ard texts and treatises listed at the end of each chapter.

The reviewer wants to emphasize again that in his opinion the authors have provided a real service in bringing together in one book such a wealth of topics and in orienting their presentation to applications and to the solution of problems in the real world of atomic physics and gas dynamics.

TECHNICAL MAN'S HANDBOOK

APPLICATIONS DES ONDES HYPERFREQUENCES ET INFRAROUGES A L'ETUDE DES PLASMAS, By R. Papoular and J. Balazard. 145 pp. Dunod, Paris, 1965. Paper 19F.

by Herbert Malamud

I found the book rather disappointing for several reasons. The discussion of microwave methods is rather broad, covering waves in free space (including the methods used for plasmas with spatial density variations), methods in resonant cavities and wave-guides, and diffusion of EM waves through plasmas. Bremsstrahlung and gyromagnetic radiation as well as multipolar resonance waves are also covered, as are, in general, interference techniques. The interferometer method using lasers is barely mentioned, though references are given to the literature.

My quarrel with the book is twofold. First, a book giving equal billing in the title to infrared and microwave should give much more inside space to infrared methods than this one does. All of the recent methods using electron and ion scattering of laser light are neglected, in spite of the fact that these methods contain (perhaps unrealized) potentialities for diagnosis. But these methods, more recently developed than microwave methods are less well reported in books as yet, and may thus be expected to be more interesting to researchers, than the more venerable microwave methods.

Second, in what is covered, the authors quote equations, describe the conditions under which they may be applicable, and go on to the next subject. These equations are not derived and this of course makes the book nearly useless for tutorial purposes. This is not to criticize its definite value as a reference for workers in the field, of course, but it does limit the audience to which it might otherwise appeal.

I would have preferred a longer book, specializing in either microwave or infrared methods, rather than a technical man's handbook which tries to cover both.

But then, who is to say that my preference is that of the audience to which the authors wish to appeal? My penchant for tutorial books could be interpreted (unkindly) to show that my years working in plasma physics have not taught me enough. And the omission of the latest in infrared diagnostics could be excused on the grounds that these methods are not yet developed to the point of being practical.

The book does not contain a subject or author index. What excuse can one find for this?

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Herbert Malamud, who is associated with the Radiation Research Corporation, has written extensively on the physics of plasmas and gases.

FERMI SURFACE GEOMETRY

THE DYNAMICS OF CONDUCTION ELECTRONS. By A. B. Pippard. 150 pp. Gordon and Breach, New York, 1965. Cloth $4.95, paper $1.95.

by Gerald G. Johnson, Jr.

With the publication of this book, Dr. Pippard, who pioneered investigations of the detailed Fermi surface of copper, has written a reference that should certainly find its way into the hands of every physicist interested in the Fermi surface. The author has skillfully combined the description of these measurements with sophisticated mathematical methods, to give a comprehensive reference for the topic. The book is unique, however, in at least one respect—the cost, which is about one third that of other comprehensive references. It is certainly a relief to

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