



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

SSF can be built using units of 54 T atoms (bold in Figure 1): six finite “zigzag” chains (each containing 5 T atoms) are connected around a 6-fold axis into a  $[6^8]$ -“double cage” (see inset Figure 1); six additional 4-rings are linked to the “double cage”. A two-dimensional PerBU is obtained when these T54-units, related along  $a$  and along  $b$  by pure translations, are connected into the  $ab$  layer through 4-rings.

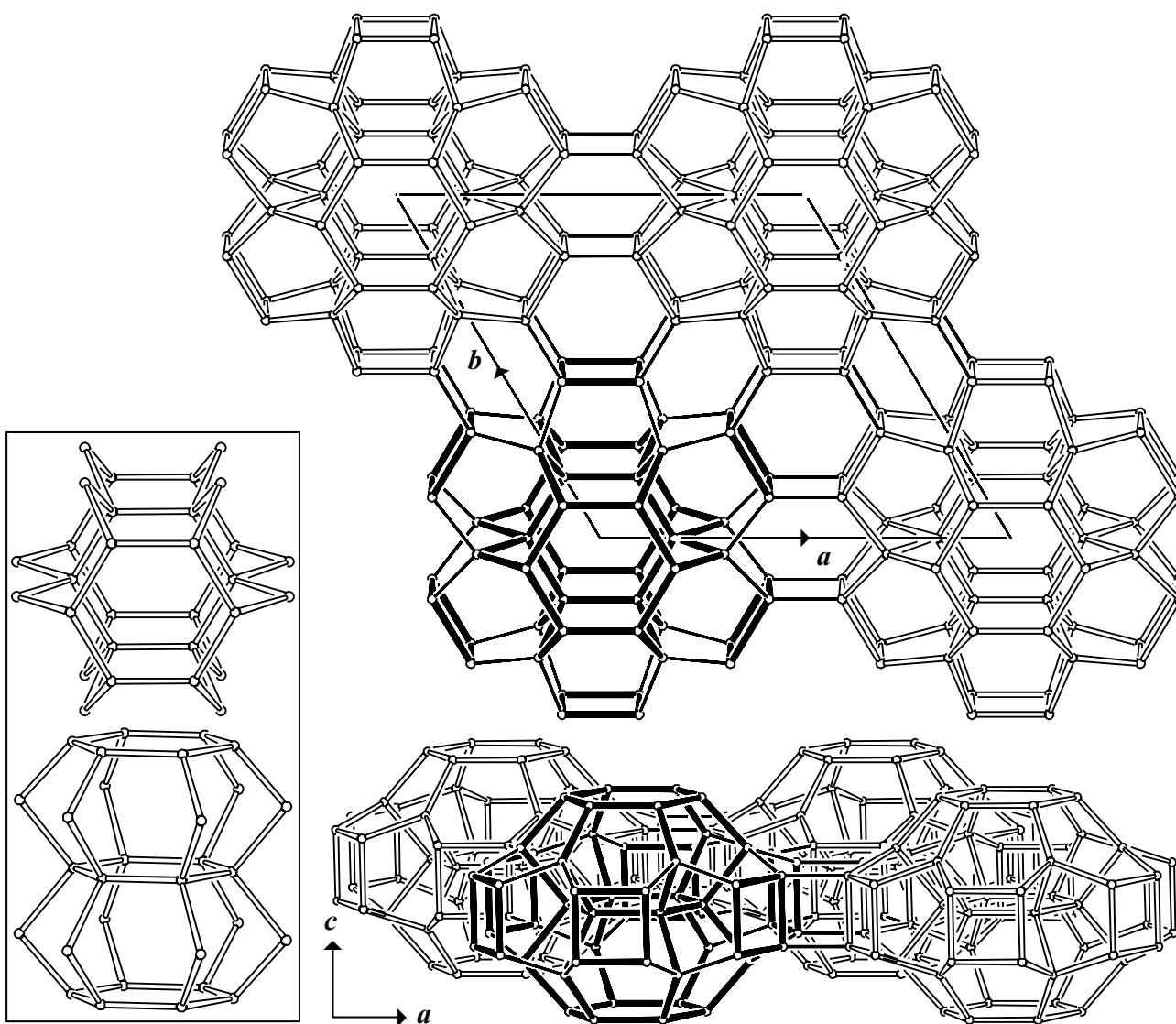


Fig. 1. PerBU viewed along  $c$  (top) and along  $[120]$  (bottom). The inset shows the  $[6^8]$ -“double cage” viewed along  $c$  (top) and along  $[120]$  (bottom).



## 2. Connection mode:

Neighboring PerBUs, related along  $c$  by pure translations, are connected along  $c$  through double 6-rings as shown in Figure 2.

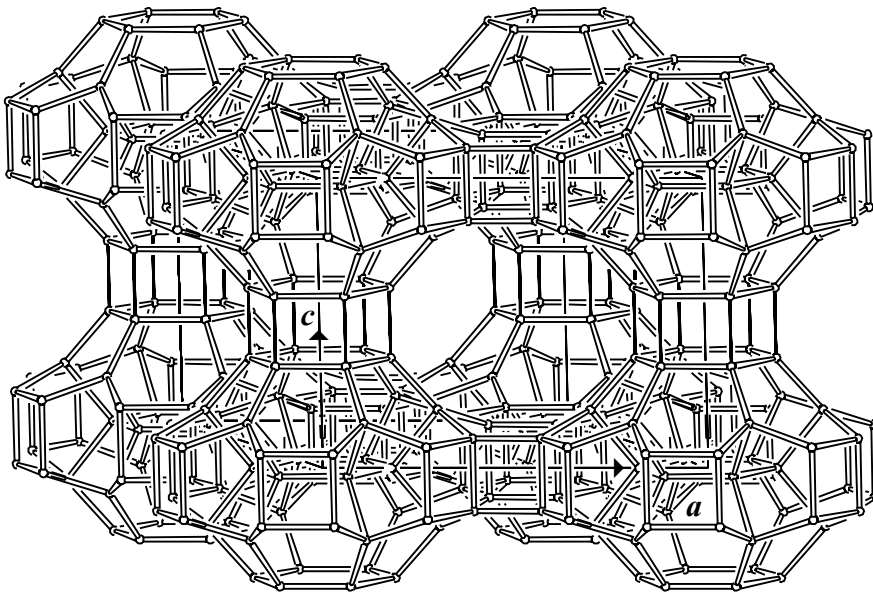


Fig. 2. Connection mode (and unit cell content) viewed along  $[120]$ .

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

## 4. Channels and/or cages:

A two-dimensional system of intersecting 12-ring channels is perpendicular to  $c$  (Figure 3).

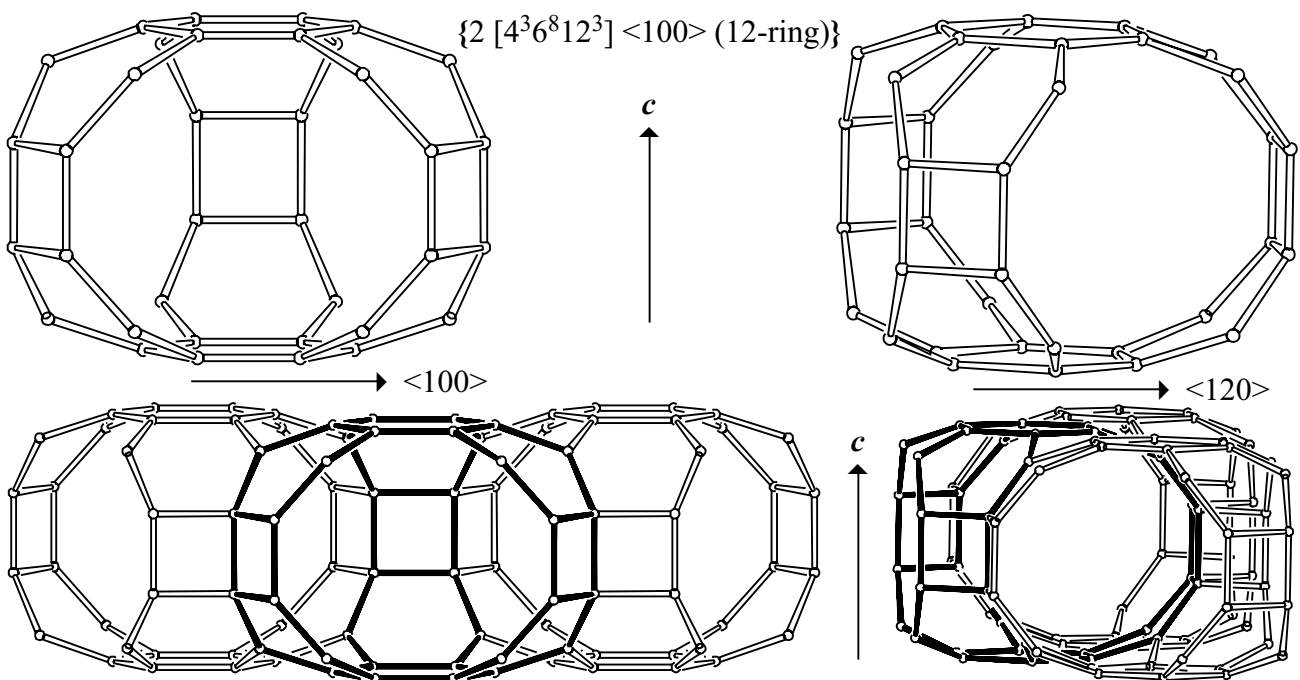


Fig. 3. Channel intersection (top) and linkage of intersections (bottom) viewed along  $\langle 120 \rangle$  (left) and along  $\langle 100 \rangle$  (right). The intersections are linked along  $\langle 100 \rangle$  through 12-rings.

## 5. Composite building units:

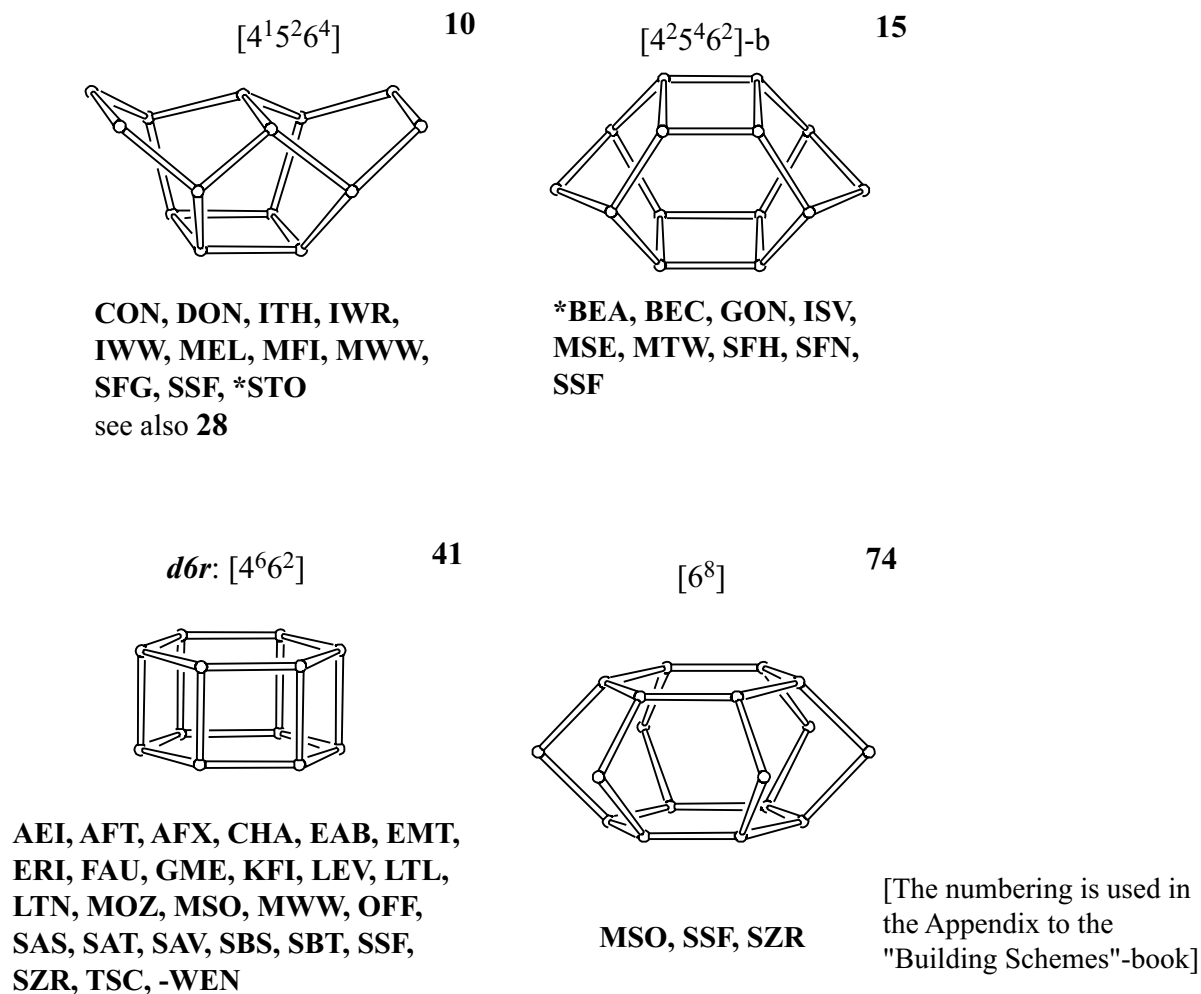


Fig. 4. Composite Building Units. The **pore descriptor** is added.

## 6. Supplementary information:

### *Other framework types containing (modified) cavities*

Several other framework types can be built using (modified) cavities.

In the **INTRO** pages links are given to descriptions of other framework types containing (modified) cavities (choose: **Cages**). 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 11**).

### *Alternative description of SSF using (modified) double 6-rings (D6Rs)*

Several framework types, like **SSF**, can be built using (modified) D6Rs (see Figure 1).

In the **INTRO** pages links are given to a detailed description of a sub-set of framework types that contain (modified) D6Rs (choose: **Double 6-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 7**).

