

Baker, N.R., Bowyer, J.R. (ed.): **Photoinhibition of Photosynthesis. From Molecular Mechanisms to the Field.** - Bios Scientific Publishers, Oxford 1994. 471 pp. Hardcover 70.00 £. ISBN 1 872748 03 1.

The book reviewed belongs to the publications of the Environmental Plant Biology Series which is devoted to a variety of plant-related topics. Within the series the publications on the role of abscisic acid, plant water deficit, plant-pests relations, and carbon partitioning in plants have been issued so far. A newly published book on photoinhibition of photosynthesis focuses this phenomenon ranging from the molecular level to the photoinhibition in plant communities. The book is divided into 26 chapters the authors of which are leading persons in their particular fields of science. Since there are two strong groups in the scientific community involved to photoinhibition studies: 1) physicists with molecular biologists studying the basis of photoinhibition *in vitro* and 2) plant physiologists with ecologists studying its consequences in existing plant systems (*in vitro*) under real climate the same polarity is apparent in the book content. On one hand a strong effort is evident from the first group of authors to elucidate the changes in structure and function of light harvesting complexes, reaction centers, D1 protein, ELIPs and cytochrome *b* during photoinhibition (Chapters 1 - 2). Great attention is also devoted to quenching mechanisms, especially those of non-photochemical quenching, *e.g.* zeaxanthin formation, scavengers, cytochrome *b* (Chapters 4 - 9). On the other hand the second group of authors relate the extent of photoinhibition to light environment, drought stress, low temperature and other site-related characteristics (Chapters 13 - 26). All chapters are balanced in their extent, easy-to-follow and well documented with numerous figures and tables. A subject index is provided. In spite of a rapid progress especially in the research of molecular basis of plant photochemistry the book reviewed is an excellent compendium of recent knowledge on functioning of the two photosystems under excess light and the background of photoinhibition. It can be recommended to advanced university students and scientists interested in plant photoinhibition.

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