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V průběhu rozkladu březového dřeva celulóзовorní houbou *Piptoporus betulinus* byl sledován postup syntézy humusových látek. Se stupněm rozkladu trvale roste ve dřevu podíl vysokomolekulárních huminových kyselin na úkor fulvokyselin, jejichž obsah se v průběhu hnědé hniloby úměrně zmenšuje. V průběhu bílé hniloby vyvolané houbami produkujícími lakkázu se vysokomolekulární složky humusu ve dřevu nehromadí, i když mají houby k dispozici vhodné fenolické substráty; nízkomolekulární frakce fulvokyselin trvale převyšuje frakci kyselin huminových. Úloha lakkázy při stěpení ligninu a při syntéze humusových látek je problematická.

BOOK REVIEW

STREET, H. E. (ed.): **Tissue Culture and Plant Science 1974.** — Academic Press, London-New York 1974. 502 pp., 7.50 £.

The proceeding volume of the Third International Congress of Plant Tissue and Cell Culture held at the University of Leicester from 21 to 26 July 1974 contains 19 papers presented in the plenary sessions and a review of 180 shorter reports and 90 research demonstrations. The papers deal with most of the important fields of plant science where tissue culture techniques are used as powerful means of advancing the research. Each paper represents a separate chapter treating a particular field mostly in the form of a review including previously unpublished work and discussion of possibilities and difficulties of further progress.

Attention is paid particularly to problems related to growth and development (cell division, growth and differentiation, regulation of organogenesis, flower initiation), to embryogenesis (in somatic, ovule and anther cultures) and to metabolic studies in cell and tissue cultures (DNA synthesis, carbohydrate utilization, nitrate assimilation, production of physiologically active substances and biotransformation of steroids). Two papers are devoted to genetical problems (genetic transformation and selection and characteristics of biochemical mutants) and two deal with phytopathological questions (tumor autonomy in crown-gall disease and use of protoplasts and separated cells in virology). The methodology of protoplast research is reviewed in a paper entitled "Technical advances in protoplast isolation, culture and fusion". In the concluding chapter prof. COCKING summarizes some of the "highlights" of the reports presented in concurrent sessions organized under 6 sections (Physiology and biochemistry, Growth and cytodifferentiation, Morphogenesis, Genetics, Tumors and parasites and Methodology).

Tissue Culture and Plant Science 1974 provides a very valuable up-to-date source of information and ideas from this relatively new area of research showing new and exciting approaches to many classical aspects of plant physiology, genetics and phytopathology. It is to be recommended to research workers and also to university students of most branches of plant science.

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