

1.2. REPRESENTATIONS OF CRYSTALLOGRAPHIC GROUPS

V^*	dual space	ω	factor system
S	basis transformation	$\text{Det}(R)$	determinant of R
χ	character	$\left(\begin{array}{cc cc} \alpha & \beta & \gamma & \\ i & j & k & \ell \end{array} \right)$	Clebsch–Gordan coefficients
$\chi(R)$	value of χ at R		
C_i	conjugacy class	θ	time-reversal operator
χ_α	irreducible character		
m_α	multiplicity		
N	order of K		
d_α	dimension of irreducible representation α		
n_i	order of class C_i		
c_{ijk}	class multiplication constants		
T	tetrahedral group		
O	octahedral group		
I	icosahedral group		
$P(K)$	projective representation		
$W_i(A_1, \dots, A_p)$	word in generators A_j		
K^d	double group		
$E(n)$	Euclidean group		
$g = \{R \mathbf{a}\}$	element of $E(n)$		
$T(n)$	translation group in n dimensions		
Λ	lattice		
Λ^*	reciprocal lattice		
$\mathbf{a}(R)$	translation vector system		
\mathbf{k}	vector in dual space		
$G_{\mathbf{k}}$	group of \mathbf{k}		
$K_{\mathbf{k}}$	point group of $G_{\mathbf{k}}$		

References

Altmann, S. L. & Herzig, P. (1994). *Point-group theory tables*. Oxford: Clarendon Press.

Butler, P. H. (1981). *Point group symmetry applications*. New York & London: Plenum Press.

International Tables for Crystallography (2002). Vol. A. *Space-group symmetry*, edited by Th. Hahn. Dordrecht: Kluwer Academic Publishers.

Janssen, T. (1973). *Crystallographic groups*. Amsterdam: North-Holland.

Kovalev, O. V. (1987). *Representations of the crystallographic space groups*. New York: Gordon and Breach.

Miller, S. C. & Love, W. F. (1967). *Tables of irreducible representations of space groups and co-representations of magnetic space groups*. Boulder, Colorado: Pruett Press.

Stokes, H. T. & Hatch, D. M. (1988). *Isotropy subgroups of the 230 crystallographic space groups*. Singapore: World Scientific.