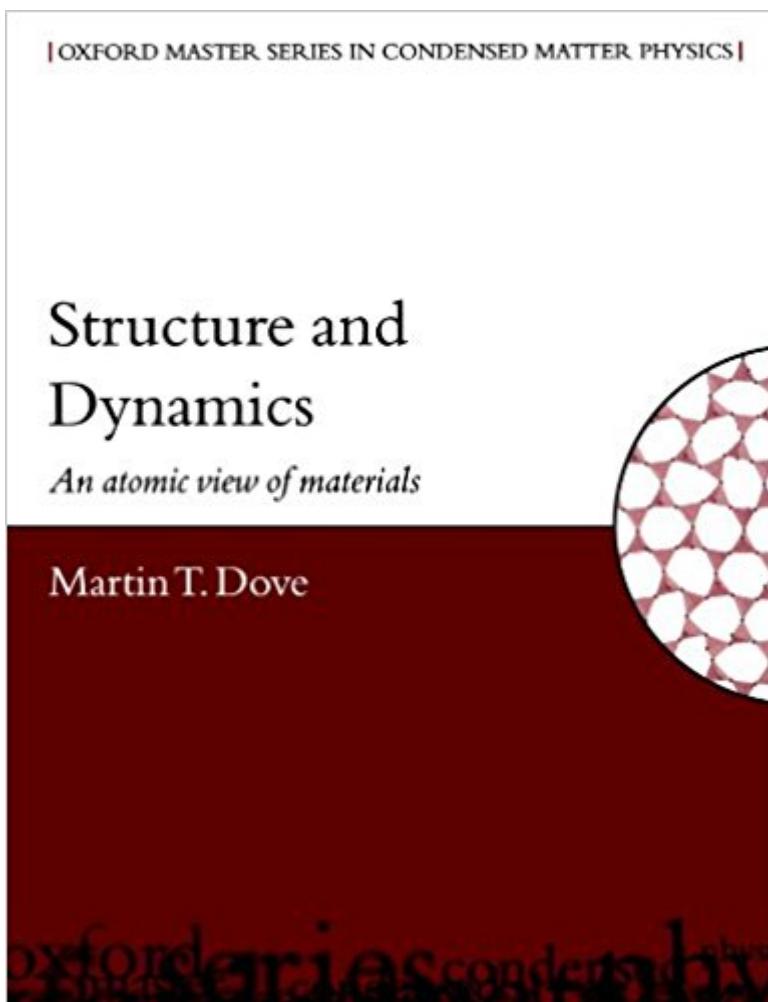


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Structure And Dynamics: An Atomic View Of Materials (Oxford Master Series In Physics)



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Book Information

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Dr. Martin T. Dove, Mineral Physics Group, Department of Earth Sciences, University of Cambridge, Downing Street, Cambridge CB2 3EQ, Tel.: 01223/333482, Email: martin@esc.cam.ac.uk, Homepage: <http://www.esc.cam.ac.uk/astaff/dove>

This is a nice book to have on your bookshelf if you're involved or interested in crystalline materials and thermal properties (more specifically phonons). The text is essential two parts, the first which covers basic crystallography and bonding and then the second discusses, in detail, lattice vibrations theory and measurements. I particularly purchased this book for the second half since the author's advanced text on lattice dynamics is very costly. The only negative comment I have is that occasionally the author allows for some ambiguity in the arrival of equations. The problems at the end of the chapter are very nice and the solutions are also provided. As with the author's advanced text (Introduction to Lattice Dynamics) it would be nice if this text provided some computational problems/exercises since calculating phonon properties of most materials can only be done computationally.

Good overview of symmetry operations, but wish it was slightly more in-depth. The book examples need to be more thorough. Otherwise a good read for someone trying to get a fundamental understanding of symmetry operations in crystal structures.

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