

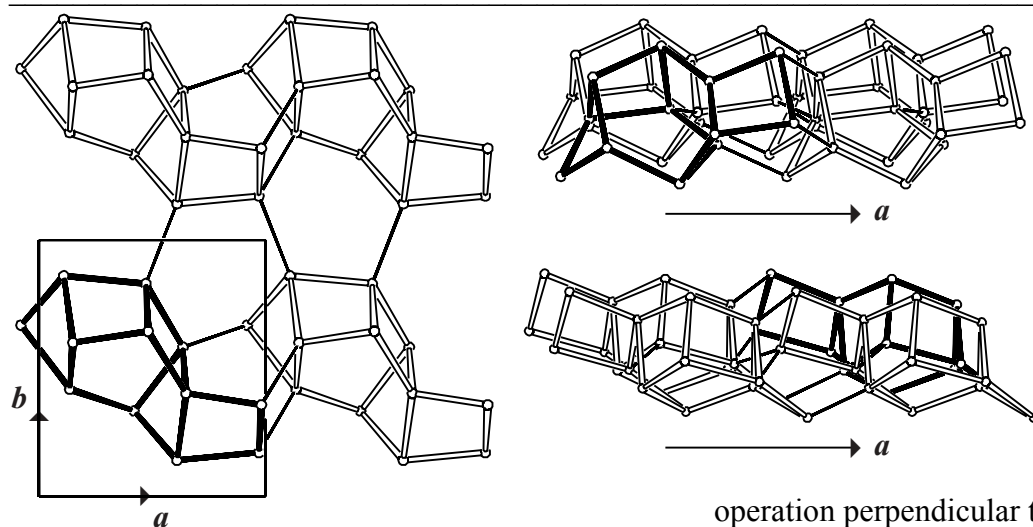
Building scheme for PON



1. Periodic Building Unit – 2. Connection mode – 3. Projections of the unit cell content
4. Channels and/or cages – 5. Supplementary information

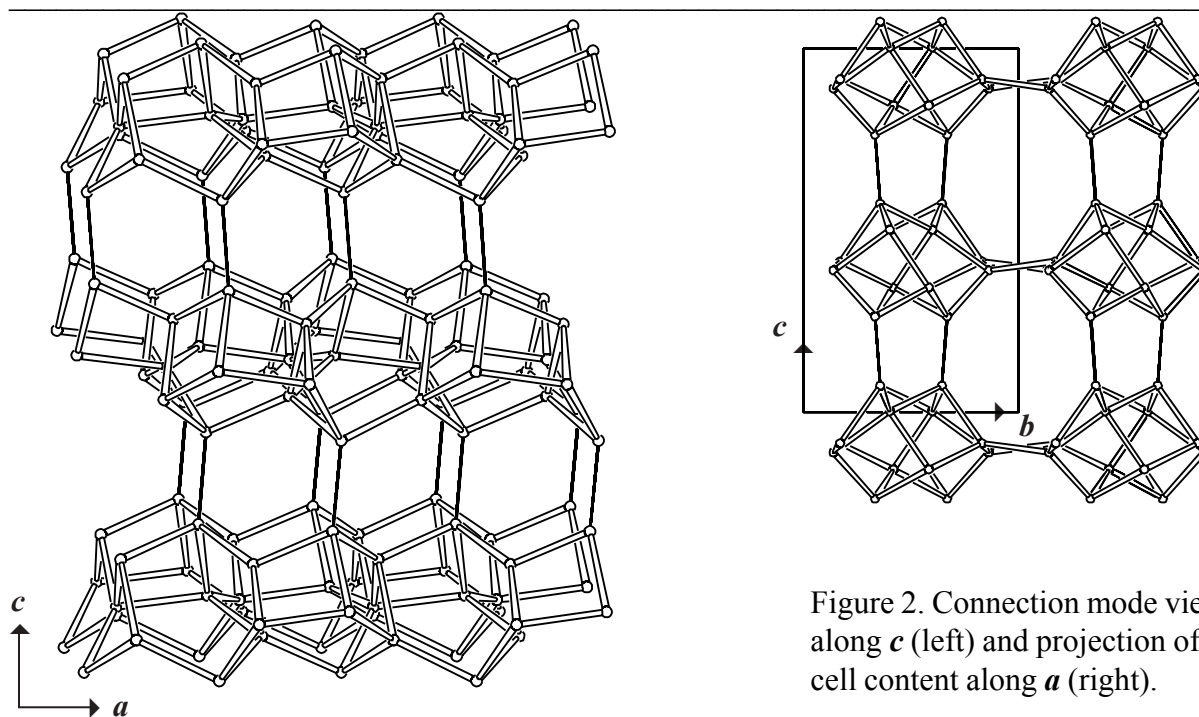
1. Periodic Building Unit:

PON can be built using units of 12 T atoms. The T12-unit (bold in Figure 1) consists of five fused 4-rings (or two 4-2 units). A two-dimensional Periodic Building Unit (PerBU) is obtained when T12-units, related by pure translations along a , and b , are connected into the ab layer shown in Figure 1.



2. Connection mode:

Neighboring PerBUs, related by a rotation of 180° about c , are connected along c through 6- and 10-rings as depicted in Figure 2.



3. Projections of the unit cell content: See Figure 2. ▲

4. Channels and/or cages:

The cavity in **PON** is shown in Figure 4(a). The **pore descriptor** is added. 10-Ring channels parallel to [100] are formed when cavities are linked along **a** as illustrated in Figure 4(b).

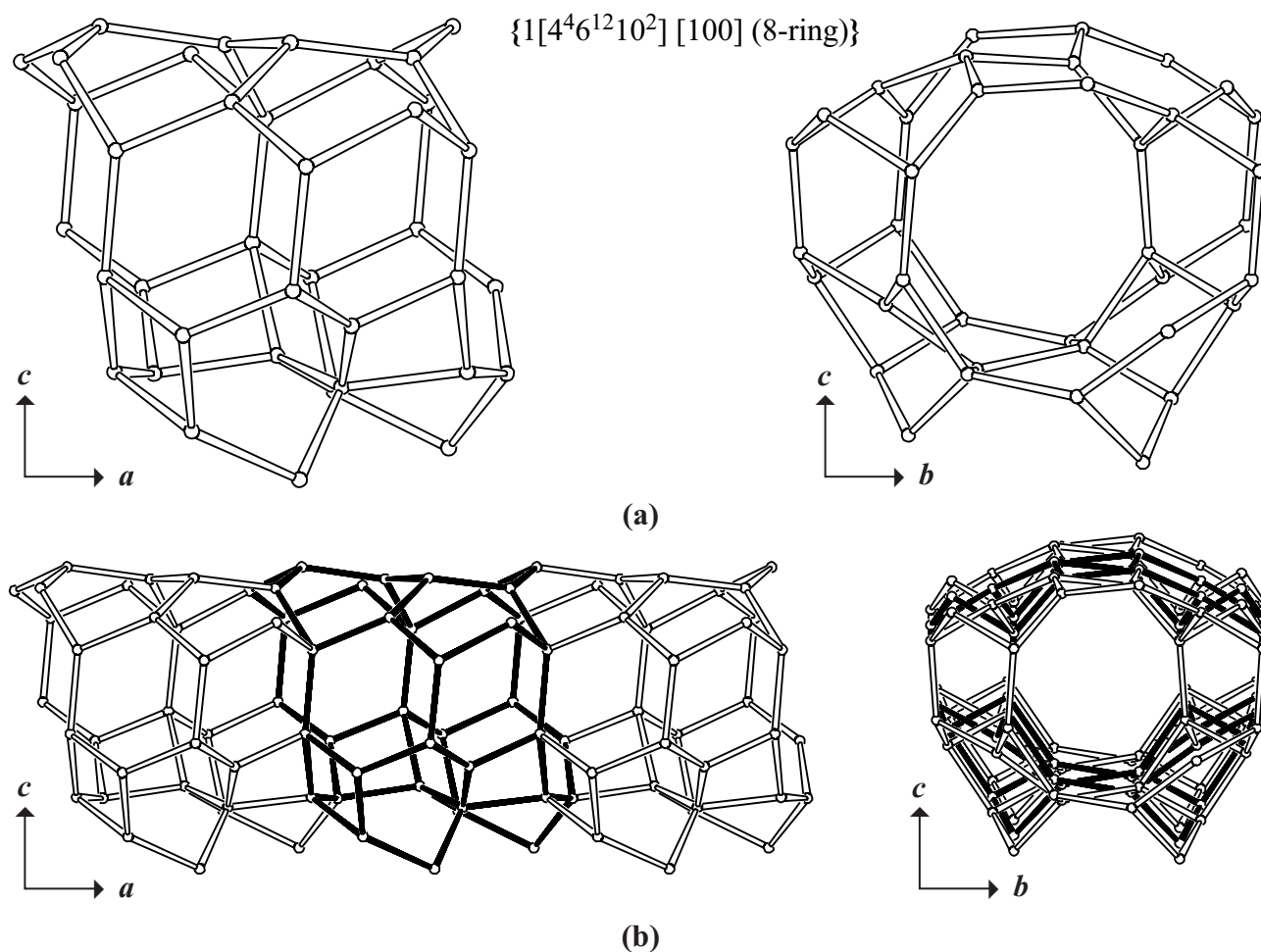


Figure 4. (a): Cavity viewed along **b** (left) and along **a** (right); (b): Fusion of cavities along **a** viewed perpendicular to the 10-ring channel axis parallel to **a** (left) and along the 10-ring channel axis (right). ▲

5. Supplementary information:

Other framework types containing (modified) single 3- and/or 4-rings

Single 3- and/or 4-rings can be connected in several other ways. In several 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) single 3- and/or 4-rings (choose: **Single 3- and/or 4-rings**). There is also a link to a summary of the Periodic Building Units used in the building schemes of these framework types (choose: **Appendix; Figure 4**). ▲