

## BOOK REVIEWS

blocks of scientific and technological knowledge and in establishing the essential links between the various factors involved in the generation and diffusion of new information technologies.

The authors conclude that in order to compensate for decline in technology inflows and to overcome other new barriers being erected, developing countries need to strengthen their own technological capabilities through research and development efforts and also integrate themselves with the global technology networks. If such strategies are adopted, the first-tier NIEs have a chance to compete with the OECD countries, at least, in some areas.

China and India may have advanced research capabilities in special areas of national priority, but such research has not significantly impacted the commercial segment. New policies are in the anvil and international firms may be attracted to these countries. However, the electronic industries in these two countries are isolated enclaves in still very poor rural societies. Under such conditions, these two countries will face severe constraints in becoming major competitors in the global context.

The other NIEs are stuck with very low levels of industrialization and outdated industrial structures and hence may find entering global electronic markets in a significant way out of reach for the present; they may have to first carry out necessary basic economic and social reforms.

The book provides an unbiased, well-structured, argued analysis of the electronics industry in the newly industrializing economies, their sectoral strengths and weaknesses combined with useful statistics. It also presents the reader with an illuminating account of the character of the newly emerging entry barriers and the global dynamics of industrial development and compe-

tion in the electronics industry—a very useful reference publication.

C. R. SUBRAMANIAN

*Rajam House  
6 Palace Cross Road  
Bangalore 560 020, India*

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**Biochemical Methods for Agricultural Sciences.** S. Sadashivam and A. Manikam eds. Wiley Eastern Ltd., 4835/24, Ansars Road, Doryaganj, New Delhi 110 002, 1992. 246 pp.

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This book describes quantitative estimation of plant constituents in a stepwise manner. In this aspect, the book forms a good reference for estimation. However, in most places, the sources of error in estimation and the methods and precautions necessary for obtaining reliable estimates are not discussed. The book would be a good practical guide if these aspects are covered in detail in future editions.

Procedures for the estimation of carbohydrates include a discussion of colour reactions of carbohydrates, determination of amylose, cellulose, hemicellulose, fructose inulin, pectic substances and crude fibre.

Estimation of oils, free fatty acids, saponification, iodine and peroxide values of oils and fats as well as identification and quantification of fatty acids are discussed under lipids of plant materials. The methods described are brief and do not present details of calculation.

Proteins and amino acids are discussed in greater detail. A variety of procedures starting from the identification of proteins to more recent methods of blotting and *in vitro* translation assays are described. The section on estimation of lysine, proline and other essential amino acids

is of particular use in evaluating food grains. The principle of these techniques, however, is brief.

The procedure for the assay of 27 of the commonly found plant enzymes is discussed in a separate chapter. The choice of enzymes is appropriate. Methods for analysis of isoenzyme content are also included with specific reference to nine enzymes.

The discussion on nucleic acids begins with procedures for cultivation of  $\lambda$ -phage and extraction of  $\lambda$ -DNA. Methods are also presented for plasmid isolation, restriction digestion, southern blotting and DNA gel electrophoresis. In view of the several excellent monographs available for molecular biological techniques, the chapter could have addressed problems more relevant to agricultural sciences such as detection and estimation of parasite-specific nucleic acid.

Procedures for estimation of vitamins, pigments, phenolics, anti-nutritional factors are described in separate chapters. The chapter on plant hormones is rather short and does not include the more recent methods of estimation using high performance liquid chromatography.

Cell fractionation procedures appear at the end of the book, although, these are the initial steps for most of the biochemical procedures covered in the book.

The lack of illustrative example with experimentally obtained realistic data, lack of coverage of precautions necessary for reliable estimation are partially compensated by extensive reference to literature.

The book is a useful reference material for post-graduate students.

H. S. SAVITHRI

*Department of Biochemistry  
Indian Institute of Science  
Bangalore 560 012, India*