

Hoffmann, P., Knobloch, D., Kämpfe, L., Meißner, K., Schenke, G., Schöneich, J., Schröder, H., Sedlag, U., Heinrich, D., in co-operation with Gemeinhardt, H.-D., Heinzel, K., König, I., Schleicher, S.: **Biologie. Lehrbuch für Sekundarstufe II.** – Volk und Wissen Verlag, Berlin 1996. ISBN 3-06-011101-4. 376 pp.

It is not customary to report on a textbook for secondary schools. However, the chapter on mass and energy exchange (Hoffmann and Knobloch) may be useful also for the readers of *Photosynthetica*. It opens with useful data and general information on mass composition of the universe, and passes over sun-driven hydrogen cycle just to photosynthesis (chlorophyll structure, photosynthetic pathways, electron transport chain, photorespiration, photosynthate formation, transport and storage, C₃ and C₄ pathways of CO₂ fixation, biological and environmental factors of photosynthesis, evolution of photosynthesis, photosynthetic bacteria, oxygenic photosynthesis and chemosynthesis), respiration (interrelationships between photosynthesis and respiration, mitochondria structure and functioning, glycolysis, citric acid cycle and oxidative decarboxylation of pyruvate, *etc.*) and fermentation (alcoholic and lactic fermentation). Further, the chapter deals with gas exchange in plants and animals, and mass exchange and energy economy of humans and animals.

Beside this, the textbook contains further seven chapters: Cell biology (microscopy, plant and animal

cells, cell biochemistry, unicellular and multicellular organisms, *etc.*). Genetics (molecular bases of heredity, chromosomes, mutations, use of new genetic findings, human genetics, *etc.*). Propagation (animal and human evolution). Immunobiology (*e.g.*, infectious diseases, defense mechanisms, immunity). Excitability, information treatment, and behaviour (nervous system, hormones, social behaviour of animals and humans). Ecology (abiotic environmental factors, plants as food, secondary consumers, population ecology, synecology, waters, forests, croplands, world-wide ecological problems). Bioevolution (*e.g.*, origin of life, evolution of organisms, evolution of mankind).

The textbook is accompanied with a short subject index; abundant schemes, tables, and figures make it self-explanatory. Like other first-rate textbooks, this one may be useful as a source of inspiration for scientists reading lectures, as well as teachers and graduate students interested in general biology.

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