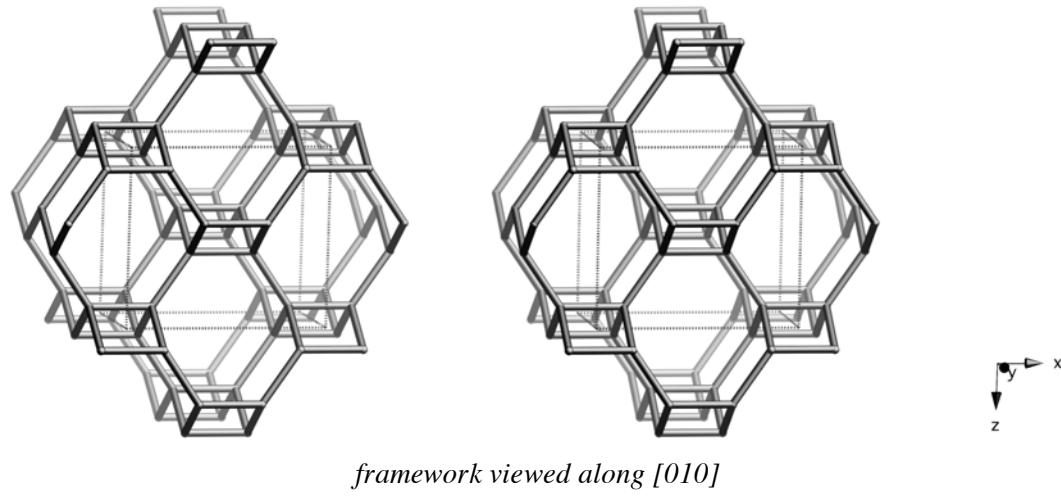


ABW

Imma

Framework Type Data



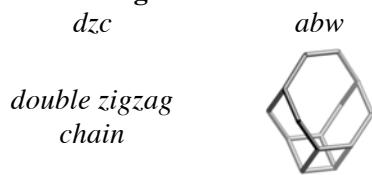
Idealized cell data: orthorhombic, *Imma*, $a = 9.9\text{\AA}$, $b = 5.3\text{\AA}$, $c = 8.8\text{\AA}$

Coordination sequences and vertex symbols:

T ₁ (8, <i>m</i>)	4	10	21	36	54	78	106	136	173	214	4·6·4·6·8 ₂
-------------------------------	---	----	----	----	----	----	-----	-----	-----	-----	------------------------

Secondary building units: 8 or 4

Composite building units:



Materials with this framework type:

*Li-A (Barrer and White) ⁽¹⁻³⁾	I(NH ₄)-I[Zn-P-O]-ABW ⁽¹²⁾	I[Na-I][Zn-P-O]-ABW ⁽²¹⁾
[Be-As-O]-ABW ^(4,5)	I[Cs-I][Mg-P-O]-ABW ⁽¹³⁾	I[Na-I][Co-P-O]-ABW ⁽²²⁾
[Be-P-O]-ABW ^(4,6,7)	I[Cs-I][Al-Si-O]-ABW ^(14,15)	I[Rb-I][Cu-P-O]-ABW ⁽²³⁾
[Ga-Si-O]-ABW ⁽⁸⁾	I[Cs-I][Al-Ti-O]-ABW ⁽¹⁶⁾	I[Rb-I][Ni-P-O]-ABW ⁽²⁴⁾
[Zn-As-O]-ABW ^(4,9)	I[Li-I][Zn-As-O]-ABW ⁽¹⁷⁾	I[Rb-I][Co-P-O]-ABW ⁽¹³⁾
[Zn-P-O]-ABW ⁽⁴⁾	I[Li-I][Al-Si-O]-ABW ⁽¹⁸⁾	I[Rb-I][Al-Si-O]-ABW ^(14,15)
I(NH ₄)-I[Co-P-O]-ABW ⁽¹⁰⁾	I[Li-I][Zn-P-O]-ABW ⁽¹⁹⁾	I[Tl-I][Al-Si-O]-ABW ⁽²⁵⁾
I(NH ₄)-I[Zn-As-O]-ABW ⁽¹¹⁾	I[Li-I][Al-Ge-O]-ABW ⁽²⁰⁾	UCSB-3 ⁽²⁶⁾

ABW**Type Material: Li-A (Barrer and White)****Type Material Data****Crystal chemical data:**

$\text{ILi}_4(\text{H}_2\text{O})_4[\text{Al}_4\text{Si}_4\text{O}_{16}]$ -ABW

orthorhombic, $Pna2_1$, $a = 10.31\text{\AA}$, $b = 8.18\text{\AA}$, $c = 5.00\text{\AA}$ ⁽²⁾

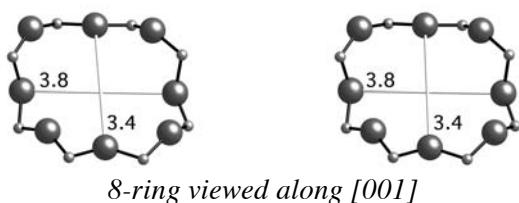
(Relationship to unit cell of Framework Type: $a' = a$, $b' = c$, $c' = b$)

Framework density:

19 T/1000 \AA^3

Channels:

[001] **8** 3.4 x 3.8*

**References:**

- (1) Barrer, R.M. and White, E.A.D. *J. Chem. Soc.*, 1267-1278 (1951)
- (2) Kerr, I.S. *Z. Kristallogr.*, **139**, 186-195 (1974)
- (3) Krogh Andersen, E. and Ploug-Sørensen, G. *Z. Kristallogr.*, **176**, 67-73 (1986)
- (4) Gier, T.E. and Stucky, G.D. *Nature*, **349**, 508-510 (1991)
- (5) Harrison, W.T.A., Gier, T.E. and Stucky, G.D. *Acta Crystallogr.*, **C51**, 181-183 (1995)
- (6) Robl, C. and Gobner, V. *J. Chem. Soc., Dalton Trans.*, 1911-1912 (1993)
- (7) Zhang, H., Chen, M., Shi, Z., Bu, X., Zhou, Y., Xu, X. and Zhao, D. *Chem. Mater.*, **13**, 2042-2048 (2001)
- (8) Newsam, J.M. *J. Phys. Chem.*, **92**, 445-452 (1988)
- (9) Feng, P., Zhang, T. and Bu, X. *J. Am. Chem. Soc.*, **123**, 8608-8609 (2001)
- (10) Feng, P., Bu, X., Tolbert, S.H. and Stucky, G.D. *J. Am. Chem. Soc.*, **119**, 2497-2504 (1997)
- (11) Johnson, C.D., Macphee, D.E. and Feldmann, J. *Inorg. Chem.*, **41**, 3588-3589 (2002)
- (12) Bu, X., Feng, P., Gier, T.E. and Stucky, G.D. *Zeolites*, **19**, 200-208 (1997)
- (13) Rakotomahanina Ralaisoa, E.L. *Ph.D. Thesis, Univ. Grenoble* (1972)
- (14) Klaska, R. and Jarchow, O. *Naturwiss.*, **60**, 299 (1973)
- (15) Klaska, R. and Jarchow, O. *Z. Kristallogr.*, **142**, 225-238 (1975)
- (16) Gatehouse, B.M. *Acta Crystallogr.*, **C45**, 1674-1677 (1989)
- (17) Jensen, T.R., Norby, P., Christensen, A.N. and Hanson, J.C. *Microporous Mesoporous Mat.*, **26**, 77-87 (1998)
- (18) Ghobarkar, H. *Cryst. Res. Technol.*, **27**, 1071-1075 (1992)
- (19) Harrison, W.T.A., Gier, T.E., Nicol, J.M. and Stucky, G.D. *J. Solid State Chem.*, **114**, 249-257 (1995)
- (20) Tripathi, A., Kim, S.J., Johnson, G.M. and Parise, J.B. *Microporous Mesoporous Mat.*, **34**, 273-279 (2000)
- (21) Ng, H.Y. and Harrison, W.T.A. *Microporous Mesoporous Mat.*, **23**, 197-202 (1998)
- (22) Chippindale, A.M., Cowley, A.R., Chen, J.S., Gao, Q. and Xu, R. *Acta Crystallogr.*, **C55**, 845-847 (1999)
- (23) Henry, P.F., Hughes, R.W., Ward, S.C. and Weller, M.T. *Chem. Commun.*, 1959-1960 (2000)
- (24) Henry, P.F., Weller, M.T. and Hughes, R.W. *Inorg. Chem.*, **39**, 5420-5421 (2000)
- (25) Krogh Andersen, I.G., Krogh Andersen, E., Norby, P., Colella, C. and Degennaro, M. *Zeolites*, **11**, 149-154 (1991)
- (26) Bu, X., Feng, P., Gier, T.E. and Stucky, G.D. *J. Solid State Chem.*, **136**, 210-215 (1998)