

Time-resolved fluorescence of chloroplast fragments at low temperatures

R.A. AVARMAA and R.P. TAMKIVI

Institute of Physics, Estonian S.S.R. Academy of Sciences, 202400 Tartu (U.S.S.R.)

S.M. KOCHUBEY

Institute of Plant Physiology, Ukrainian S.S.R. Academy of Sciences, 252127 Kiev (U.S.S.R.)

Low temperature (5 - 80 K) fluorescence decay curves of chloroplasts and their fragments enriched in photosystems I and II were measured at weak excitation densities. The excitation energy transfer from light-harvesting chlorophylls to the reaction centres was monitored by the wavelength dependence of the fluorescence decay times at different temperatures.

From thymine dimer to monomer by light

G. PERICHET, P. MEALLIER and B. POUYET

Laboratoires de Photochimie, Université Claude Bernard Lyon I, 43 Boulevard du 11 Novembre 1918, 69622 Villeurbanne Cédex (France)

Thymine dimer formed by irradiation of the monomer forms complexes with several metallic cations (such as Hg^{2+}). These complexes absorb at longer wavelengths than thymine dimer does. Irradiation in the absorption band of the complexes gives the thymine monomer and its metallic complexes. This reaction is analogous to the DNA photoreactivation for enzymes.

Studies on UV-induced skin reactions leading to skin tumours in experimental animals

SUNANDA D. JOSHI and S.S. RANADE

Cancer Research Institute, Parel, Bombay 400012 (India)

Experiments were performed to obtain UV-induced tumours in experimental animals. The dorsal skin of hairless Swiss mice was exposed to UV irradiation with a Philips UV tube (2537 Å) at dose levels of 10^8 - 10^9 erg mm^{-2} .