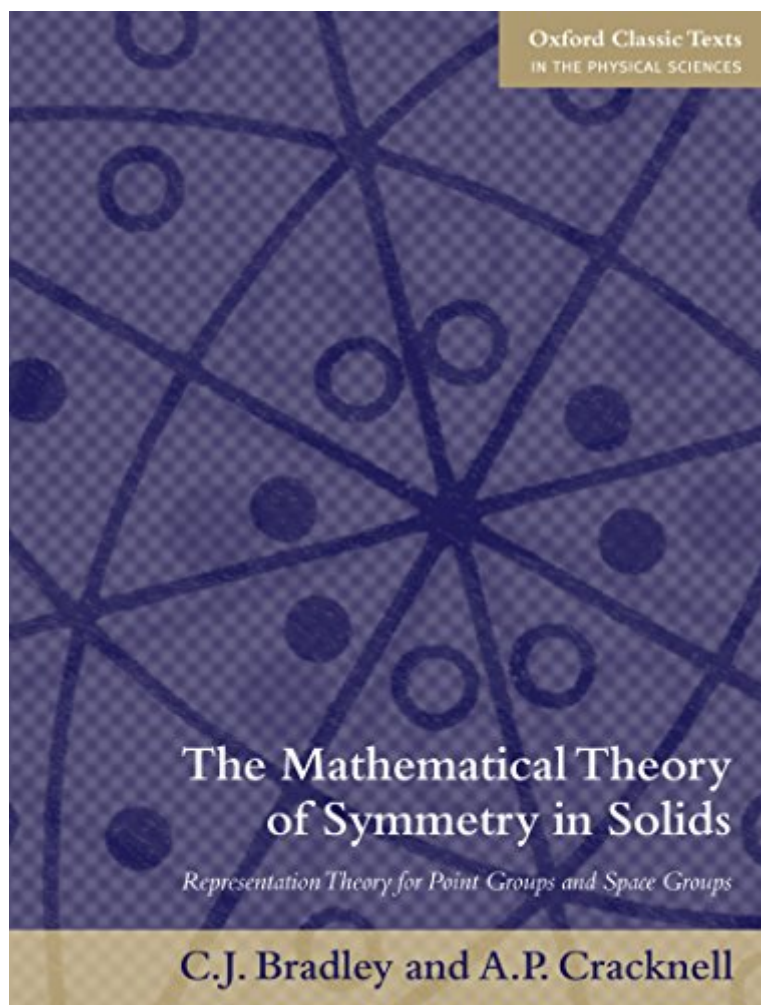


The book was found

The Mathematical Theory Of Symmetry In Solids: Representation Theory For Point Groups And Space Groups (Oxford Classic Texts In The Physical Sciences)





Synopsis

This book gives the complete theory of the irreducible representations of the crystallographic point groups and space groups. This is important in the quantum-mechanical study of a particle or quasi-particle in a molecule or crystalline solid because the eigenvalues and eigenfunctions of a system belong to the irreducible representations of the group of symmetry operations of that system. The theory is applied to give complete tables of these representations for all the 32 point groups and 230 space groups, including the double-valued representations. For the space groups, the group of the symmetry operations of the k vector and its irreducible representations are given for all the special points of symmetry, lines of symmetry and planes of symmetry in the Brillouin zone. Applications occur in the electronic band structure, phonon dispersion relations and selection rules for particle-quasiparticle interactions in solids. The theory is extended to the corepresentations of the Shubnikov (black and white) point groups and space groups.

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Customer Reviews

Pretty useful for those that have to deal with representation theory in solids.

This was just what we wanted. We had already been using a library's copy.

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