

REPRESENTATIONS OF THE GROUPS
OF DIRECTIONS AND SYMMETRIES
OF CRYSTALS AND MOLECULES

P. I. Korenyuk

Taras Shevchenko Kyiv National University
(6, Academician Glushkov Prosp., Kyiv 03127, Ukraine)

S u m m a r y

This paper presents an analysis of the crystal's atomic structure kinematics over the vibration displacement space by using the representation of the point group only. A method of decomposition of such representations into blocks is developed. Results of this method for the crystal class D_3 are given. The presence of the nonzero momentum in the vibration movement for this class is demonstrated. On this base, a criterion for determination of the minimum volume crystal (Raman's supermolecule) has been proposed.