

Building scheme for ABW



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1. Periodic Building Unit:

ABW can be built using the zigzag chain (bold in Figure 1) running parallel to b . The repeat distance along the zigzag chain is about 5.2 Å. The repeat unit consists of 2 T atoms. The two-dimensional Periodic Building Unit (PerBU) is obtained when zigzag chains are connected along c into a layer of (fused) 6-rings chairs as shown in Figure 1. [Compare this PerBU with the PerBU in **JBW**]

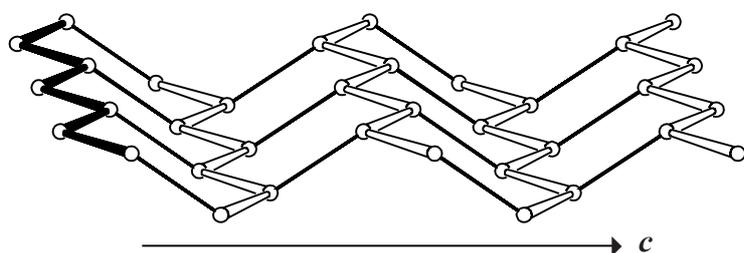


Figure 1. PerBU in **ABW**, constructed from zigzag chains, viewed along b .



2. Connection mode:

Neighboring PerBUs, related by a shift of $\frac{1}{2}(a + b + c)$, are connected along a through 4-rings.

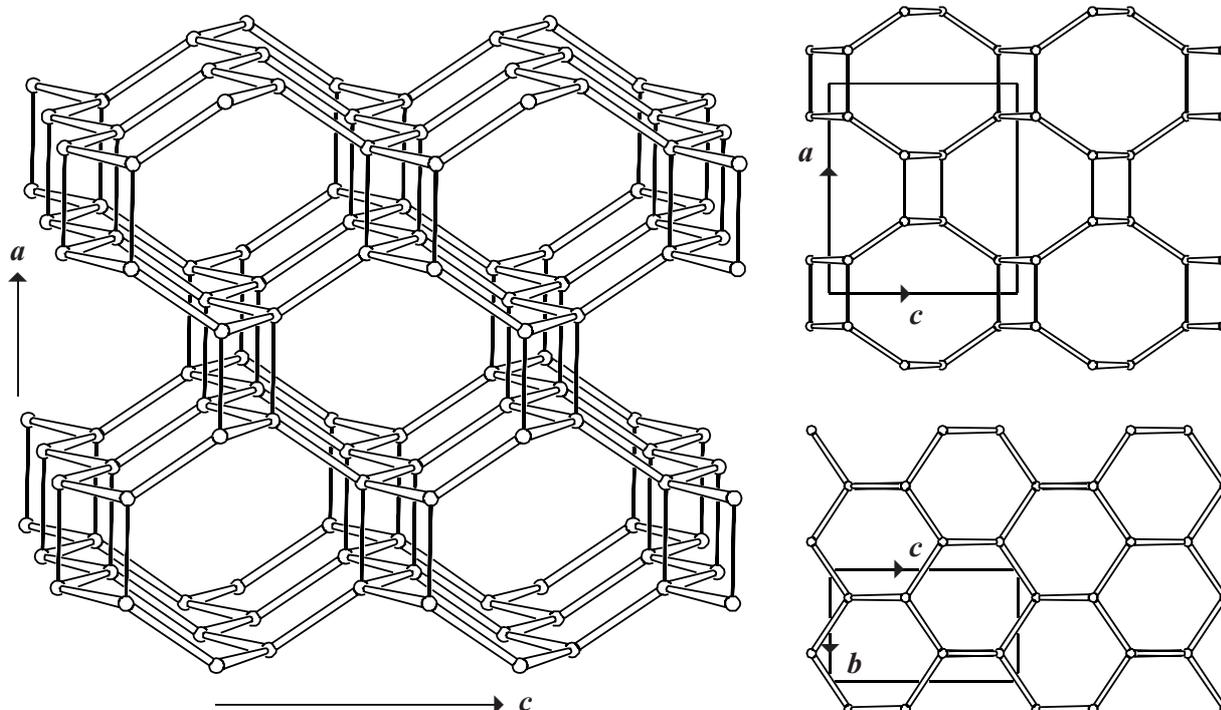


Figure 2. Connection mode in **ABW** viewed along b (left) and parallel projections of the unit cell content along b (top right) and along a (bottom right). **ABW** can as well be built from 4- or 8-rings, as can be seen from the Figure.



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

4. Channels and/or cages:

The 8-ring channel, parallel to b , is depicted in Figure 3. The **pore descriptor** is added. The channel is topologically equivalent to the channel in **JBW**.

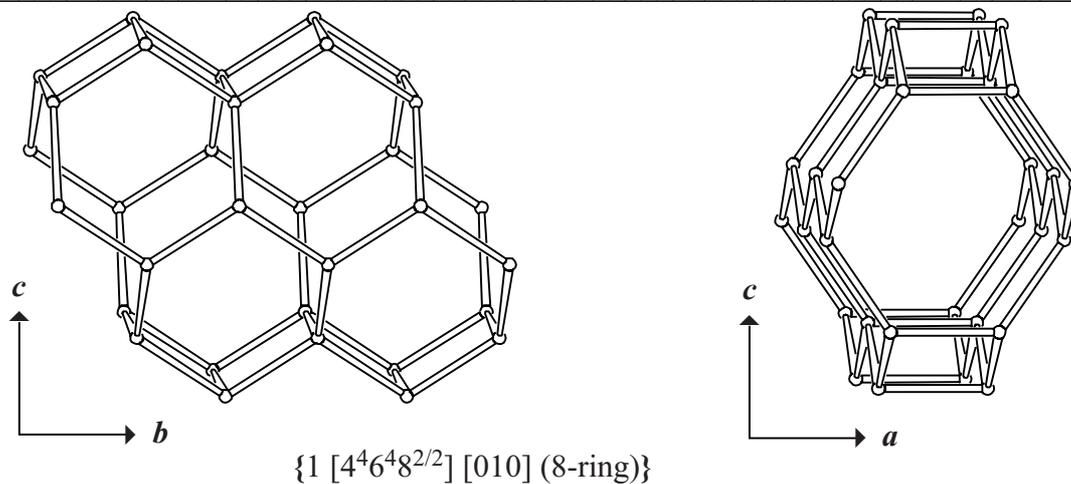


Figure 3. Channel (with side-pockets) in **ABW** viewed along a (left) and along the channel axis b (right). ▲

5. Supplementary information:

Other framework types containing zigzag chains

In several framework types at least one of the unit cell dimensions is about $n \cdot 5.2 \text{ \AA}$ (where $n = 1, 2, 3, \text{ etc.}$). 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**). ▲