

- MONK, L., MCPHAIL, D. B., GOODMAN, B. A., DAVIES, H. V. : An electron spin resonance investigation of internal rust spot, a physiological disorder of the potato tuber. – *Free Rad. Res. Commun.* **5** : 345–350, 1989.
- PATE, J. S. : Movement of nitrogenous solutes in plants. – *Atomic Agency* **341** : 165–187, 1971.
- PETHIG, R. : *Dielectric and Electronic Properties of Biological Materials*. – John Wiley and Sons, Chichester – New York 1979.
- POOLE, R. J. : The influence of the intracellular potential on potassium uptake by beetroot tissue. – *J. gen. Physiol.* **49** : 551–563, 1966.
- PRICE, C. A. : *Molecular Approaches to Plant Physiology*. – McGraw-Hill Book Company, New York 1970.
- SPANSWICK, R. M., STOLAREK, J., WILLIAMS, E. J. : The membrane potential of *Nitella translucens*. – *J. exp. Bot.* **18** : 1–16, 1967.
- SPANSWICK, R. M., WILLIAMS, E. J. : Electrical potentials and Na, K and Cl concentrations in the vacuole and cytoplasm of *Nitella translucens*. – *J. exp. Bot.* **15** : 193–206, 1964.
- SUTCLIFFE, J. E. : *Mineral Salts Absorption in Plants*. – Pergamon Press, New York–Oxford–London–Paris 1962.
- ZIMMERMANN, U. : Electric field-mediated fusion and related electrical phenomena. – *Biochim. biophys. Acta* **694** : 227–277, 1982.

BOOK REVIEW

NICHIPOROVICH, A. A. (ed.) : *FOTOSINTEZ I PRODUKSIONNYI PROTSESS*. [PHOTOSYNTHESIS AND THE PRODUCTION PROCESS.] – Nauka, Moskva 1988, 278 pp. 4.20 Rbl. [In Russian]

. The book contains new results of studies and outlines the perspectives of the theory of plant photosynthetic activity as the basis of the plant production process. The main features of the theory are explained by its author A. A. Nichiporovich in the first introductory paper. The following 30 contributions written by coworkers or pupils of A. A. Nichiporovich, are a further elaboration of the production theory. They are arranged in five parts concerning the regulatory systems of primary photosynthetic processes on the chloroplast-cell level, metabolic aspects of plant photosynthetic activity, the role of light and growth in plant photosynthetic activities and productivity, systems of optimization of photosynthetic activity and productivity, and genetic aspects of photosynthetic plant activities in relation to productivity.

The theory of plant photosynthetic productivity generalizes our fundamental knowledge and it stimulates research on different levels. Unfortunately, the book was written only in Russian. It is of interest for plant physiologists, biochemists, biophysicists, agronomists and geneticists.

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