
This volume reports the proceedings of a Conference held in New York in August 1971: it has already appeared as volume 31 of Surface Science in 1972 and is now issued by North Holland as a separate book. The 27 papers (plus discussion) contained in it have a strong ‘metals’ bias and include several substantial review papers on recent developments in the field. One third of the papers deal with theoretical aspects of boundary structure and energetics, another third with dislocation structures at boundaries as observed by transmission electron microscopy. The last five papers are concerned with grain-boundary sliding and migration, and diffusion effects.

Many libraries will already possess this volume as a result of their subscription to Surface Science. Research groups in physical metallurgy and materials science which do not have access to Surface Science would be well advised to obtain a copy.

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It has been some years since the subject of preferred orientation in metals was first put into text-book form. The present volume represents a bold step on the part of the author in view of the ever increasing amount of research and application in this field. The standard of the book is essentially post-graduate but the presentation includes a large amount of fundamental work which should be of interest to final year students.

The foreword places the subject in perspective, differentiating between crystallographic anisotropy and mechanical fibering and attempts to justify the almost complete exclusion of non-cubic metals by quoting world usage.

The commencing chapters on texture and symmetry, representation and determination of textures give adequate coverage of principles and methods available to date. Pole figures are introduced in a way which aids basic understanding. Techniques are discussed in brief rather than in working detail. Further chapters cover adequately the role of defects, quantitative relation of single and polycrystalline properties, deformation of single crystals and formation of textures in polycrystals.

As with experimental methods the author has chosen to review theories in brief but the trend of the book changes slightly as recrystallization textures are presented in review form rather than as a generalization of results. The section on phase transformations might have been more adventurous, especially from a crystallographic approach, in view of increased interest in this variable over the last few years.

The chapters on laboratory and industrial applications will be extremely useful to readers, and the final chapter considers problems encountered in non-metallics, single crystals and compounds. A concluding paragraph justifies the merit of the book by quoting specific examples of texture control which have resulted in considerable cost savings over the years.

One major criticism is that the language of publication may restrict interest in the book. For a subject such as this, of world-wide appeal, it should be worthwhile to the publisher to consider an edited version in English.

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Books Received
The following books have been received by the Editor. Brief and generally uncritical notices are given of works of marginal crystallographic interest; occasionally a book of fundamental interest is included under this heading because of difficulty in finding a suitable reviewer without great delay.

Advances in X-ray analysis, Vol. 16. Proceedings of 21st Annual Conference on Application of X-ray Analysis,