lamps, microwave oscillators and bubble memories is well known. The volume contains 34 papers and four letters from experts ranging from thermodynamic evaluation and calculation of phase diagrams of III–V compounds to various aspects of L.P.E. growth under equilibrium conditions and in a kinetically controlled regime.

The cause of failure in both heterojunction and bubble devices is attributable to residual stress due to lattice mismatch, and several valuable papers are devoted to crystallographic properties and dislocations.

The authors are to be congratulated for bringing together an extensive number of separate papers and letters with a coherence that makes the volume readable and of considerable interest to those concerned either directly or indirectly with aspects of liquid-phase epitaxy.

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Metallphysik. By G. E. R. SCHULZE. Pp. xviii + 494, Figs. 272, Tables 34. Vienna, New York: Springer-Verlag, 1974. Price S 698, DM 98, approx. US $40.00.

The book *Metallphysik*, written in German, is an advanced textbook designed for basic studies in metal physics. An introductory chapter on the metallic state covering crystal structure and electron theory is followed by four chapters dealing with details of: 1. The metallic state – space lattice, symmetry properties, lattice structure of metals. solid solution, thermodynamic equilibrium, phase diagram, crystallization and lattice defects; 2. Mechanical and thermal properties of perfect crystals – elastic properties and lattice vibrations; 3. Properties of real crystals – diffusion, theory of dislocations, lattice energy, twinning, martensite formation and metal-physics principles of improving mechanical properties; and 4. Electrical and magnetical properties – energy levels of electrons, conductors, semiconductors, insulators, metallic bonds, magnetism and theory of ferromagnetism.

The treatment of the topics listed here is often profound and the book includes 34 tables, 277 figures, about 150 references and indexes in German, English and Russian. Books from Springer are usually of a very high standard and this is no exception.

Professor Gustav E. R. Schulze has produced this second edition of his book after many years of lecturing in experimental physics at the University of Dresden, which has definitely influenced in a positive way the pedagogical quality. The use of the same system for marking chapters, formulae and figures may however in some cases be confusing.

Although the book is specially written for university students, one would like to recommend it to other people interested in the field, and with its systematic and broad treatment of a wide range of subjects it will certainly serve as a reference book in libraries.

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