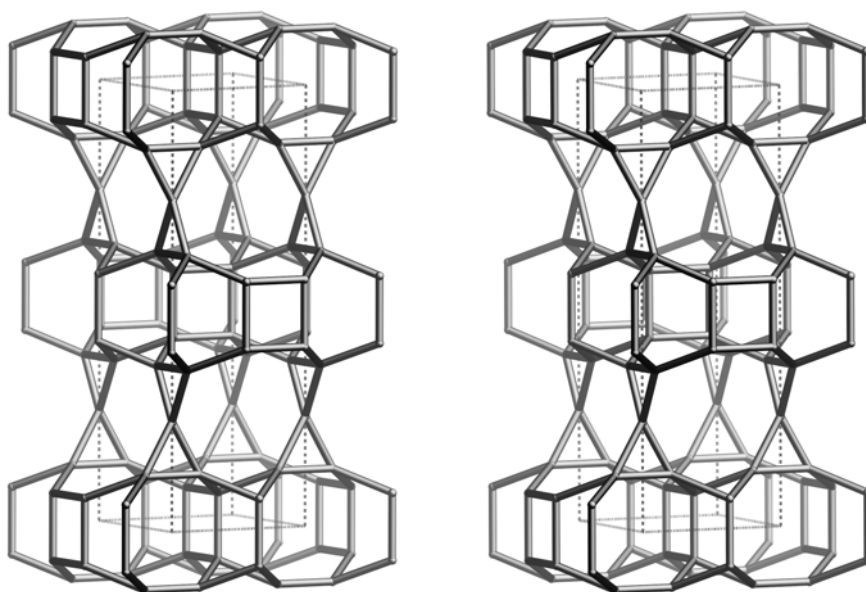


Framework Type Data



framework viewed normal [001]

Idealized cell data: tetragonal, $P4_2/mmc$, $a = 7.2\text{\AA}$, $c = 20.9\text{\AA}$

Coordination sequences and vertex symbols:

| | | | | | | | | | | | |
|---------------------|---|----|----|----|----|----|-----|-----|-----|-----|---|
| $T_1(8,m)$ | 4 | 10 | 21 | 37 | 58 | 87 | 111 | 138 | 187 | 232 | $4\cdot4\cdot6_2\cdot8\cdot6_2\cdot8$ |
| $T_2(8,m)$ | 4 | 9 | 19 | 39 | 55 | 79 | 113 | 149 | 177 | 229 | $3\cdot4\cdot8_3\cdot9_4\cdot8_3\cdot9_4$ |
| $T_3(2, \bar{4}2m)$ | 4 | 8 | 20 | 40 | 54 | 76 | 116 | 144 | 200 | 210 | $3\cdot3\cdot9_4\cdot9_4\cdot9_4\cdot9_4$ |

Secondary building units: see *Compendium*

Composite building units:

lov



vsv



Materials with this framework type:

*Lovdarite^(1,2)

Synthetic lovdarite⁽³⁾

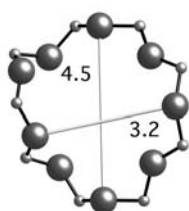
Type Material: Lovdarite

Type Material Data

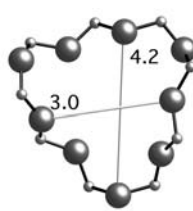
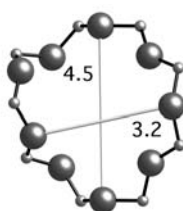
Crystal chemical data: $[\text{K}_4\text{Na}_{12}(\text{H}_2\text{O})_{18}][\text{Be}_8\text{Si}_{28}\text{O}_{72}]$ -LOV
orthorhombic, $Pma2$, $a = 39.576\text{\AA}$, $b = 6.931\text{\AA}$, $c = 7.153\text{\AA}$ ⁽²⁾
(Relationship to unit cell of Framework Type: $a' = 2c$, $b' = c' = a$)

Framework density: $18.3 \text{ T}/1000\text{\AA}^3$

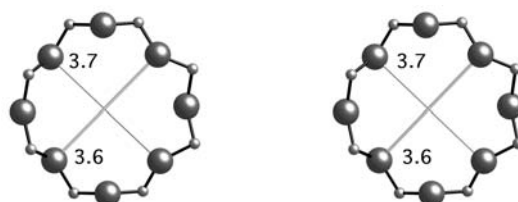
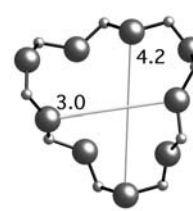
Channels: $[010] \text{ 9 } 3.2 \times 4.5^* \leftrightarrow [001] \text{ 9 } 3.0 \times 4.2^* \leftrightarrow [100] \text{ 8 } 3.6 \times 3.7^*$



9-ring viewed along [010]



9-ring viewed along [001]



8-ring viewed along [100]

References:

- (1) Merlino, S. *Acta Crystallogr. (Suppl.)*, **A37**, C189 (1981)
- (2) Merlino, S. *Eur. J. Mineral.*, **2**, 809-817 (1990)
- (3) Ueda, S., Koizumi, M., Baerlocher, Ch., McCusker, L.B. and Meier, W.M. *Preprints of Poster Papers, 7th Int. Zeolite Conf.*, pp. 23-24 (1986)