

Building scheme for SFS



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1. Periodic Building Unit

Monoclinic SFS can be built using units of 14 T atoms (one in bold in Figure 1). The T14-unit consists of two 5-2 units. T14-units, related along a by centres of symmetry, form a chain along a . Chains, related along b by a 2-fold screw axis parallel to b , are connected into the Periodic Building Unit (PerBU). The PerBU equals the ab layer shown in Figure 1.

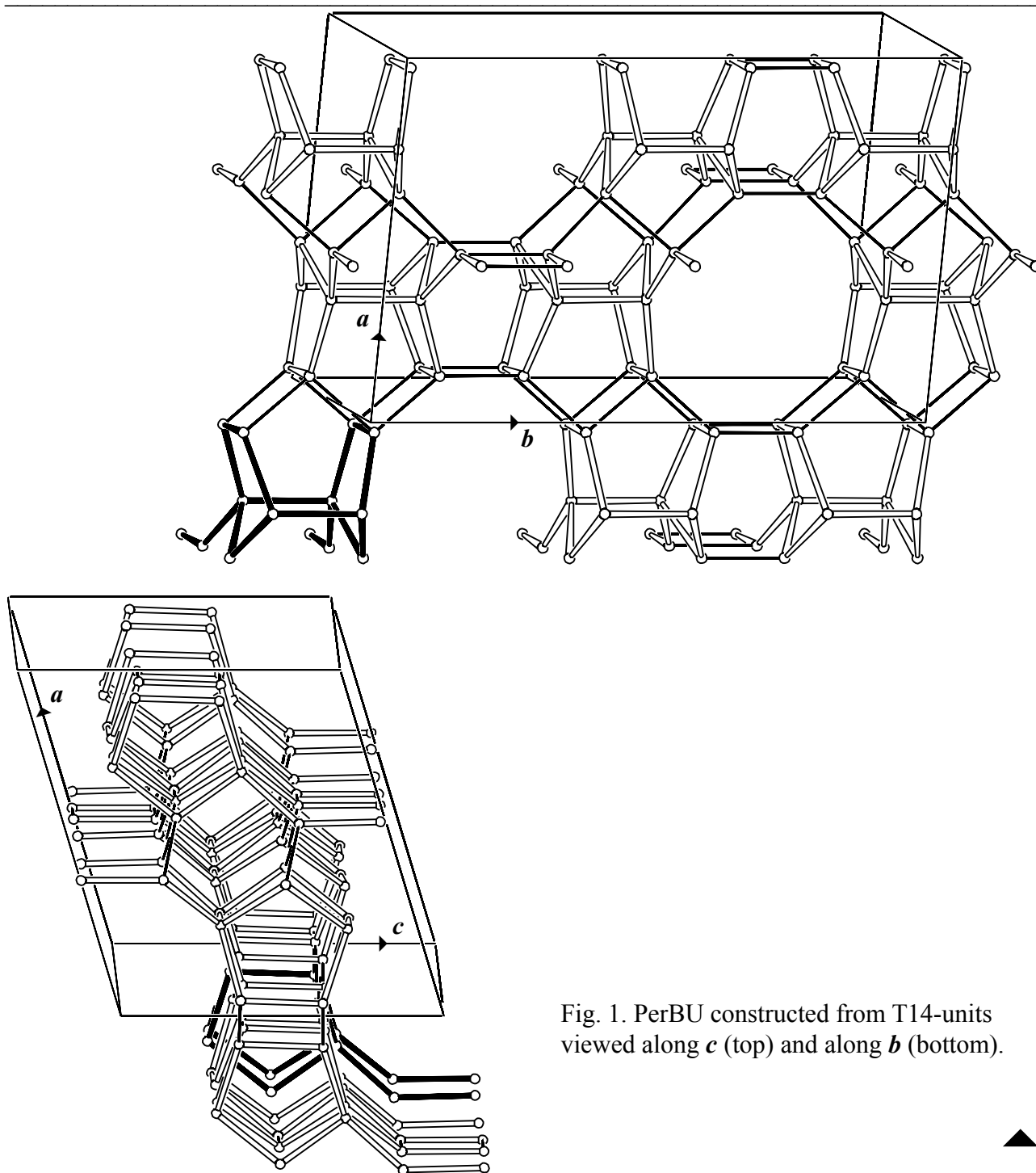


Fig. 1. PerBU constructed from T14-units viewed along c (top) and along b (bottom).



2. Connection mode

Neighboring PerBUs, related by a pure translation along c , are connected along c through 5-rings (and 10- and 12-rings) as shown in Figure 2.

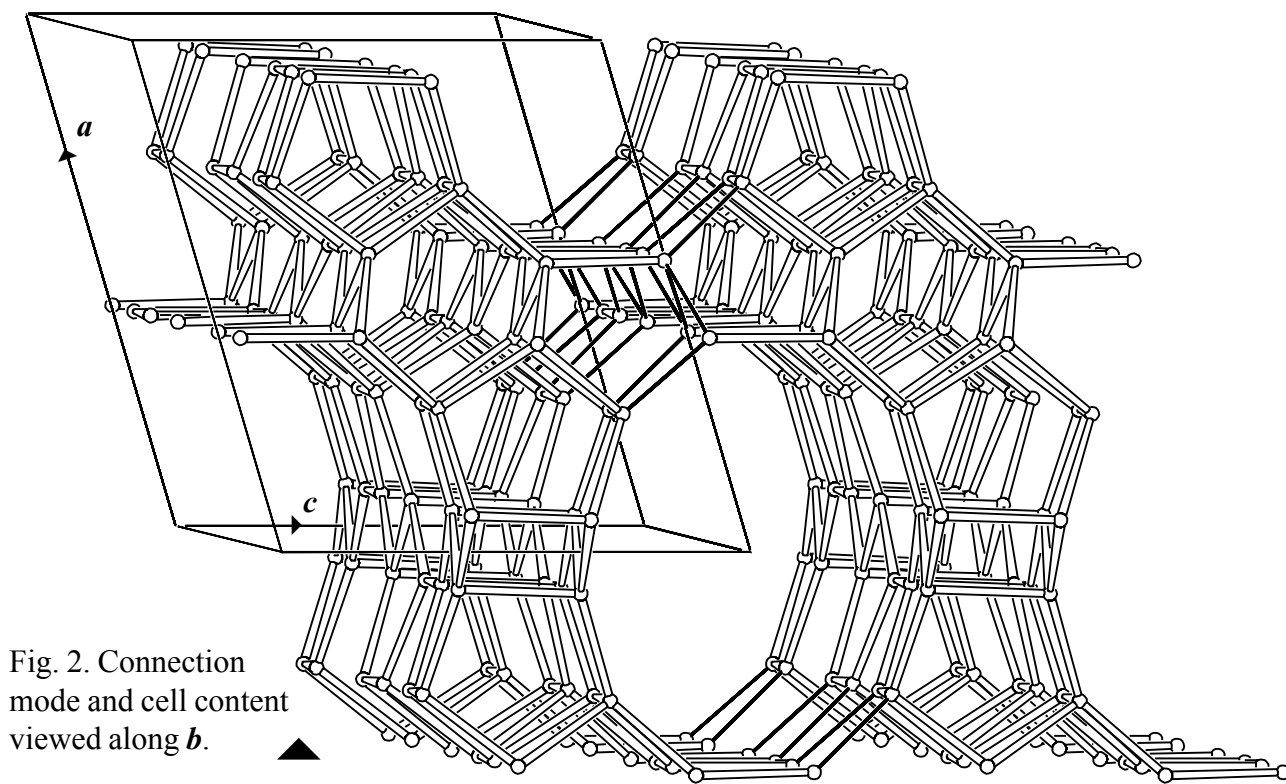


Fig. 2. Connection mode and cell content viewed along b .

3. Channels and/or cages

Interconnecting 10-ring channels, parallel to c , intersect interconnecting 12-ring channels parallel to b . Channel intersection and channels are shown in Figure 3. The **pore descriptor** is added.

10-Ring channel: $\{1 [4^4 5^6 6^4 16^1 10^{2/2}] [001] (10\text{-ring})\}$

Channel intersection: $\{2 [4^1 5^2 6^3 10^2 12^2] [010] (12\text{-ring}), [001] (10\text{-ring})\}$

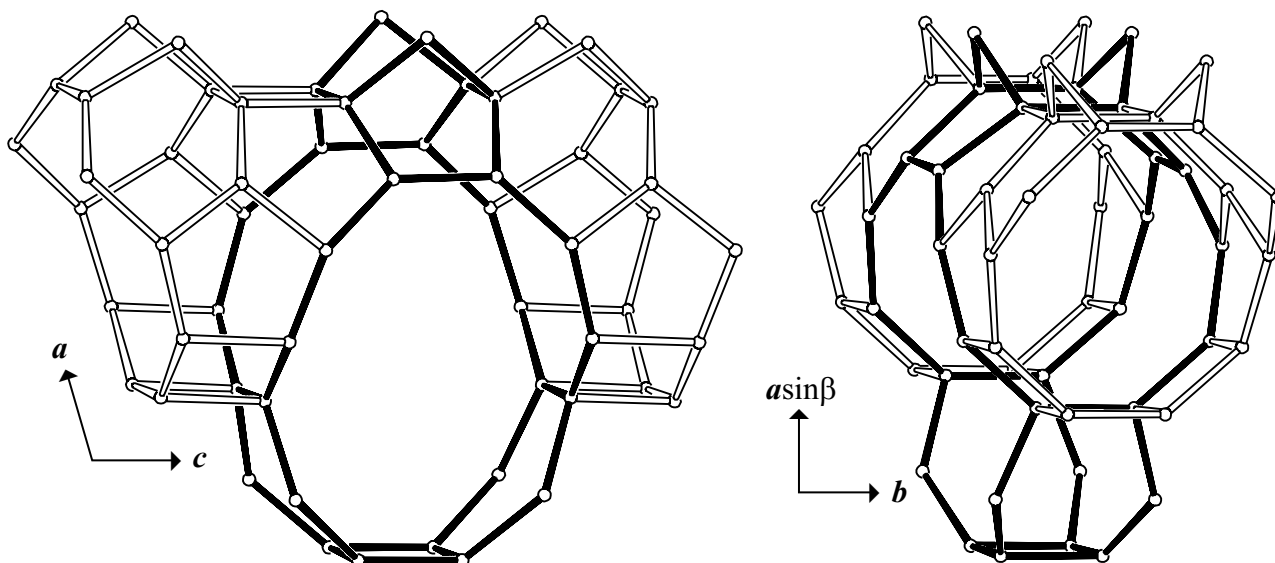


Fig. 3a. 10-Ring channel viewed along b (left) and along c (right). Channel intersection in bold.

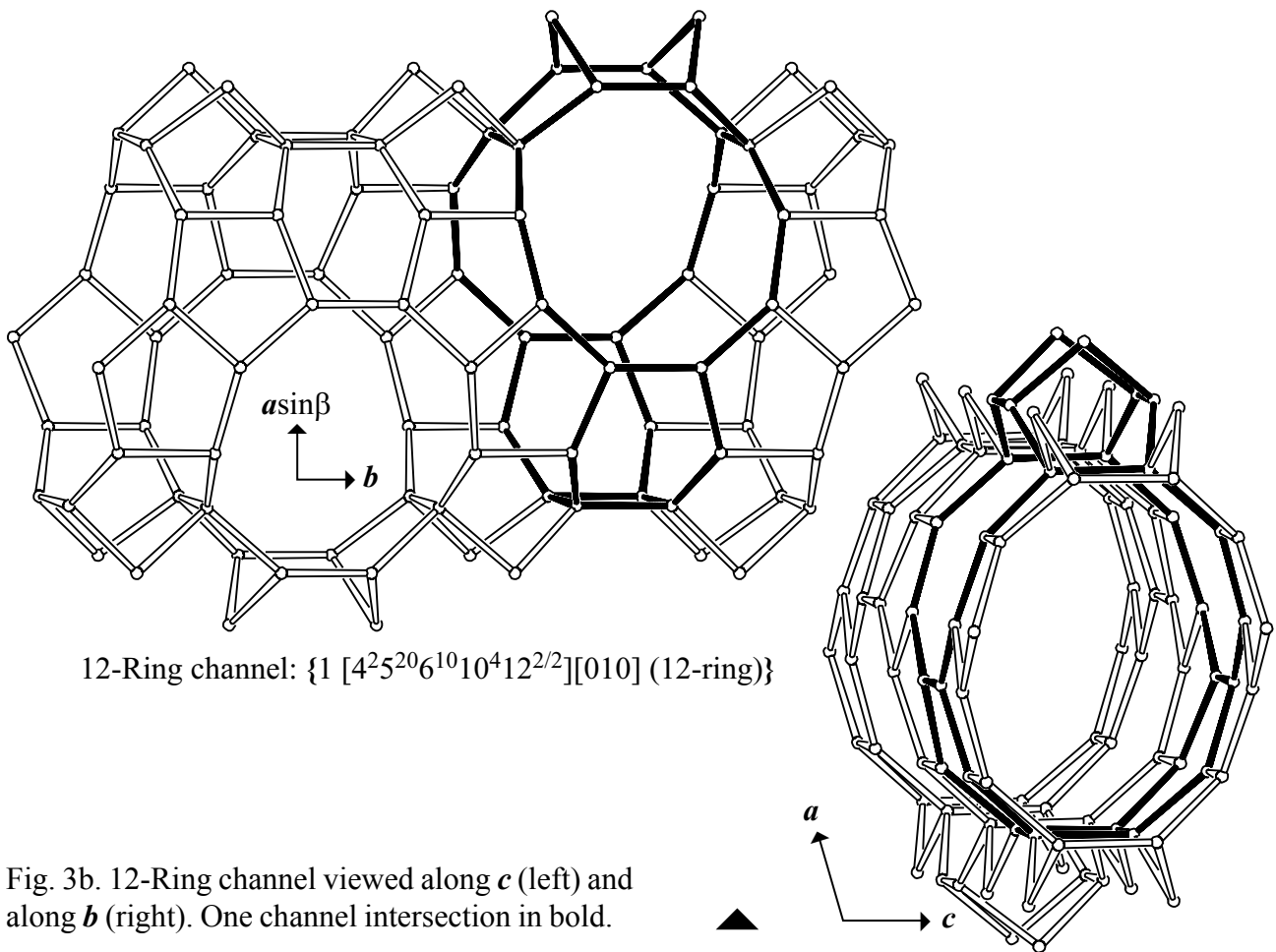


Fig. 3b. 12-Ring channel viewed along c (left) and along b (right). One channel intersection in bold.

4. Composite Building Units

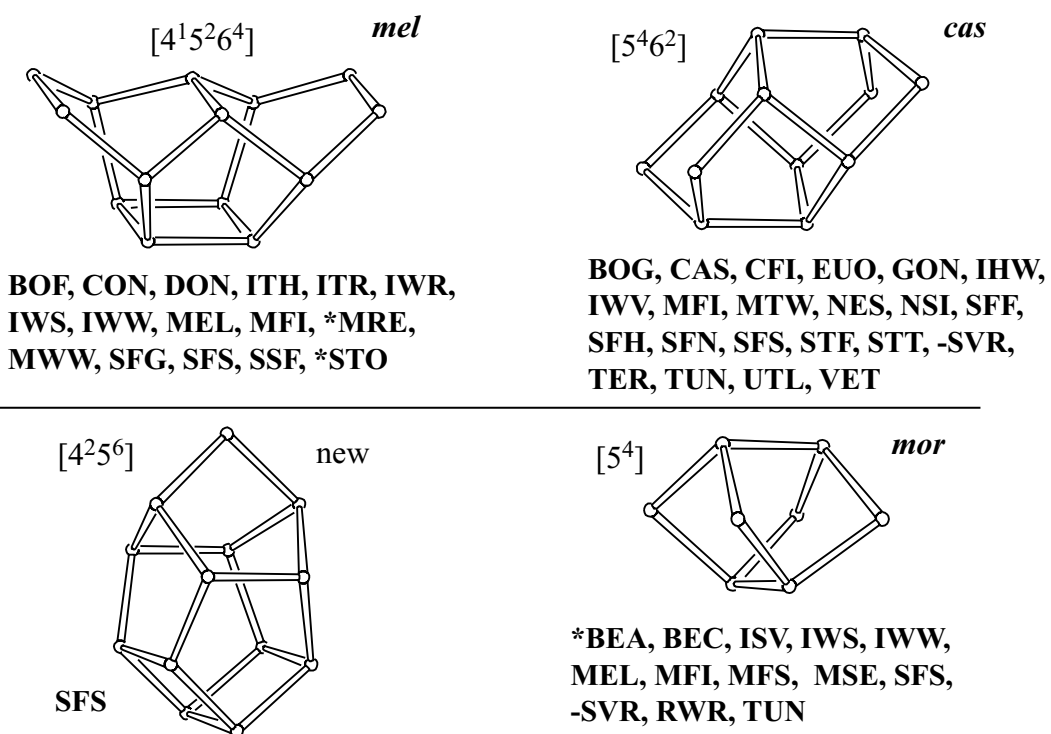


Fig. 4. Composite Building Units.

5. Supplementary information

Other framework types containing (modified) 5-rings

5-Rings can be connected in several other ways. In all cases additional T atoms are needed to build the framework.

In the [INTRO](#)-pages links are given to a detailed description of a sub-set of framework types that contain (modified) 5-rings (choose: **5-Rings**). There is also a link provided to a summary of the PerBUs used in the building schemes of these framework types (choose: **Appendix; Figure 6**).

