1. Periodic Building Unit

Hexagonal LTF can be built using the saw chain (bold in Figure 1) running parallel to \( c \). The repeat distance along the saw chain is about 7.5 Å. The repeat unit in the chain consists of 3 T atoms. Six saw chains are connected into a one-dimensional PerBU consisting of a column of \textit{gme} cavities that are connected through common 6-rings (Figure 1).

2. Connection mode

PerBUs, related by a 2-fold screw axis at \((1/2,1/2)\) and a 3-fold axis at \(<2/3,1/3>\) (both axes parallel to \( c \)), are connected into the \(ab\) plane through 8- and 12-ring channels as depicted in Figure 2.
Fig. 2b. Top left: PerBUs, related by a rotation of 60° about c and a shift of ½c (i.e. related by a 63-axis), are connected into a circular unit through 8-ring channels of type 1. For clarity, only two “double” gme cavities are drawn (see also Figure 2a). Top right: View of the inset perpendicular to c, illustrating the connection mode between these “double” gme cavities. Bottom: Circular units, related along a and b by pure translations, are connected through 8-ring channels of type 2. A second type of 12-ring channels is formed.
3. Channels and/or cages

Two types of 8- and 12-ring channels are parallel to c. The position of the channels and gme cavity is indicated in Figure 2b. The first type of 12-ring channels is one-dimensional and equivalent to the 12-ring channel in MAZ. The second type of 12-ring channels is also found in MOZ and OFF. This second type of 12-ring channels has common 8-rings with gme cavities and are interconnecting through these cavities to the 8-ring channels of type 1. The 8-ring channel of type 1 is topologically equivalent to (one of) the 8-ring channels in EON, MON, MAZ, MOR, RSN and VSV. The 8-ring channel of type 2 is one-dimensional. The gme cavity (shown in Figure 1) is also present in AFT, AFX, EAB, EON, GME, MAZ and OFF. Channels and there interconnections are shown in Figure 3. The pore descriptors are added.

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Fig. 3a. 12-Ring channel and 8-ring channel of type 1 viewed along <120> (top) and along c (middle) and linkage of channels (8-ring channel in bold) and gme cavity (bottom).
Fig. 3b. 12-Ring channel and 8-ring channel of type 2 viewed along <120> (top) and along c (middle) and linkage of 12-ring channel and 8-ring channel (in bold) of type 2 (bottom).
Fig. 3c. Linkage of 12-ring channels and 8-ring channels (in bold) and *gme* cavity viewed along along c

4. Composite Builing Units

Fig. 4. Composite Building Unit.

5. Supplementary information

*Other framework types containing saw chains*
In several framework types at least one of the unit cell dimensions is about n*7.5 Å (where n = 1, 2, 3... etc.). In many cases this indicates the presence of saw chains. In the INTRO-pages links are given to descriptions of other framework types containing (twisted) saw chains (choose: Saw chains). 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 2).