Building scheme for ANA

1. Periodic Building Unit

Cubic ANA can be built using distorted 6-ring chairs (one in bold in Figure 1). A one-dimensional Periodic Building Unit (PerBU) is formed when 6-rings, related by a 2-fold rotation axis parallel to \(a\), are connected through (distorted) 4-rings into chains along \(b\) as shown in Figure 1.

![Figure 1](image1.png)

Figure 1. PerBU in ANA (chain of 6-rings) viewed along \(c\) (left), and along \(a\) (right).

2. Connection mode

Chains are connected along [100] and along [001] through (distorted) 4-rings to form the \(ba\) and \(bc\) layers depicted in Figure 2. Neighboring chains in the \(ba\) layer are related by a 2-fold screw axis parallel to [010]. Neighboring chains in the \(bc\) layer are related by a 2-fold axis parallel to [010].

![Figure 2](image2.png)

Figure 2. Connection modes in ANA. PerBUs are connected into \(ab\) layers (left) and into \(bc\) layers (right) through (distorted) 4-rings.
3. Projections of the unit cell content:

Figure 3. Cell content seen along c. (all three projections are the same)

4. Channels and/or cages:

Cavities in ANA, consisting of three distorted 8-rings and two 6-rings, are connected into "double" cavities that form irregular channels as illustrated in Figure 4. The pore descriptor is added.

Figure 4 Cavities in ANA viewed along c.

5. Supplementary information:

Other miscellaneous framework types

In the INTRO pages links are given to detailed descriptions of these framework types (choose: Miscellaneous). 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 12).