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Rama Das, V.S.: **Photosynthesis. Regulation Under Varying Light Regimes**. – Science Publishers, Enfield – Plymouth 2004. ISBN 1-57808-343-5. VIII + 175 pp., USD 65.00.

The reviewed hard-bound book contains 121 pages of text. The rest is list of cited papers and good indexes (author and subject). This shows that it is more a textbook or introductory text for researchers interested in control of photosynthetic processes than a monograph. Seven chapters contain all the basic necessary information.

The introductory chapter explains main facts – photosynthetic pigments and photon harvesting, composition and structure of photosystems (antennae, components, thylakoid structure, core complexes, reaction centres). Chapter 2 deals with the occurrence of photoinhibition of both photosystems, its main mechanism, *i.e.* the degradation of D1 protein and its re-synthesis. Next chapter explains the photoprotection mechanisms (thermal dissipation of excitation energy, xanthophyll cycle) and plant response to related stresses such as lipid oxidation stress, production of active oxygen and scavenging it. In chapter 4 leaf movements regulating photon interception (paraheliotropism and diaheliotropism) are shown, as well as sites of perception of signals for these movements and their mechanisms. Chapter 5 deals with acclimation of photosynthesis to irradiation environments. Transgenic and biotechnological aspects are the topics of chapter 6.

Chapter 7 contains brief concluding remarks (over two pages). The author included also some recent findings (*e.g.* lutein epoxide cycle) and explained terms not always clearly used in the literature (*e.g.* why Mehler peroxidase reaction = water-water cycle).

The explanations are pedagogically clear, which shows the teaching experience of the author. The text is accompanied by not too many figures, tables, and schemes that help in understanding the more complicated facts. Cited are almost 600 papers. I wonder why only three of them are those published in *Photosynthetica* because the journal presents many papers dealing with this interesting topic. I miss also some of the papers which are often cited in articles on photoinhibition.

The editorial work was certainly not very careful. There are many misprints and inaccuracies both in the text and in references. I wonder why the author did not unify nomenclature – for example, he uses alternately both old-fashioned and modern terms (light intensity, light level, irradiance).

Generally, the book will certainly find its readers among students and young researchers. I only regret that its production was not done with more care.

Z. ŠESTÁK (Praha)