D.H.Niblett das sog. Bordoni-Maximum der inneren Reibung in k.f.z. Kristallen, das durch Elementarschritte der Versetzung im Kristallpotential hervorgerufen wird,

R.H.Chambers die besonders ausgeprägten Effekte dieser Art in k.r.z. Kristallen.

R.Truell, C.Elbaum und A.Hikata beschreiben innere Reibungseffekte während der Verformung von Al und NaCl.

W.J.Bratina diskutiert solche Effekte in kubisch raumzentrierten Metallen, insbesondere Eisen und bei grossen Schwingungsamplituden.

Eine besondere Anwendung haben anelastische Messungen beim Studium bestrahlungsinduzierter Defekte gefunden, die D.O.Thomson und V.K.Pare beschreiben.

Der längste und theoretisch tiefstschürfende Artikel des Bandes von A.Seeger und P.Schiller beschreibt schliesslich die dynamischen Eigenschaften des elementaren Vehikels der Kristallversetzungen, der 'Kinke' (altdeutsche Übersetzung des engl. Wortes kink).

Der Kristallograph wird sich in diesen Artikeln nur insofern angesprochen fühlen, als er an der Struktur und Dynamik von Kristallbaufehlern interessiert ist. Manchmal kommt die Kristallographie in diesen Artikeln neben der Physik sogar etwas zu kurz. So hätte man sich im 1. Abschnitt eine gruppentheoretische Behandlung der Punktfehler-Relaxation gewünscht. Im ganzen aber ein ausgezeichnetes Handbuch, zu dem man dem Herausgeber gratulieren kann.

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The physics of semiconductors. The proceedings of the eighth international conference on semiconductors, Kyoto 1966. Pp. x+xiii+780. The Physical Society of Japan.

The Eighth International Conference on the Physics of Semiconductors was held in Kyoto, Japan, in September 1966. The proceedings have now appeared as a single formidable volume of some seven hundred and eighty pages containing about 150 papers. Naturally there is a very wide range of topic and the papers are divided into eighteen sessions: Band theory, Optical properties – lattice, Optical properties – electronic, Excitons, Magneto-optics, Impurity states, Recombination, Transport phenomena, Quantum transport, Hot electrons, Electron–phonon interactions, Current instabilities, Impurity conduction, Tunnelling, Magnetic semiconductors, Superconductivity, Semi-metals, Plasma instabilities, Magneto-plasma and Magneto-acoustic phenomena. These section headings are sufficient to show the scope of the Conference.

The way in which each of these subjects has developed over the last few years in breadth, depth and sophistication is remarkable. Thus in the first topic, that of Band theory, the advances since the Second Conference in 1954 are such that we now have fair descriptions of the electronic band structure of the 3–5 and 2–6 compounds as well as for silicon and germanium. These are based principally on pseudo-potential and perturbation calculations with comparisons with experimental results, usually those obtained from optical reflexion experiments. Already these techniques are being applied to other more complex materials.

Optical methods for studying semiconductors have always been important and have figured in each successive conference. They have been notable for their elegance of technique. Amongst the new work reported at this conference, that concerned with the interpretation of two-phonon Raman scattering is noteworthy, as is the use of lasers to provide the primary beam in such experiments. The use of strong magnetic fields in experiments aimed at studying transport phenomena as well as in optical experiments has increased noticeably. There is also an increased interest in the highly anisotropic layer compounds such as CdI_2 and GaSe, as is evinced by several contributions in the sessions on optical properties.

Impurities continue to be studied extensively and the recent work is covered in the three sessions on Impurity state, recombination and impurity transport. This is an area in which it is better to report 'steady progress' generally rather than to pick out a particular paper or technique.

From an application point of view, the papers in the Current Instability section are important, for they are mostly related to the Gunn effect, the general principles of which are now understood. There are, however, significant 'filling-in operations' still to be done, as this set of papers shows. The most striking feature in this field is the swiftness of the development of theory and experiment once an effect had been observed, to give the first manufactured devices (three years).

The more exotic materials are represented in the sections on magnetic and superconducting semiconductors, although both are small.

The impression given by this volume is one of extremely high activity in numerous laboratories. Once again one is struck by the way in which semiconductors are such excellent vehicles for solid state research of a most general kind. The volume itself is well produced; items of discussion are given after each paper. That there are misprints is inevitable in such a large volume of this nature. Fortunately, they do not mar its contents. These proceedings are a very valuable summary of recent knowledge and must be freely available in all laboratories with pretensions to solid-state research.

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World literature in physics as seen through *Physics Abstracts*–1964 issues. Two vols., duplicated, pp. 1–258, 259–531. 1967. Price U.S.$ 15.00.

World literature in physics as seen through *Bulletin Signalétique*–1964 issues. Two vols. duplicated, pp. 1–220, 221–326. Paris: Conseil International des Unions Scientifiques, Bureau des Résumés Analytiques, 1967. Price U.S. $ 15.00.

These two works are the first part of a study being made by the ICSU Abstracting Board of the production of abstracting journals within the field of physics. There are four physics member journals of the ICSU AB, the two here studied, the *Physikalische Berichte*, and *Referativnij Žurnal*. A similar study is in progress for *Physikalische Berichte*,