
For the purposes of the classification of the groups of generalized symmetry the Bohm-Kopetskik symbol $G^1(p)$ is applied. This symbol describes the group of p-colored and l-fold antisymmetry in the r-dimensional space with the l-dimensional translation subgroup.

We propose to give this symbol a more general meaning, so it will concern all groups of generalized classical symmetry, homology, similarity symmetry and curvilinear symmetry. To distinguish among various kinds of symmetry, S, H, L, C letter symbols are suggested which are put in place of the letter G:

$s^1(p)$ - is a symbol of generalized classical symmetry groups,

$h^1(p)$ - is a symbol of generalized homology groups,

$l^1(p)$ - is a symbol of generalized similarity symmetry groups,

$c^1(p)$ - is a symbol of generalized curvilinear symmetry groups.

It is suggested that the symbol $c^1(p)$ should be used for the crystallographic groups with 1, 2, 3, 4, 6-fold axes, where c = crystallographic.

20.1-07 ON SOME SIMILARITY OPERATIONS IN THE THEORY OF SIMILARITY SYMMETRY. By Z. Durski, Department of Chemistry, Technical University, Warszawa, Poland.

Twenty years ago, in 1960, A. V. Shubnikov published a basis of the theory of similarity symmetry. Shubnikov described four operations of similarity symmetry and called them K, L, M, N operations.

Applying Shubnikov’s geometric method, we can present still two more similarity operations: $C_p$ - reflection through center of similarity and $\mathbb{L}$ - rotation about the inversion axis of similarity.

Operation $C_p$. Transformations through a similarity center are accompanied by k-multiply growing of the parts of figure and k-multiply growing of distances between those parts and similarity center.

Operation $L$. This operation consist of $L$ and $C_p$ operations which are made at the same time, that is to say rotation about $L$ axis through $\pi$ and $K$ operation, and a reflection through similarity center laying on $L$. As a result of $L$ operation, depending on the position of the initial part of figure towards $C_p$, two- or three-dimensional figures can be formed.

This work was made in 1980, on 60th anniversary of A. V. Shubnikov’s death.

Fig. 1. The scheme of three-dimensional figure forming as a result of $L$ operation ($\psi = \pi/2$). On this Fig. the changes of distances and large­nesses of the parts of the figure have not been taken into consideration. $C_p$ and part 1 of figure are not laying on the one plane perpendicular to $L$ axis. Straight lines $C_p$ and $C_p\psi$ from $C_p$ point rise over the Fig. plane. Straight lines $C_pB$ and $C_pB'$ from $C_p$ point descend below the Fig. plane. 1, 2, 3... parts of the figure generated one after another.