

9.16: Twinning by merohedry

The twin operation belongs to the point group of the lattice but not to the point group of the crystal. Therefore, the point group of the crystal must be a subgroup of the point group of the lattice, i.e. the crystal shows only a part (*merohedry*) of the symmetry elements belonging to the its lattice which, instead, shows *holohedry* (complete symmetry). The twinning element of symmetry may (*Class I of twins by merohedry*) or may not belong to the Laue class of the crystal (*Class II of twins by merohedry*): Examples - Class I: in crystals with point group 2 (Laue group $2/m$) the mirror plane m acts as twinning operator. Class II: in crystals with point group 4 (Laue group $4/m$) a mirror plane m parallel to the fourfold axis 4 acts as twinning operator.

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