Building scheme for NON

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

NON can be built using building units composed of 11 T atoms: three finite zigzag chains (3 T atoms each and parallel to ***b***) and a T2-dimer (Figure 1(left)), or a 5-ring and a 6-ring (Figure 1(right)) [See: **Alternative description**; Compare this building unit with those in **BIK**, **CAS** and **NSI**]. The two-dimensional Periodic Building Unit (PerBU) is obtained when T11-units, related along ***c*** by a 2-fold screw axis parallel to ***c*** and related along ***a*** by a 2-fold axis parallel to ***b***, are connected into the ***ac*** layer shown in Figure 2. [Compare this PerBU with those in **EUO** and **NES**]

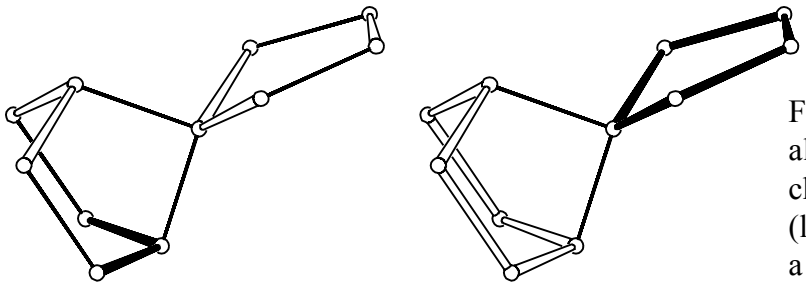

Figure 1. Finite building unit, viewed along ***b***, built from three (finite) zigzag chains (one in bold) and a T2-dimer (left) and finite building unit built from a 5-ring (in bold) and a 6-ring (right).

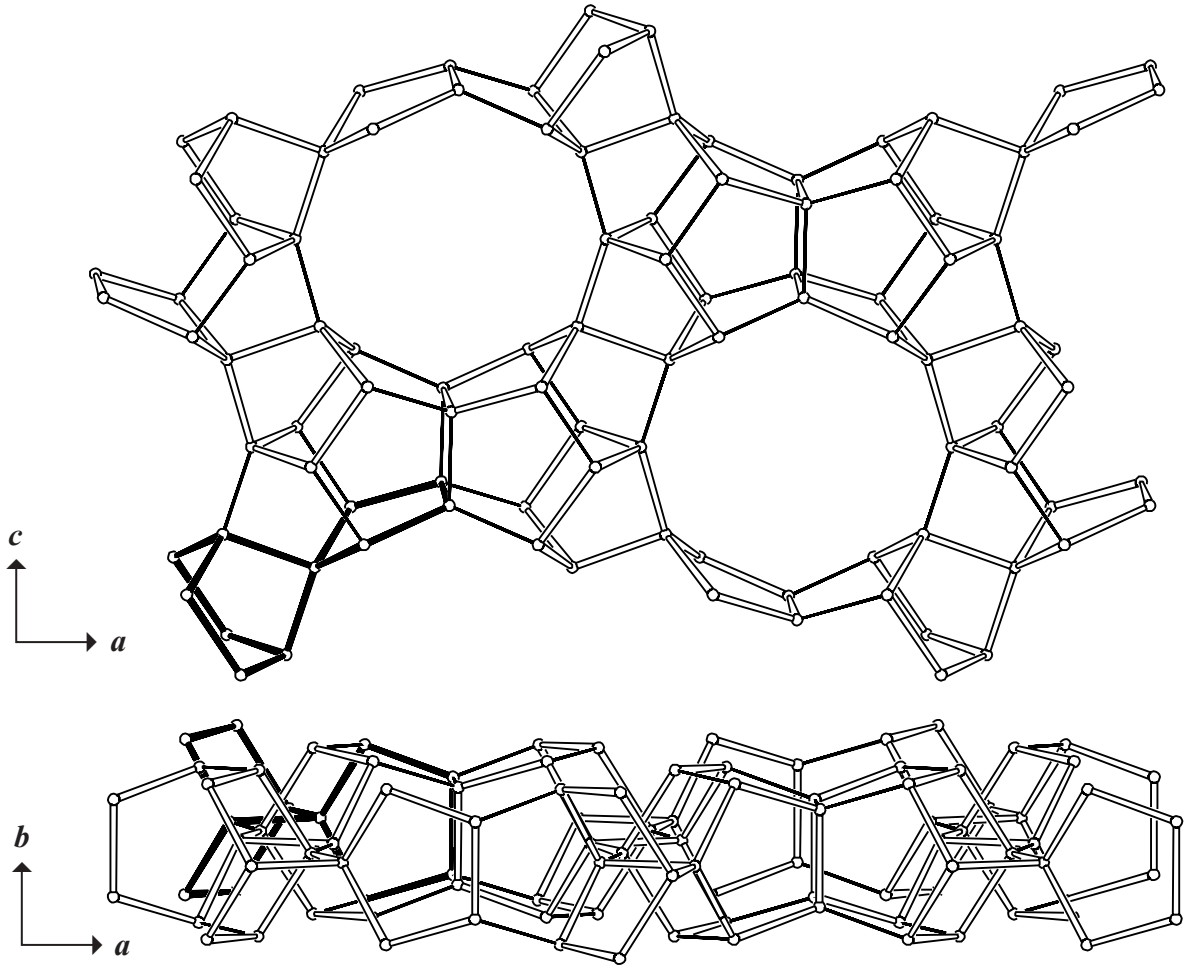

Figure 2. PerBU viewed along ***b*** (top), and along ***c*** (bottom). One T11-unit in bold.

2. Connection mode:

Neighboring PerBUs, related by a shift of ½***a*** (or ½***c***), are connected along ***b*** as shown in Figure 3.

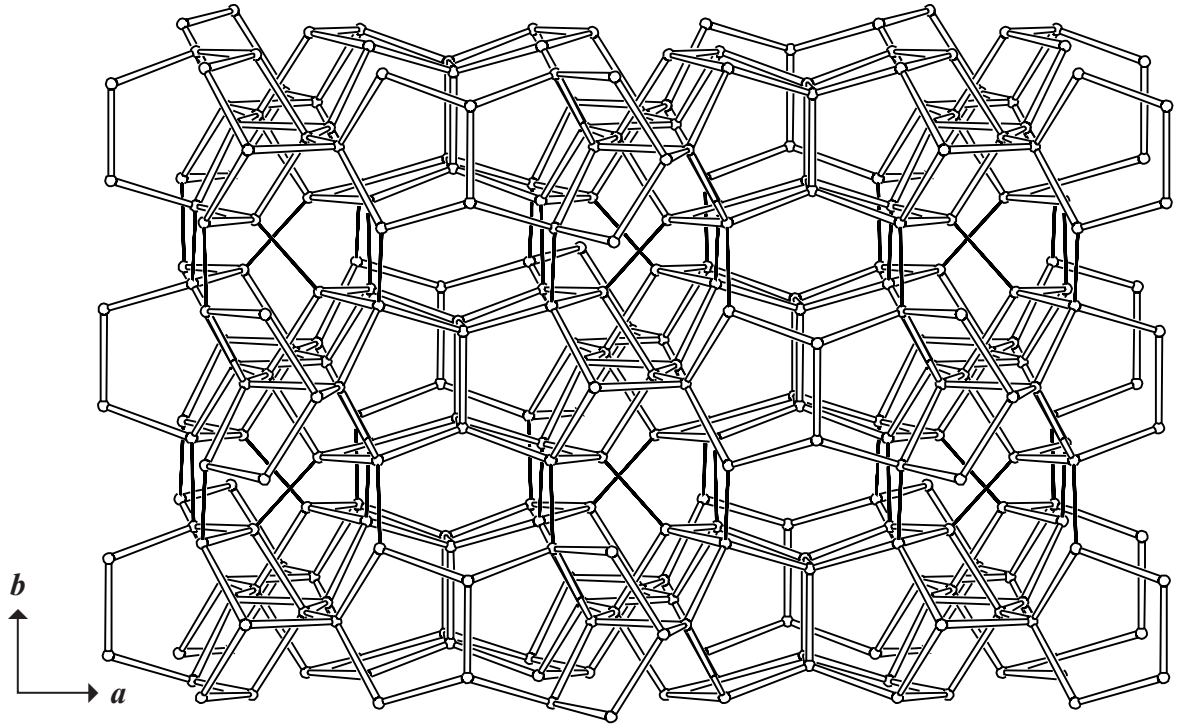

Figure 3. Connection mode viewed along ***c***.

3. Projections of the unit cell content:

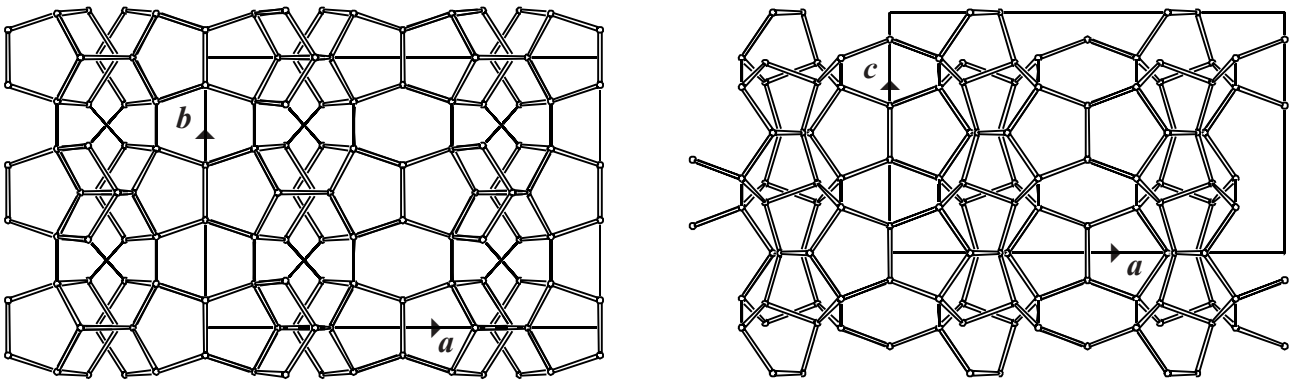

Figure 4. Unit cell content projected along ***c*** (left) and along ***b*** (right).

4. Channels and/or cages:

he cage in **NON** has apertures formed by 5- and 6-rings only. The cage and fusion of cages along ***c*** is illustrated in Figure 5 on next page. The **pore descriptor** is added.

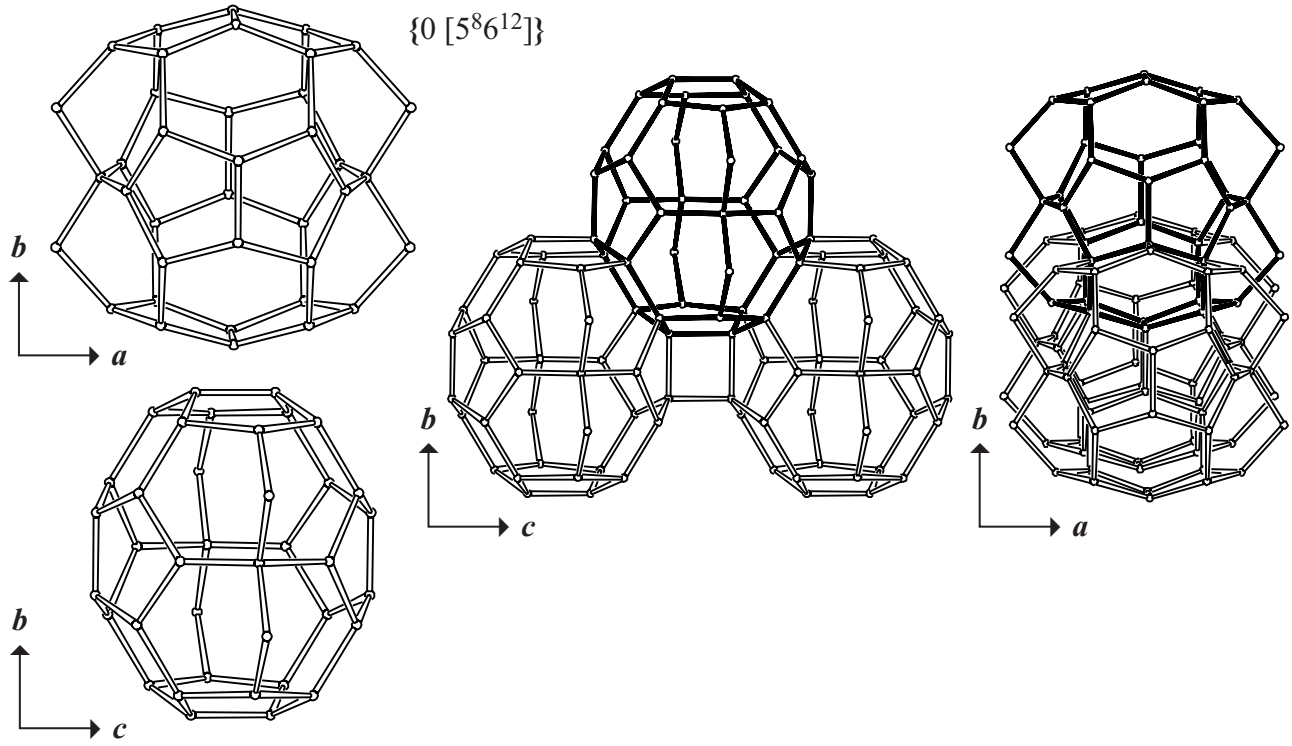

Figure 5. Cage viewed along ***c*** (top left) and along ***a*** (bottom left), and fusion of cages along ***c*** viewed along ***a*** (middle), and along ***c*** (right).

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5. Supplementary information:

In several framework types at least one of the unit cell dimensions is about n*5.2 Å (where n = 1, 2, 3, etc.). In many cases this indicates the presence of zigzag chains.
In the **INTRO** pages links are given to detailed descriptions of these framework types (choose: **Zigzag chains**). 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 1**).

Alternative description using (modified) 5-rings
Several framework types, like **NON**, can be constructed using (modified) 5-rings.
In the **INTRO** pages links are given to detailed descriptions of these framework types (choose: **5-Rings**). There is also a link provided to a summary of the Periodic Building Units used in the building schemes of these framework types (choose: **Appendix**; **Figure 6**).