

eight triangles by great circles through the poles of the forms 001 and 110, the poles of λhkl will be found in four alternate triangles, and the poles of the form λkhl in the remaining four alternate triangles.

69. The form bounded by all the faces of the form hkl , in which the order of h, k is the same or different, according as h, k have the same or different signs, is said to be hemihedral with parallel faces, and will be denoted by the symbol πhkl , where hkl is the symbol of any one of its faces. The symbols of the faces of the form πhkl are contained in the first and third columns; those of πkhl in the second and fourth columns of the table in (65).

If the surface of the sphere of projection be divided into eight lunes by zone-circles through the poles of the forms 100, 110, the poles of πhkl will be found in four alternate lunes; and those of πkhl in the remaining four alternate lunes.

70. The form bounded by all the faces of the form hkl , in which the order of the indices h, k is the same or different according as an odd number of the indices are positive or negative, is said to be hemihedral with asymmetric faces, and will be denoted by the symbol $ahkl$, where hkl is the symbol of any one of its faces. The upper and lower halves of the table in (65), contain the symbols of the faces of $ahkl, akhl$ respectively.

The poles of $ahkl$ are the eight alternate poles of the form hkl ; and the poles of $akhl$ are the remaining eight alternate poles of the form hkl .

71. The poles of the form hkl are symmetrically arranged with respect to each of the five zone-circles drawn through the poles of every two of the forms 001, 100, 110. The poles of κhkl are symmetrically arranged with respect to the two zone-circles drawn through the poles of the form 001, and those of the form 110. The poles of λhkl are symmetrically arranged with respect to the two zone-circles through the poles of the form 001, and those of the form 100. The poles of πhkl are symmetrically arranged with respect to the zone-circle passing through the poles of the form 100.

72. The two hemihedral forms, either with inclined or with parallel faces, derived from the same holohedral form, are identical in all respects, position excepted; for by making the sphere of projection revolve through two right angles round two opposite poles of the form 100, the poles of κhkl and πhkl come into the places of those of $\kappa \bar{h}\bar{k}\bar{l}$ and πkhl respectively; and by making it revolve through two right angles round two opposite poles of the form 110, the poles of λhkl come into the places of those of λkhl . The two hemihedral forms $ahkl, akhl$ are essentially different.