

Building scheme for UOZ



1. Periodic Building Unit – 2. Connection mode – 3. Projections of the unit cell content
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1. Periodic Building Unit:

Tetragonal **UOZ** can be built using the T20-unit consisting of two double 4-rings with two "dangling" T atoms (or four 4-1 units; bold in Figure 1). Neighboring T20-units, related along a by a pure translation and along c by (approximately) a 2-fold screw axis parallel to c , are connected along a , and c through distorted (fused) 6-rings as shown in the drawing of the Periodic Building Unit (PerBU) in Figure 1. [Compare this PerBU with those in **AST** and **ASV**].

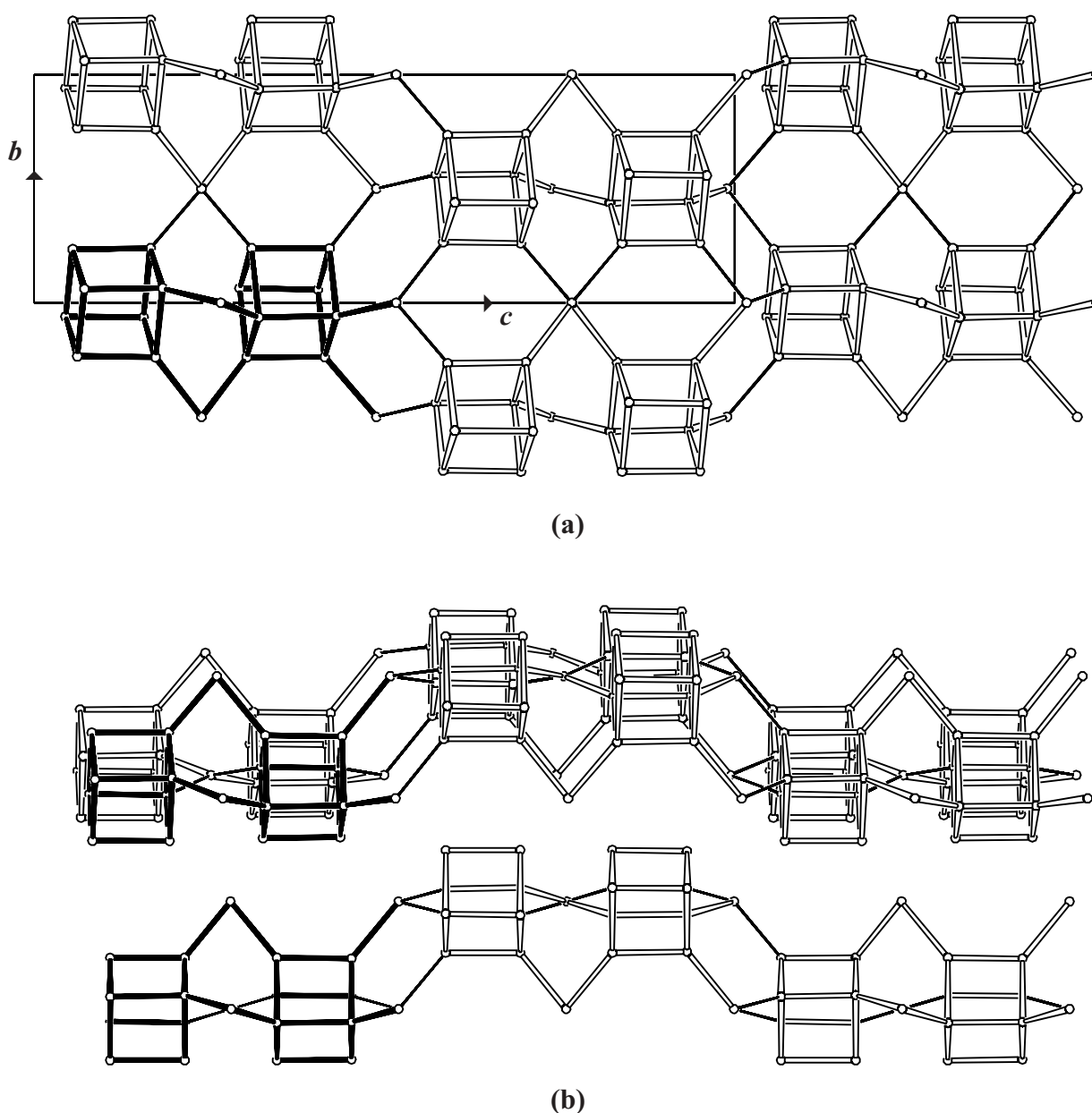


Figure 1. (a): PerBU constructed from T20-units; (b): Perspective view (top) and parallel projection of the PerBU down b .



2. Connection mode:

Neighboring PerBUs, related by a pure translation along a , are connected along a by (fused) 6-rings. The connection of the units within the ac and bc layer is identical. [Compare Figs.1 and 2].

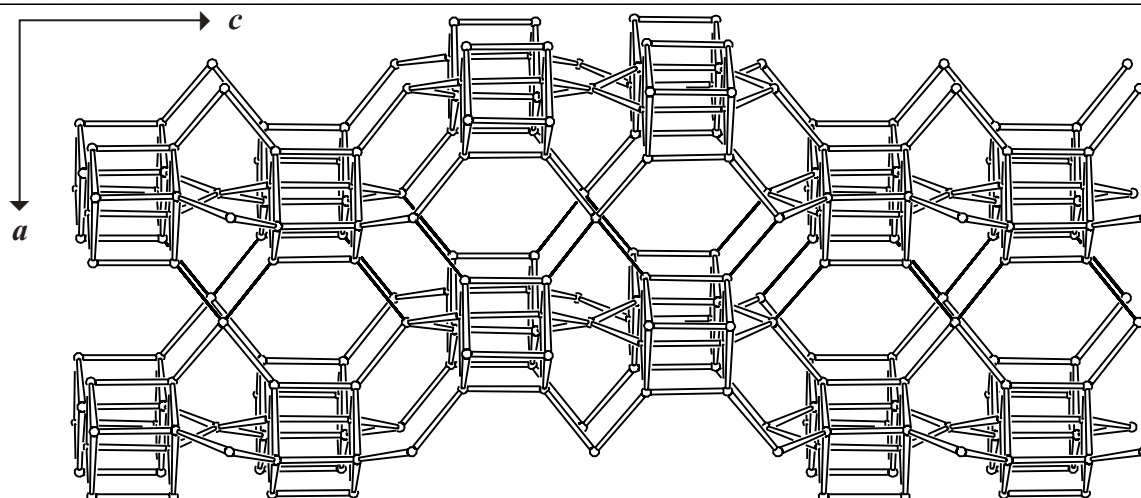


Figure 2. Connection mode viewed along b .



3. Projections of the unit cell content:

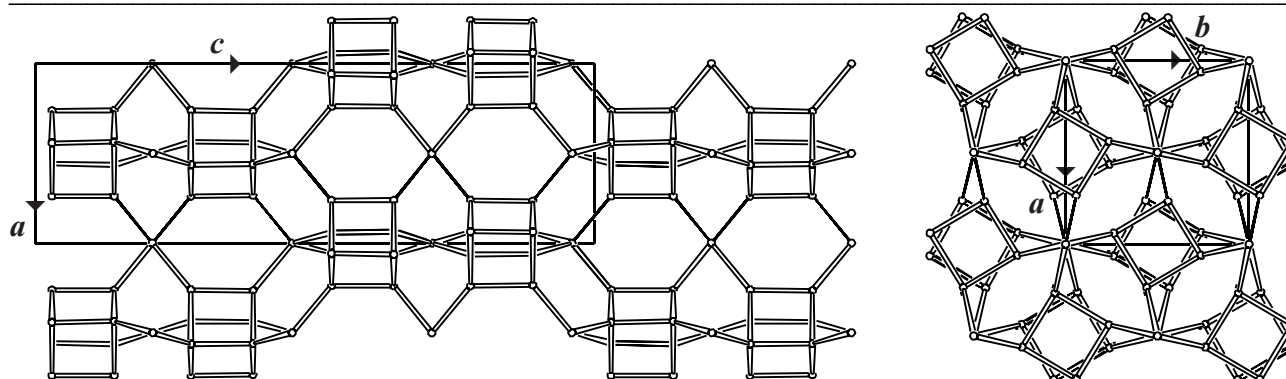


Figure 3. Unit cell content in UOZ projected along b (left), and along c (right).



4. Channels and/or cages:

Pore descriptor and cage in UOZ, composed of (fused) 4- and 6-rings only, is depicted in Figure 4.

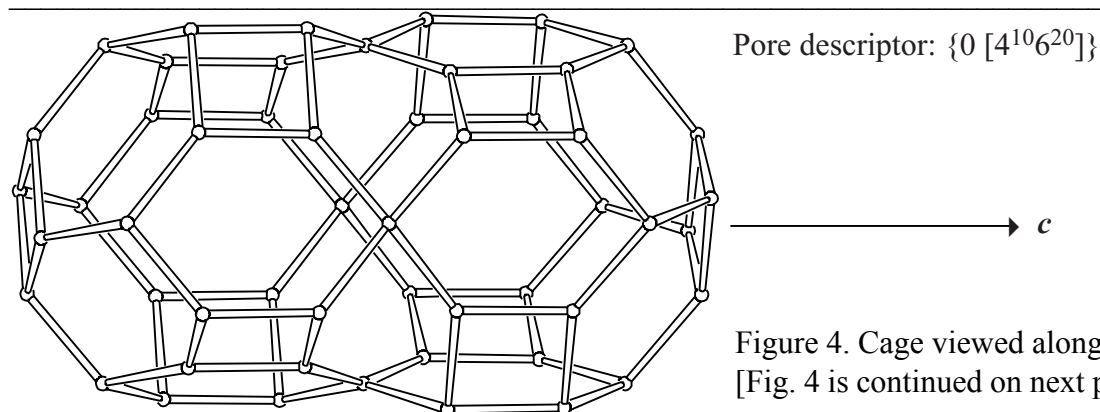


Figure 4. Cage viewed along b (or along a).
[Fig. 4 is continued on next page]

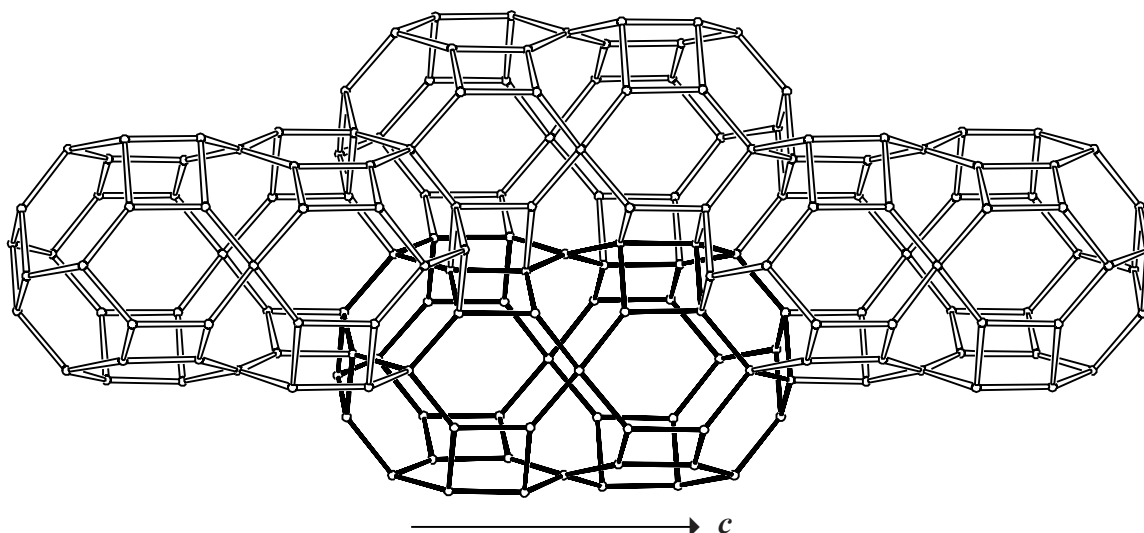


Figure 4 [Cont'd]. Fusion of cages along c , and a (or b) viewed along b (or a). ▲

5. Supplementary information:

Other framework types containing (modified) double 4-rings (D4Rs)

Double 4-rings (D4Rs) can be connected in several other ways. In some cases the 4-rings of the D4Rs are not 4-fold connected and/or 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) D4Rs (choose **Double 4-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 5**). ▲