

years because of its usefulness in the study of interfacial chemistry, semiconductor surfaces and epitaxial growth. These *Proceedings* are a useful set of papers and discussions which highlight the important issues of the moment in this field. They include a particularly valuable review of the methods of interpretation of LEED patterns written by Professor R. M. Stern, who presents evidence that a three-dimensional, two-beam dynamical theory of electron scattering can be expected to be a good description of the elastic processes occurring. Other important papers are by Morgan & Somorjai and by Palmberg who present

evidence for structural rearrangements at the clean surfaces of platinum and gold respectively. Such structural rearrangements were previously thought to occur only in the covalent bonded materials such as silicon and germanium.

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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.

Ruptures de fatigue de pièces de machines, classification et analyse. PAR G. POMEY, P. RABLE et LA COMMISSION DE FATIGUE DES MÉTAUX DE LA SOCIÉTÉ FRANÇAISE DE METALLURGIE. Pp. xiv+243. Paris: Dunod. Prix 57,58 F.

This book describes various modes of fatigue fracture both as they appear in parts of machines in normal use and also as reproduced by testing to destruction under laboratory conditions.

The types of fracture are categorized, analysed in detail and amply illustrated with photographs and micrographs.

Structure and properties of solids. By L. SODONKA. Pp. 176 London: Physics Paperbacks (Iiffe Books Ltd.) Price 15 s. (U.K. only).

This modestly priced paperback, published in conjunction with the Czechoslovakian Publishers SNTL, covers a wide variety of solid state topics at a brisk pace. An empirical approach at around the level of Dekker's *Solid State Physics* is adopted, though many formulae are merely

quoted. There are good descriptive passages, but the cursory references to recent techniques, such as inelastic neutron scattering and the Mössbauer effect, can scarcely illuminate the uninitiated. The book provides fair value for money, but must be regarded as complementary to the orthodox undergraduate solid state physics texts rather than as a replacement for them.

J. A. D. MATTHEW

Tables of solutions to Bragg's equation for copper, cobalt, iron and chromium $K\alpha$ radiation and small diffraction angles. BY JAMES P. COLSON and EDWARD S. CLARK. Pp. 73. N.B.S. Technical Note 461 (August 1968). Price \$0.50 (plus 25% outside U.S.A.)

This publication presents tables of solutions to the Bragg equations $d = \lambda / (2 \sin \theta)$ for $K\alpha$ radiation of copper, cobalt, iron and chromium. The intervals are for 2θ ranging from 0.001 to 2.999 degrees in increments of 0.001 degree and from 0.00002 to 0.04999 radian in increments of 0.00001 radian. The values of d are given to five significant figures.