Semiconductor encyclopedia—once again

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Landolt-Börnstein. *Numerical Data and Functional Relationships in Science and Technology.* New Series/Editor-in-Chief O. Madelung, Group III: Crystal and Solid State Physics. Volume 22: Semiconductors. Supplements and Extensions to Volume III/17/Eds. O. Madelung and M. Schulz, Subvolume a: Intrinsic Properties of Group IV Elements and III–V, II–VI and I–VII Compounds. Springer-Verlag, Berlin; Heidelberg; New York; London; Paris; Tokyo; 1987, pp. 451.

It was only very recently, in 1985 [cf., the review in Usp. Fiz. Nauk **151**, 379 (1987), Sov. Phys. Usp. **30**, 195 (1987)] that the concluding volume 17 of the Landolt-Börnstein reference series on semiconductors was published. That completed a unique publication which included the reference material accumulated towards the early 80s on the physical properties and the structural and technological characteristics of practically all the semiconductors known up to that time. But the science of semiconductors is developing very rapidly. During the period from 1981 to 1985 much new information has appeared both on classical semiconductors, and also on their alloys, many physical characteristics of known materials have become known much more precisely. Therefore the publishers of the Landolt-Börnstein reference series have decided to issue a supplementary volume 22.

This series begins with subvolume III/22a "Intrinsic Properties of Group IV Elements and III–V, II–VI and I–VII Compounds." In the immediate future the subvolume III–22b "Impurities and Defects in Elements of the IV Group and III–V Compounds" will be published. Publication of continuation of this volume is also being planned.

We now turn to the contents of subvolume II/22a. Here a description is given of the electronic, lattice, transport and optical properties of the following semiconductors: diamond, silicon, germanium, gray tin, silicon carbide, silicon-germanium alloys, nitrides, phosphides and arsenides of boron, aluminum, gallium, and indium, antimonides of aluminum, gallium and indium, oxides, sulphides selenides and tellurides of zinc, cadmium and mercury, chlorides, bromides and iodides of copper and silver. Moreover in the same subvolume is assembled the information up to 1986 of alloys of types $III_x - III_{1-x} - V$, $III - V_{1-x} - V_x$, $III_x - III_{1-x} - V_y - V_{1-y}$, $III_{1-x-y} - III_x - III_y - V$ and $(III - V)_{1-x} - IV_x$.

This listing alone shows that before us we have unique reference material assembled from many original publications (of which a detailed bibliography is presented), needed by all specialists working in the field of semiconductors.

Translated by G. M. Volkoff