

## GLOSSARY for terminology used in the “Defects” section

**Bow defect:** arcuate or shaped like a bow zipper termination. This can be either symmetrical or asymmetrical.

**Chain derailment:** a shift of a zipper sequence along the *b* direction.

**En-echelon defects:** these describe an arrangement where a set of short linear features overlap or are staggered in a line that runs obliquely to the strike of the individual features.

**Fault:** planar fracture or discontinuity across the chain structures or at zipper terminations. Those faults that show displacement (relative movement of chain sequences one to another) are commonly along (210) cleavage planes in the amphibole/pyriboles, i.e., displacement along  $n/4\langle 010 \rangle$  directions when projected on [001] zone axis. Depending upon the sense of movement of the chain sequences relative to the fault trajectory, normal and inverse faults can be defined by analogy with geological terminology. In a **normal fault**, the chain sequence above the planar fault has moved downward relative to the chain sequence below. This type of faulting occurs in response to extension. A **reverse fault** is the opposite, the upper chain sequence, above the fault plane, moves up and over the lower chain sequence. This type of faulting is common in areas of compression.

**Hairpin structures:** a zipper showing a U-shaped structure within a given chain silicate.

**Jogs:** short or limited changes in direction marked by direct contact between the two arrays of ‘A’ cavities at a zipper termination or along a derailment. The double A cavities, either empty or not fully occupied, create spaces or channels for further fluid-mineral reactions. Also used in association with the geological term ‘dilational jogs’ that occur as space filling in the bend of a fault that undergoes sudden movements.

**Oblique defects:** defects marked by an array of ‘A’ cavities at a low angle (oblique) to the chain sequence in the pyribole-amphibole matrix. These differ from a fault in that, although it shifts some chains, it does not show a displacement of a well-defined chain sequence.

**Pull-apart swells defects:** bends or steps in a chain sequence that shows extension on one side of a zipper relative to the other side.