

## 1.8: Asymmetric Unit

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An asymmetric unit of a space group is a simply connected smallest closed part of space from which, by application of all symmetry operations of the space group, the whole space is filled. This implies that:

- mirror planes must form boundary planes of the asymmetric unit;
- rotation axes must form boundary edges of the asymmetric unit;
- inversion centers must either form vertices of the asymmetric unit or be located at the midpoints of boundary planes or boundary edges.

These restrictions do not hold for screw axes and glide planes.

The term "asymmetric unit" does not mean that this region has an asymmetric shape. In mathematics it is called fundamental region or fundamental domain.

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