1. Periodic Building Unit:

CON and IWR can be built using chains parallel to $c$ constructed from units of 14 T atoms (bold in Figure 1) that are related by pure translations along $c$. The two-dimensional Periodic Building Unit (PerBU) is equal to the $bc$ layer composed of parallel chains, related by a 180º rotation about $b$ (or $c$), depicted in Figure 2.[Compare this PerBU with those in the Beta-like framework types]

Figure 1. T14-units (one in bold), consisting of two 1-5-1 units (see Alternative description) and related by pure translations along $c$, are connected into chains. The chain at the right is rotated over 90º about $c$ with respect to the left one.

Figure 2. (a): PerBU, constructed from chains, viewed along $a$ (one T14-unit in bold); (b) and (c): PerBU viewed along $b$. The PerBUs, depicted in (b) and (c) are identical and related by a rotation of 180º about $b$ (or by a mirror operation perpendicular to the plane normal; or by an origin shift of $\frac{1}{2}b$); (d): PerBU viewed along $c$.
2. Connection mode:

Neighboring PerBUs, related by a mirror operation perpendicular to the plane normal $n$, can be connected along $n$ through 4-rings in two different ways:

(1): the lateral shift of neighboring layers along $c$ is zero;

(2): the lateral shift of neighboring layers along $c$ is $+1/3c$, as illustrated in Figure 3.

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Figure 3: Connection mode (1) in IWR (top) and connection mode (2) in CON (bottom) viewed along $b$. Fused 4-6-6 ring sequences and fused 5-5-6 ring sequences are formed in connection mode (1) and (2), respectively. The parallel projections are shown at the right. [Compare these connection modes with the ones in *BEA and BEC]

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3. Projections of the unit cell content:

Pure IWR and CON are obtained when neighboring PerBUs, related by a mirror operation perpendicular to the plane normal $n$, are connected along $n$ by applying a lateral shift along $c$ of zero or $1/3c$, respectively, as shown in Figure 4 on next page. There is no difference in the projection of the structure of IWR and CON along $c$. 

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Figure 4: Cell content of IWR (top) and CON (bottom) viewed in perspective along \( b \) (left) and in projection along \( b \) (middle) and along \( c \) (right). The projection along \( c \) is the same for both framework types.

4. Channels and/or cages:

10-Ring channels are parallel to \( b \) and 12-ring channels are parallel to \( c \). The channels are depicted in Figure 4 on next page together with their pore descriptor. The 12-ring channels in CON and IWR parallel to \( c \) are topologically equivalent to those in *BEA and BEC, respectively [Compare the present Figure 5(a) with Figure 4 in *BEA and BEC]. The 10-ring channels parallel to \( b \) are equivalent in CON and IWR. The fusion of channels is illustrated in Figure 6. Diffusion along the 12-ring channel parallel to \( a \) is obstructed as can be seen from the drawings of the (fused) channels at the bottom of Figure 5 and Figure 6 on next pages.
Figure 5. (a): 12-Ring channel in CON (left) and IWR (right) viewed along c (top), b (middle) and a (bottom); (b): 10-Ring channel in both framework types viewed along b (top left), c (top right) and along a (bottom). [Figure 6 is on next page]
Figure 6. Fusion of channels in CON (left) and in IWR (right) viewed along $c$ (top), along $b$ (middle) and along $a$ (bottom).
5. Supplementary information:

**Beta-like framework types**
Beta-like framework types can be constructed using two types of chains. In the INTRO pages links are given to a description of the framework types that contain these chains (choose: Beta-family). There is also a link provided to a summary of the chains and PerBUs used in the building schemes of the framework types (choose: Appendix; Figure 9).

**Alternative description using (modified) 5-rings**
Several framework types, like CON and IWR, 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).