

AUTHOR INDEX

- Adir, N. and Ohad, I.
Probing for the interaction of the 32 kDa- Q_B protein with its environment by use of bifunctional cross-linking reagents (850) 264
- Albertsson, P.-Å., see Melis, A. (850) 402
- Albracht, S.P.J. and Bakker, P.T.A.
Evidence for two independent pathways of electron transfer in mitochondrial NADH:Q oxidoreductase. II. Kinetics of reoxidation of the reduced enzyme (850) 423
- Albracht, S.P.J., see Bakker, P.T.A. (850) 413
- Altwater-Mackensen, R., see Strotmann, H. (850) 90
- Amesz, J., see Vos, M. (850) 501
- Anderson, J.M., see Leong, T.-Y. (850) 57
- Arana, J.L., Gianni, H., Ravizzini, R.A. and Vallejos, R.H.
The deactivation process of the proton-ATPase in isolated chloroplasts and whole leaves (850) 294
- Bakeeva, L.E., Chumakov, K.M., Drachev, A.L., Metlina, A.L. and Skulachev, V.P.
The sodium cycle. III. *Vibrio alginolyticus* resembles *Vibrio cholerae* and some other vibrios by flagellar motor and ribosomal 5S-RNA structures (850) 466
- Bakker, P.T.A. and Albracht, S.P.J.
Evidence for two independent pathways of electron transfer in mitochondrial NADH:Q oxidoreductase. I. Pre-steady-state kinetics with NADPH (850) 413
- Bakker, P.T.A., see Albracht, S.P.J. (850) 423
- Barber, J., see Chapman, D.J. (850) 170
- Berden, J.A., see Van Dongen, M.B.M. (850) 121
- Berden, J.A., see Van Dongen, M.B.M. (850) 359
- Blankenship, R.E., see Kirmaier, C. (850) 275
- Boczar, B.A. and Prézélin, B.B.
Light- and $MgCl_2$ -dependent characteristics of four chlorophyll-protein complexes isolated from the marine dinoflagellate, *Glenodinium* sp. (850) 300
- Bohnensack, R. and Halangk, W.
Control of respiration and of motility in ejaculated bull spermatozoa (850) 72
- Boska, M., Yamagishi, A. and Sauer, K.
EPR signal II in cyanobacterial Photosystem II reaction-center complexes with and without the 40 kDa chlorophyll-binding subunit (850) 226
- Breton, J., see Tapie, P. (850) 156
- Britt, R.D., see Yachandra, V.K. (850) 324
- Bulychev, A.A., Niyazova, M.M. and Turovetsky, V.B.
Electro-induced changes of chlorophyll fluorescence in individual intact chloroplasts (850) 218
- Cammarata, K., see Radmer, R. (850) 21
- Cammarata, K., see Tamura, N. (850) 369
- Carnieri, E.G.S., see Martins, I.S. (850) 49
- Chamorovsky, S.K., see Kononenko, A.A. (850) 162
- Chapman, D.J. and Barber, J.
Analysis of plastoquinone-9 levels in appressed and non-appressed thylakoid membrane regions (850) 170
- Chekulaeva, L.N., see Kononenko, A.A. (850) 162
- Cheniae, G., see Radmer, R. (850) 21
- Cheniae, G., see Tamura, N. (850) 369
- Chen, Y.-d.
A theoretical study of double-inhibitor-titration curves in free-energy-transducing networks (850) 490
- Choquet, Y., see Tapie, P. (850) 156
- Choudhry, Z.M., Kotlyar, A.B. and Vinogradov, A.D.
Studies on the succinate dehydrogenating system. Interaction of the mitochondrial succinate-ubiquinone reductase with pyridoxal phosphate (850) 131
- Chumakov, K.M., see Bakeeva, L.E. (850) 466
- Cusanovich, M.A., see Davidson, M.W. (850) 396
- Darling, A.J., Rowell, P. and Stewart, W.D.P.
Light-induced transitions in the redox state of thioredoxin in the N_2 -fixing cyanobacterium *Anabaena cylindrica* (850) 116
- Davidson, M.W., Meyer, T.E., Cusanovich, M.A. and Knaff, D.B.
Complex formation between *Chlorobium limicola* f. *thio-sulfatophilum* c-type cytochromes (850) 396
- De Geus, J.P., see Van Dongen, M.B.M. (850) 359
- Dekker, H.L., see Sinjorgo, K.M.C. (850) 108
- Dexheimer, S.L., see Yachandra, V.K. (850) 324
- Dibrov, P.A., Kostyrko, V.A., Lazarova, R.L., Skulachev, V.P. and Smirnova, I.A.
The sodium cycle. I. Na^+ -dependent motility and modes of membrane energization in the marine alkalotolerant *Vibrio alginolyticus* (850) 449
- Dibrov, P.A., Lazarova, R.L., Skulachev, V.P. and Verkhovskaya, M.L.
The sodium cycle. II. Na^+ -coupled oxidative phosphorylation in *Vibrio alginolyticus* cells (850) 458
- Diner, B., see Tapie, P. (850) 156
- Douce, R., Neuburger, M. and Givan, C.V.
Regulation of succinate oxidation by NAD^+ in mitochondria purified from potato tubers (850) 64
- Drachev, A.L., see Bakeeva, L.E. (850) 466
- Drachev, L.A., Kaminskaya, O.P., Konstantinov, A.A., Mamedov, M.D., Samuilov, V.D., Semenov, A.Y. and Skulachev, V.P.

- Effects of electron donors and acceptors on the kinetics of the photoelectric responses in *Rhodospirillum rubrum* and *Rhodopseudomonas sphaeroides* chromatophores (850) 1
- Duysens, L.N.M., see Nuijs, A.M. (850) 286
- Duysens, L.N.M., see Nuijs, A.M. (850) 310
- Duysens, L.N.M., see Shuvalov, V.A. (850) 319
- Duysens, L.N.M., see Vos, M. (850) 501
- Emaus, R.K., Grunwald, R. and Lemasters, J.J.
Rhodamine 123 as a probe of transmembrane potential in isolated rat-liver mitochondria: spectral and metabolic properties (850) 436
- Eugênio Vercesi, A., see Fernandes Bernardes, C. (850) 41
- Eugênio Vercesi, A., see Martins, I.S. (850) 49
- Fernandes Bernardes, C., Pereira da Silva, L. and Eugênio Vercesi, A.
t-Butylhydroperoxide-induced Ca^{2+} efflux from liver mitochondria in the presence of physiological concentrations of Mg^{2+} and ATP (850) 41
- Garcia, D., Parot, P., Verméglio, A. and Madigan, M.T.
The light-harvesting complexes of a thermophilic purple sulfur photosynthetic bacterium *Chromatium tepidum* (850) 390
- Gemel, J., see Kaniuga, Z. (850) 473
- Gianni, H., see Arana, J.L. (850) 294
- Givan, C.V., see Douce, R. (850) 64
- Gleiter, H., see Homann, P.H. (850) 10
- Grunwald, R., see Emaus, R.K. (850) 436
- Guiles, R.D., see Yachandra, V.K. (850) 324
- Guiles, R.D., see Yachandra, V.K. (850) 333
- Hadikusumo, R.G., Hertzog, P.J. and Marzuki, S.
Characterization of epitopes of the yeast mitochondrial H^+ -ATPase complex recognized by monoclonal antibodies (850) 33
- Halangk, W., see Bohnensack, R. (850) 72
- Hartog, A.F., see Van Dongen, M.B.M. (850) 359
- Hatano, M., see Nozawa, T. (850) 343
- Hatano, M., see Nozawa, T. (850) 352
- Hayashi, H., see Nozawa, T. (850) 343
- Hayashi, H., see Nozawa, T. (850) 352
- Hertzog, P.J., see Hadikusumo, R.G. (850) 33
- Holten, D., see Kirmaier, C. (850) 275
- Homann, P.H., Gleiter, H., Ono, T.-a. and Inoue, Y.
Storage of abnormal oxidants ' Σ_1 ', ' Σ_2 ' and ' Σ_3 ' in photosynthetic water oxidases inhibited by Cl^- -removal (850) 10
- Inoue, Y., see Homann, P.H. (850) 10
- Inoue, Y., see Koike, H. (850) 80
- Inoue, Y., see Ono, T.-a. (850) 380
- Islam, K., see Jennings, R.C. (850) 483
- Jennings, R.C., Islam, K. and Zucchelli, G.
Spinach-thylakoid phosphorylation: studies on the kinetics of changes in photosystem antenna size, spill-over and phosphorylation of light-harvesting chlorophyll *a/b* protein (850) 483
- Joppe, H.L.P., see Nuijs, A.M. (850) 286
- Kagawa, Y., see Yohda, M. (850) 429
- Kaminskaya, O.P., see Drachev, L.A. (850) 1
- Kaniuga, Z., Gemel, J. and Zablocka, B.
Fatty-acid-induced release of manganese from chloroplasts (850) 473
- Kiefer, K., see Strotmann, H. (850) 90
- Kirmaier, C., Blankenship, R.E. and Holten, D.
Formation and decay of radical-pair state P^+I^- in *Chloroflexus aurantiacus* reaction centers (850) 275
- Kitagawa, T., see Sone, N. (850) 139
- Klein, M.P., see Yachandra, V.K. (850) 324
- Klein, M.P., see Yachandra, V.K. (850) 333
- Knaff, D.B., see Davidson, M.W. (850) 396
- Koike, H., Siderer, Y., Ono, T.-a. and Inoue, Y.
Assignment of thermoluminescence A band to $\text{S}_3\text{Q}_\text{A}^-$ charge recombination: sequential stabilization of S_3 and Q_A^- by a two-step illumination at different temperatures (850) 80
- Kononenko, A.A., Lukashov, E.P., Maximychev, A.V., Chomarovskiy, S.K., Rubin, A.B., Timashev, S.F. and Chekulaeva, L.N.
Oriented purple-membrane films as a probe for studies of the mechanism of bacteriorhodopsin functioning. I. The vectorial character of the external electric-field effect on the dark state and the photocycle of bacteriorhodopsin (850) 162
- Konstantinov, A.A., see Drachev, L.A. (850) 1
- Korver, T., see Van Dongen, M.B.M. (850) 359
- Kostyrko, V.A., see Dibrov, P.A. (850) 449
- Kotlyar, A.B., see Choudhry, Z.M. (850) 131
- Kuwabara, T., Murata, T., Miyao, M. and Murata, N.
Partial degradation of the 18-kDa protein of the photosynthetic oxygen-evolving complex: a study of a binding site (850) 146
- Lantz, S., see Tamura, N. (850) 369
- Lazarova, R.L., see Dibrov, P.A. (850) 449
- Lazarova, R.L., see Dibrov, P.A. (850) 458
- Lemasters, J.J., see Emaus, R.K. (850) 436
- Leong, T.-Y. and Anderson, J.M.
Light-quality and irradiance adaptation of the composition and function of pea-thylakoid membranes (850) 57
- Ley, A.C. and Mauzerall, D.C.
The extent of energy transfer among Photosystem II reaction centers in *Chlorella* (850) 234
- Lukashov, E.P., see Kononenko, A.A. (850) 162
- McDermott, A., see Yachandra, V.K. (850) 324
- Madigan, M.T., see Garcia, D. (850) 390
- Mamedov, M.D., see Drachev, L.A. (850) 1
- Marrs, B.L., see Richaud, P. (850) 256
- Martins, I.S., Carnieri, E.G.S. and Eugênio Vercesi, A.
Characteristics of Ca^{2+} transport by corn mitochondria (850) 49
- Marzuki, S., see Hadikusumo, R.G. (850) 33

- Mauzerall, D.C., see Ley, A.C. (850) 234
- Maximychyev, A.V., see Kononenko, A.A. (850) 162
- Melis, A., Svensson, P. and Albertsson, P.-Å.
The domain organization of the chloroplast thylakoid membrane. Localization of Photosystem I and of the cytochrome *b₆-f* complex (850) 402
- Metlina, A.L., see Bakeeva, L.E. (850) 466
- Meyer, T.E., see Davidson, M.W. (850) 396
- Miyao, M., see Kuwabara, T. (850) 146
- Muijsers, A.O., see Sinjorgo, K.M.C. (850) 108
- Murata, N., see Kuwabara, T. (850) 146
- Murata, T., see Kuwabara, T. (850) 146
- Neuburger, M., see Douce, R. (850) 64
- Niyazova, M.M., see Bulychev, A.A. (850) 218
- Nozawa, T., Ohta, M., Hatano, M., Hayashi, H. and Shimada, K.
Detergent effects on the reaction center-B890 complex of *Chromatium vinosum* and the mode of bacteriochlorophyll binding as revealed from circular dichroism and nuclear magnetic resonance spectroscopy (850) 343
- Nozawa, T., Ohta, M., Hatano, M., Hayashi, H., Tasumi, M. and Shimada, K.
Motions and structures of chromatophore of a photosynthetic bacterium (*Chromatium vinosum*) as revealed from carbon-13 and phosphorus-31 NMR (850) 352
- Nuijs, A.M., Shuvalov, V.A., Van Gorkom, H.J., Plijter, J.J. and Duysens, L.N.M.
Picosecond absorbance difference spectroscopy on the primary reactions and the antenna-excited states in Photosystem I particles (850) 310
- Nuijs, A.M., Van Grondelle, R., Joppe, H.L.P., Van Bochove, A.C. and Duysens, L.N.M.
A picosecond-absorption study on bacteriochlorophyll excitation, trapping and primary-charge separation in chromatophores of *Rhodospirillum rubrum* (850) 286
- Nuijs, A.M., see Shuvalov, V.A. (850) 319
- Ogura, T., see Sone, N. (850) 139
- Ohad, I., see Adir, N. (850) 264
- Ohta, M., see Nozawa, T. (850) 343
- Ohta, M., see Nozawa, T. (850) 352
- Ollinger, O., see Radmer, R. (850) 21
- Ono, T.-a. and Inoue, Y.
Effects of removal and reconstitution of the extrinsic 33, 24 and 16 kDa proteins on flash oxygen yield in Photosystem II particles (850) 380
- Ono, T.-a., see Homann, P.H. (850) 10
- Ono, T.-a., see Koike, H. (850) 80
- Paradies, G. and Ruggiero, F.M.
Characterization of the α -cyanocinnamate binding site in rat heart mitochondria and in submitochondrial particles (850) 249
- Parot, P., see Garcia, D. (850) 390
- Parson, W.W., see Woodbury, N.W. (850) 197
- Pereira da Silva, L., see Fernandes Bernardes, C. (850) 41
- Plijter, J.J., see Nuijs, A.M. (850) 310
- Prézelin, B.B., see Boczar, B.A. (850) 300
- Radmer, R., Cammarata, K., Tamura, N., Ollinger, O. and Cheniae, G.
Depletion of Photosystem II-extrinsic proteins. I. Effects on O₂- and N₂-flash yields and steady-state O₂ evolution (850) 21
- Radmer, R., see Tamura, N. (850) 369
- Ravizzini, R.A., see Arana, J.L. (850) 294
- Renger, G. and Weiss, W.
Studies on the nature of the water-oxidizing enzyme. III. Spectral characterization of the intermediary redox states in the water-oxidizing enzyme system Y (850) 184
- Renger, G., see Weiss, W. (850) 173
- Richaud, P., Marrs, B.L. and Verméglio, A.
Two modes of interaction between photosynthetic and respiratory electron chains in whole cells of *Rhodospseudomonas capsulata* (850) 256
- Rowell, P., see Darling, A.J. (850) 116
- Rubin, A.B., see Kononenko, A.A. (850) 162
- Ruggiero, F.M., see Paradies, G. (850) 249
- Samuilov, V.D., see Drachev, L.A. (850) 1
- Sauer, K., see Boska, M. (850) 226
- Sauer, K., see Yachandra, V.K. (850) 324
- Sauer, K., see Yachandra, V.K. (850) 333
- Semenov, A.Y., see Drachev, L.A. (850) 1
- Sharp, R.R., see Srinivasan, A.N. (850) 211
- Shimada, K., see Nozawa, T. (850) 343
- Shimada, K., see Nozawa, T. (850) 352
- Shuvalov, V.A., Nuijs, A.M., Van Gorkom, H.J., Smit, H.W.J. and Duysens, L.N.M.
Picosecond absorbance changes upon selective excitation of the primary electron donor P-700 in Photosystem I (850) 319
- Shuvalov, V.A., see Nuijs, A.M. (850) 310
- Siderer, Y., see Koike, H. (850) 80
- Sinjorgo, K.M.C., Steinebach, O.M., Dekker, H.L. and Muijsers, A.O.
The effects of pH and ionic strength on cytochrome *c* oxidase steady-state kinetics reveal a catalytic and a non-catalytic interaction domain for cytochrome *c* (850) 108
- Skulachev, V.P., see Bakeeva, L.E. (850) 466
- Skulachev, V.P., see Dibrov, P.A. (850) 449
- Skulachev, V.P., see Dibrov, P.A. (850) 458
- Skulachev, V.P., see Drachev, L.A. (850) 1
- Smirnova, I.A., see Dibrov, P.A. (850) 449
- Smit, H.W.J., see Shuvalov, V.A. (850) 319
- Sone, N., Ogura, T. and Kitagawa, T.
Iron-histidine stretching Raman line and enzymic activities of bovine and bacterial cytochrome *c* oxidases (850) 139
- Srinivasan, A.N. and Sharp, R.R.
Flash-induced enhancements in the proton NMR relaxation rate of Photosystem II particles (850) 211
- Steinebach, O.M., see Sinjorgo, K.M.C. (850) 108
- Stemler, A.
Carbonic anhydrase associated with thylakoids and Photosystem II particles from maize (850) 97
- Stewart, W.D.P., see Darling, A.J. (850) 116
- Strotmann, H., Kiefer, K. and Altwater-Mackensen, R.

- Equilibration of the ATPase reaction of chloroplasts at transition from strong light to weak light (850) 90
- Svensson, P., see Melis, A. (850) 402
- Tamura, N., Radmer, R., Lantz, S., Cammarata, K. and Cheniae, G.
Depletion of Photosystem II-extrinsic proteins. II. Analysis of the PS II/water-oxidizing complex by measurements of *N,N,N',N'*-tetramethyl-*p*-phenylenediamine oxidation following an actinic flash (850) 369
- Tamura, N., see Radmer, R. (850) 21
- Tapie, P., Choquet, Y., Wollman, F.-A., Diner, B. and Breton, J.
Orientation of the pigments in Photosystem II: a low-temperature linear dichroism and polarized fluorescence emission study of chlorophyll-protein complexes isolated from *Chlamydomonas reinhardtii* (850) 156
- Tasumi, M., see Nozawa, T. (850) 352
- Timashev, S.F., see Kononenko, A.A. (850) 162
- Turovetsky, V.B., see Bulychev, A.A. (850) 218
- Vallejos, R.H., see Arana, J.L. (850) 294
- Van Bochove, A.C., see Nuijs, A.M. (850) 286
- Van de Poll, D., see Vos, M. (850) 501
- Van der Kooij, F.W., see Vos, M. (850) 501
- Van Dongen, M.B.M. and Berden, J.A.
Demonstration of two exchangeable non-catalytic and two cooperative catalytic sites in isolated bovine heart mitochondrial F_1 , using the photoaffinity labels [2- ^3H]8-azido-ATP and [2- ^3H]8-azido-ADP (850) 121
- Van Dongen, M.B.M., De Geus, J.P., Korver, T., Hartog, A.F. and Berden, J.A.
Binding and hydrolysis of 2-azido-ATP and 8-azido-ATP by isolated mitochondrial F_1 : characterisation of high-affinity binding sites (850) 359
- Van Gorkom, H.J., see Nuijs, A.M. (850) 310
- Van Gorkom, H.J., see Shuvalov, V.A. (850) 319
- Van Grondelle, R., see Nuijs, A.M. (850) 286
- Van Grondelle, R., see Vos, M. (850) 501
- Verkhovskaya, M.L., see Dibrov, P.A. (850) 458
- Verméglio, A., see Garcia, D. (850) 390
- Verméglio, A., see Richaud, P. (850) 256
- Vinogradov, A.D., see Choudhry, Z.M. (850) 131
- Vos, M., Van Grondelle, R., Van der Kooij, F.W., Van de Poll, D., Amesz, J. and Duysens, L.N.M.
Singlet-singlet annihilation at low temperatures in the antenna of purple bacteria (850) 501
- Weiss, W. and Renger, G.
Studies on the nature of the water-oxidizing enzyme. II. On the functional connection between the reaction-center complex and the water-oxidizing enzyme system Y in Photosystem II (850) 173
- Weiss, W., see Renger, G. (850) 184
- Wollman, F.-A., see Tapie, P. (850) 156
- Woodbury, N.W. and Parson, W.W.
Nanosecond fluorescence from chromatophores of *Rhodospseudomonas sphaeroides* and *Rhodospirillum rubrum* (850) 197
- Yachandra, V.K., Guiles, R.D., McDermott, A., Britt, R.D., Dexheimer, S.L., Sauer, K. and Klein, M.P.
The state of manganese in the photosynthetic apparatus. 4. Structure of the manganese complex in Photosystem II studied using EXAFS spectroscopy. The S_1 state of the O_2 -evolving Photosystem II complex from spinach (850) 324
- Yachandra, V.K., Guiles, R.D., Sauer, K. and Klein, M.P.
The state of manganese in the photosynthetic apparatus. 5. The chloride effect in photosynthetic oxygen evolution. Is halide coordinated to the EPR-active manganese in the O_2 -evolving complex? Studies of the substructure of the low-temperature multiline EPR signal (850) 333
- Yamagishi, A., see Boska, M. (850) 226
- Yohda, M., Kagawa, Y. and Yoshida, M.
The synthesis of enzyme-bound ATP by the F_1 -ATPase from the thermophilic bacterium PS3 in the presence of organic solvents (850) 429
- Yoshida, M., see Yohda, M. (850) 429
- Zablocka, B., see Kaniuga, Z. (850) 473
- Zucchelli, G., see Jennings, R.C. (850) 483