

On p. 77, Table 4-6 gives data relating to the yttrium and rare earth iron garnets. These data are attributed to Pauthenet, Bertaut and Pauthenet, Rodrigue *et al.*, Geller and Gilleo and to Tebble and Craik. Tebble and Craik refers to a book on 'Magnetic Materials' and therefore is a secondary reference, which, incidentally, contains all the data in this book and then some. *None* of the data come from the Geller and Gilleo paper. In fact all the 0 K spontaneous moment data come from other papers of mine (not cited) as do the compensation temperatures of Gd, Tb, Dy, Ho and Er iron garnets. The YbIG compensation temperature comes from a paper by Henderson and White (not cited). The Curie temperature of yttrium iron garnet also comes from one of my papers (not cited). The remaining Curie temperatures of the rare earth iron garnets do not form a smooth curve when plotted against atomic number and I believe that it is unlikely that they would behave this way.

On p. 83, reference is made to the Gilleo (1960) model

and also to a 1960 paper of mine in which I used this model. However, subsequent investigation proved that this model was inadequate to describe the behavior of substituted ferrimagnetic garnets and the new model mentioned above was developed (1962).

The typography of the book is very good. I have found about four mistakes, none being very serious.

The book was originally written to provide a means 'of directing the graduate student to the broad introductory treatment which he requires'. With some external aid, this book may serve that purpose.

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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.*

**Solid state physics 3. Theory of lattice dynamics in the harmonic approximation.** By A. A. MARADUDIN, E. W. MONTROLL, G. H. WEISS AND I. P. IPATOVA. Pp. xiii + 708. New York: Academic Press, 1971. Price £13.30.

The first edition of this book was published in 1963. This new edition, with an additional editor, Ipatova, incorporates new material and fills in gaps of the original version. The contents include Introduction; elements of the theory of lattice dynamics; applications of group theory to lattice dynamics; theory of the vibrational frequency spectra of solids; calculations of thermodynamic functions without the use of the frequency spectrum; dynamical theory of ionic crystals; scattering of X-rays and cold neutrons by lattice vibrations; the effect of defects and disorder on lattice vibrations; the effects of surfaces on the vibrations of crystal lattices; statistical mechanical properties of systems of coupled harmonic oscillators.

**Electron paramagnetic resonance.** Edited by S. GESCHWIND. Pp. xv + 584. 121 Figs. 17 Tables. New York: Plenum Press, 1972. Price \$ 37.50.

Contents.

Chapters: 1. Jahn-Teller effects in electron paramagnetic resonance spectra. 2. Electron spin-lattice relaxation. 3.

Dynamic polarization of nuclei. 4. Electron spin echoes. 5. Optical techniques in e.p.r. in solids. 6. Pair spectra and exchange interactions. 7. Electron paramagnetic resonance of color centers. 8. Covalent effects in e.p.r. spectra - Hyperfine interactions. Index.

**Solid state physics literature guides. Vol. 2. Semiconductors, preparation, crystal growth and selected properties.** Edited by T. F. CONNOLLY. Pp. xiv + 218. New York: Plenum Press, 1972. Price \$16.50

**Solid state physics literature guides. Vol. 4. Electrical properties of solids — surface preparation and methods of measurement.** Edited by T. F. CONNOLLY. Pp. xxiii + 96. New York: Plenum Press, 1972. Price \$16.50.

These guides to the literature are based on the documentation of these subjects collected by the Research Materials Information Centre of the Solid State Division of the Oak Ridge National Laboratory. Each volume is a comprehensive bibliography of its subject, listing papers, reports, theses, patents *et cetera* up to 1971. The information has been catalogued and arranged in a way that is quick and easy to use, and the volumes should prove to be extremely useful works of reference.