

Author index

- Allen, J.F. and Melis, A.
The rate of P-700 photooxidation under continuous illumination is independent of State 1–State 2 transitions in the green alga *Scenedesmus obliquus* (933) 95
- Amesz, J., see Vos, M. (933) 132
- Astier, C., see Kirilovsky, D. (933) 124
- Barber, J., see Chapman, D.J. (933) 423
- Bertrand, P., Guigliarelli, B., Gayda, J.-P., Sétif, P. and Mathis, P.
An interpretation of the peculiar magnetic properties of center X in Photosystem I in terms of a 2Fe-2S cluster (933) 393
- Biaudet, P., De Kouchkovsky, F. and Haraux, F.
 Δ pH-activation of the thiol-modified chloroplast ATP hydrolase. Nucleotide binding effects (933) 487
- Bisaccia, F., Indiveri, C. and Palmieri, F.
Purification and reconstitution of two anion carriers from rat liver mitochondria: the dicarboxylate and the 2-oxoglutarate carrier (933) 229
- Boekema, E.J., Van Heel, M. and Gräber, P.
Structure of the ATP synthase from chloroplasts studied by electron microscopy and image processing (933) 365
- Bolgiano, B., Smith, L. and Davies, H.C.
Kinetics of the interaction of the cytochrome *c* oxidase of *Paracoccus denitrificans* with its own and bovine cytochrome *c* (933) 341
- Brettel, K., see Schlodder, E. (933) 22
- Camp, P.J., Miernyk, J.A. and Randall, D.D.
Some kinetic and regulatory properties of the pea chloroplast pyruvate dehydrogenase complex (933) 269
- Carter, K., see Georgiou, C.D. (933) 179
- Chapman, D.J., Gounaris, K. and Barber, J.
Electron-transport properties of the isolated D1-D2-cytochrome *b*-559 Photosystem II reaction centre (933) 423
- Choo, W.M., see Hadikusumo, R.G. (933) 212
- Cokic, P., see Georgiou, C.D. (933) 179
- Cope, M., see Wray, S. (933) 184
- Coughlan, S.J.
Chloroplast thylakoid protein phosphorylation is influenced by mutations in the cytochrome *bf* complex (933) 413
- Cox, G., see Lightowlers, R.N. (933) 241
- Creemers, F.F.M., Voorhout, W.F., Van der Krift, T.P., Leunissen-Bijvelt, J.J.M. and Verkleij, A.J.
Visualization of contact sites between outer and inner envelope membranes in isolated chloroplasts (933) 334
- Davidson, M.W., Gray, K.A., Knaff, D.B. and Krulwich, T.A.
Purification and characterization of two soluble cytochromes from the alkalophile *Bacillus firmus* RAB (933) 470
- Davies, H.C., see Bolgiano, B. (933) 341
- De Kouchkovsky, F., see Biaudet, P. (933) 487
- Delpy, D.T., see Wray, S. (933) 184
- De Silva, D.G.A.H., Powls, R. and Sykes, A.G.
Kinetic studies on redox reactions of *Scenedesmus obliquus* and *Anabaena variabilis* cytochrome *c*-553 with $[\text{Fe}(\text{CN})_6]^{3-4-}$ and $[\text{Co}(\text{phen})_3]^{3+.2+}$ and comparisons with data for the corresponding reactions of plastocyanin from the same two algal sources (933) 460
- De Vitry, C. and Wollman, F.-A.
Changes in phosphorylation of thylakoid membrane proteins in light-harvesting complex mutants from *Chlamydomonas reinhardtii* (933) 444
- Diversé-Pierluissi, M. and Krogmann, D.W.
A zeaxanthin protein from *Anacystis nidulans* (933) 372
- Drews, G., see Wacker, T. (933) 299
- Dutton, P.L., see Packham, N.K. (933) 70
- ElKurdi, A.B., see Goodhew, C.F. (933) 114
- Étienne, A.-L., see Kirilovsky, D. (933) 124
- Falkowski, P.G., Kolber, Z. and Fujita, Y.
Effect of redox state on the dynamics Photosystem II during steady-state photosynthesis in eucaryotic algae (933) 432
- Feierabend, B. and Schumann, J.
Kinetics of nucleotide exchange and of ATP hydrolysis by isolated chloroplast coupling factor CF_1 in the presence of inhibitors (933) 351
- Fischer, R., see Sandström, Å. (933) 42
- Fujita, Y., see Falkowski, P.G. (933) 432
- Fukui, Y., see Terada, H. (933) 193
- Fukushima, A., Matsuura, K., Shimada, K. and Satoh, T.
Reaction center-B870 pigment protein complexes with bound cytochromes *c*-555 and *c*-551 from *Rhodocyclus gelatinosus* (933) 399
- Gad'on, N., see Wacker, T. (933) 299
- Gayda, J.-P., see Bertrand, P. (933) 393
- Gennis, R.B., see Georgiou, C.D. (933) 179
- Georgiou, C.D., Cokic, P., Carter, K., Webster, D.A. and Gennis, R.B.
Relationships between membrane-bound cytochrome *o* from *Vitreoscilla* and that of *Escherichia coli* (933) 179
- Gibson, F., see Lightowlers, R.N. (933) 241

- Gillbro, T., see Sandström, Å. (933) 42
 Gillbro, T., see Sandström, Å. (933) 54
 Goodhew, C.F., ElKurdi, A.B. and Pettigrew, G.W.
 The microaerophilic respiration of *Campylobacter mucosalis* (933) 114
 Gounaris, K., see Chapman, D.J. (933) 423
 Gräber, P., see Boekema, E.J. (933) 365
 Gray, K.A., see Davidson, M.W. (933) 470
 Guigliarelli, B., see Bertrand, P. (933) 393
- Hadikusumo, R.G., Meltzer, S., Choo, W.M., Jean-François, M.J.B., Linnane, A.W. and Marzuki, S.
 The definition of mitochondrial H^+ ATPase assembly defects in *mit⁻* mutants of *Saccharomyces cerevisiae* with a monoclonal antibody to the enzyme complex as an assembly probe (933) 212
 Haehnel, W., see Ratajczak, R. (933) 306
 Hamamoto, T., see Ohta, S. (933) 141
 Haraux, F., see Biauudet, P. (933) 487
 Harris, D.A., see Lippe, G. (933) 1
 Harris, D.A., see Lippe, G. (933) 12
 Hatch, L., see Lightowers, R.N. (933) 241
 Hertzog, P.J., see Jean-François, M.J.B. (933) 223
 Hipkins, M.F., see Raines, C.A. (933) 172
 Hirata, H., see Ohta, S. (933) 141
 Hisabori, T., see Yohda, M. (933) 156
 Høj, P.B., see Scheller, H.V. (933) 501
 Holzwarth, A.R., see Sandström, Å. (933) 54
 Horak, A., see Horak, H. (933) 389
 Horak, H., Packer, M. and Horak, A.
 Oxidative phosphorylation in a hybrid system containing bovine heart membranes and pea mitochondrial F_1 -ATPase (933) 389
 Howitt, S.M., see Lightowers, R.N. (933) 241
 Hunter, C.N., see Vos, M. (933) 132
- Indiveri, C., see Bisaccia, F. (933) 229
 Inoue, Y., see Ohad, I. (933) 288
 Ishizuka, M., see Ohta, S. (933) 141
 Itoh, S., see Mimuro, M. (933) 478
- Jean-François, M.J.B., Hertzog, P.J. and Marzuki, S.
 Isolation and characterisation of monoclonal antibodies against hydrophobic membrane subunit 9 of the yeast mitochondrial H^+ -ATPase (933) 223
 Jean-François, M.J.B., see Hadikusumo, R.G. (933) 212
 Johansen, J.
 A possible role for hydrogen peroxide as a naturally occurring electron donor in photosynthetic oxygen evolution (933) 406
 Joliot, A., see Joliot, P. (933) 319
 Joliot, P. and Joliot, A.
 The low-potential electron-transfer chain in the cytochrome *b/f* complex (933) 319
 Jones, R.W. and Whitmarsh, J.
 Inhibition of electron transfer and the electrogenic reaction in the cytochrome *b/f* complex by 2-*n*-nonyl-4-hydroxyquinoline *N*-oxide (NQNO) and 2,5-dibromo-3-methyl-6-isopropyl-*p*-benzoquinone (DBMIB) (933) 258
 Ju-ichi, M., see Terada, H. (933) 193
- Kagawa, Y., see Ohta, S. (933) 141
 Kagawa, Y., see Yohda, M. (933) 156
 Kaneda, M., see Yamaguchi, T. (933) 450
 Katoh, S., see Shen, J.-R. (933) 358
 Kirilovsky, D., Vernotte, C., Astier, C. and Étienne, A.-L.
 Reversible and irreversible photoinhibition in herbicide-resistant mutants of *Synechocystis* 6714 (933) 124
 Kischkoweit, C., Leibl, W. and Trissl, H.-W.
 Theoretical and experimental study of trapping times and antenna organization in pea chloroplasts by means of the artificial fluorescence quencher *m*-dinitrobenzene (933) 276
 Knaff, D.B., see Davidson, M.W. (933) 470
 Koike, H., see Ohad, I. (933) 288
 Kolber, Z., see Falkowski, P.G. (933) 432
 Krämer, R., see Sambasivarao, D. (933) 200
 Krogmann, D.W., see Diversé-Pierluissi, M. (933) 372
 Krulwich, T.A., see Davidson, M.W. (933) 470
- Leibl, W., see Kischkoweit, C. (933) 276
 Lemaire, C., see Wollman, F.-A. (933) 85
 Leunissen-Bijvelt, J.J.M., see Cremers, F.F.M. (933) 334
 Lightowers, R.N., Howitt, S.M., Hatch, L., Gibson, F. and Cox, G.
 The proton pore in the *Escherichia coli* F_0F_1 -ATPase: substitution of glutamate by glutamine at position 219 of the *a*-subunit prevents F_0 -mediated proton permeability (933) 241
 Lindberg Møller, B., see Scheller, H.V. (933) 501
 Linnane, A.W., see Hadikusumo, R.G. (933) 212
 Lippe, G., Sorgato, M.C. and Harris, D.A.
 Kinetics of the release of the mitochondrial inhibitor protein. Correlation with synthesis and hydrolysis of ATP (933) 1
 Lippe, G., Sorgato, M.C. and Harris, D.A.
 The binding and release of the inhibitor protein are governed independently by ATP and membrane potential in ox-heart submitochondrial vesicles (933) 12
- Marzuki, S., see Hadikusumo, R.G. (933) 212
 Marzuki, S., see Jean-François, M.J.B. (933) 223
 Mathis, P., see Bertrand, P. (933) 393
 Matsuda, K., see Ohta, S. (933) 141
 Matsuura, K., see Fukushima, A. (933) 399
 Melis, A., see Allen, J.F. (933) 95
 Meltzer, S., see Hadikusumo, R.G. (933) 212
 Miernyk, J.A., see Camp, P.J. (933) 269
 Mimuro, M., Yamazaki, I., Itoh, S., Tamai, N. and Satoh, K.
 Dynamic fluorescence properties of D1-D2-cytochrome *b*-559 complex isolated from spinach chloroplasts: analysis by means of the time-resolved fluorescence spectra in picosecond time range (933) 478
 Mitchell, P., see West, I.C. (933) 35
 Mitchell, R., see Ratajczak, R. (933) 306

- Mueller, P., see Packham, N.K. (933) 70
- Mulder, M.M., Van der Gulden, H.M.L., Postma, P.W. and Van Dam, K.
Energetic consequences of two mutations in *Escherichia coli* K⁺ uptake systems for growth under potassium-limited conditions in the chemostat (933) 65
- Ohad, I., Koike, H., Shochat, S. and Inoue, Y.
Changes in the properties of reaction center II during the initial stages of photoinhibition as revealed by thermoluminescence measurements (933) 288
- Ohta, S., Yohda, M., Ishizuka, M., Hirata, H., Hamamoto, T., Otawara-Hamamoto, Y., Matsuda, K. and Kagawa, Y.
Sequence and over-expression of subunits of adenosine triphosphate synthase in thermophilic bacterium PS3 (933) 141
- Ohta, S., see Yohda, M. (933) 156
- Otawara-Hamamoto, Y., see Ohta, S. (933) 141
- Packer, M., see Horak, H. (933) 389
- Packham, N.K., Mueller, P. and Dutton, P.L.
Photoelectric currents across planar bilayer membranes containing bacterial reaction centers: the response under conditions of multiple reaction-center turnovers (933) 70
- Palmieri, F., see Bisaccia, F. (933) 229
- Peterson, J.B.
On the role of flavin in malate oxidation by *Azotobacter vinelandii* respiratory membranes (933) 107
- Pettigrew, G.W., see Goodhew, C.F. (933) 114
- Postma, P.W., see Mulder, M.M. (933) 65
- Powls, R., see De Silva, D.G.A.H. (933) 460
- Raines, C.A. and Hipkins, M.F.
Proteolytic enzymes stimulate both the ATP synthesis and hydrolysis functions of the chloroplast ATPase complex (933) 172
- Randall, D.D., see Camp, P.J. (933) 269
- Rao, N.M., see Sambasivarao, D. (933) 200
- Ratajczak, R., Mitchell, R. and Haehnel, W.
Properties of the oxidizing site of Photosystem I (933) 306
- Reynolds, E.O.R., see Wray, S. (933) 184
- Rich, P.R., see West, I.C. (933) 35
- Rutherford, A.W., see Styring, S. (933) 378
- Sambasivarao, D., Krämer, R., Rao, N.M. and Sitaramam, V.
ATP hydrolysis induces variable porosity to mannitol in the mitochondrial inner membrane (933) 200
- Sandström, Å., Gillbro, T., Sundström, V., Fischer, R. and Scheer, H.
Picosecond time-resolved energy transfer within C-phyco-cyanin aggregates of *Mastigocladus laminosus* (933) 42
- Sandström, Å., Gillbro, T., Sundström, V., Wendler, J. and Holzwarth, A.R.
Picosecond study of energy transfer within 18-S particles of AN 112 (a mutant of *Synechococcus* 6301) phycobilisomes (933) 54
- Satoh, K., see Mimuro, M. (933) 478
- Satoh, K., see Shen, J.-R. (933) 358
- Satoh, T., see Fukushima, A. (933) 399
- Scheer, H., see Sandström, Å. (933) 42
- Scheller, H.V., Høj, P.B., Svendsen, I. and Lindberg Møller, B.
Partial amino acid sequences of two nuclear-encoded Photosystem I polypeptides from barley (933) 501
- Schlodder, E. and Brettel, K.
Primary charge separation in closed Photosystem II with a lifetime of 11 ns. Flash-absorption spectroscopy with O₂-evolving Photosystem II complexes from *Synechococcus* (933) 22
- Schumann, J., see Feierabend, B. (933) 351
- Sétif, P., see Bertrand, P. (933) 393
- Shen, J.-R., Satoh, K. and Katoh, S.
Calcium content of oxygen-evolving Photosystem II preparations from higher plants. Effects of NaCl treatment (933) 358
- Shimada, K., see Fukushima, A. (933) 399
- Shinohara, Y., see Terada, H. (933) 193
- Shochat, S., see Ohad, I. (933) 288
- Sitaramam, V., see Sambasivarao, D. (933) 200
- Smith, L., see Bolgiano, B. (933) 341
- Sorgato, M.C., see Lippe, G. (933) 1
- Sorgato, M.C., see Lippe, G. (933) 12
- Steck, K., see Wacker, T. (933) 299
- Styring, S. and Rutherford, A.W.
Deactivation kinetics and temperature dependence of the S-state transitions in the oxygen-evolving system of Photosystem II measured by EPR spectroscopy (933) 378
- Sundström, V., see Sandström, Å. (933) 42
- Sundström, V., see Sandström, Å. (933) 54
- Svendsen, I., see Scheller, H.V. (933) 501
- Sykes, A.G., see De Silva, D.G.A.H. (933) 460
- Tamai, N., see Mimuro, M. (933) 478
- Terada, H., Fukui, Y., Shinohara, Y. and Ju-ichi, M.
Unique action of a modified weakly acidic uncoupler without an acidic group, methylated SF 6847, as an inhibitor of oxidative phosphorylation with no uncoupling activity: possible identity of uncoupler binding protein (933) 193
- Trissl, H.-W., see Kischkoweit, C. (933) 276
- Van Dam, K., see Mulder, M.M. (933) 65
- Van der Gulden, H.M.L., see Mulder, M.M. (933) 65
- Van der Kift, T.P., see Cremers, F.F.M. (933) 334
- Van Dorssen, R.J., see Vos, M. (933) 132
- Van Grondelle, R., see Vos, M. (933) 132
- Van Heel, M., see Boekema, E.J. (933) 365
- Velthuys, B.R.
Spectroscopic characterization of the acceptor state Q_A⁻ and the donor state S₂ of Photosystem II of spinach in the blue, red and near-infrared (933) 249
- Verkleij, A.J., see Cremers, F.F.M. (933) 334
- Vernotte, C., see Kirilovsky, D. (933) 124
- Voorhout, W.F., see Cremers, F.F.M. (933) 334
- Vos, M., Van Dorssen, R.J., Amesz, J., Van Grondelle, R. and Hunter, C.N.
The organization of the photosynthetic apparatus of

- Rhodobacter sphaeroides*: studies of antenna mutants using singlet-singlet quenching (933) 132
- Wacker, T., Gad'on, N., Steck, K., Welte, W. and Drews, G.
Isolation of reaction center and antenna complexes from the halophilic purple bacterium *Rhodospirillum rubrum*. Crystallization and spectroscopic investigation of the B800-850 complex (933) 299
- Webster, D.A., see Georgiou, C.D. (933) 179
- Welte, W., see Wacker, T. (933) 299
- Wendler, J., see Sandström, Å. (933) 54
- West, I.C., Mitchell, P. and Rich, P.R.
Electron conduction between *b* cytochromes of the mitochondrial respiratory chain in the presence of antimycin plus myxothiazol (933) 35
- Whitmarsh, J., see Jones, R.W. (933) 258
- Wollman, F.-A. and Lemaire, C.
Studies on kinase-controlled state transitions in Photosystem II and *b₆f* mutants from *Chlamydomonas reinhardtii* which lack quinone-binding proteins (933) 85
- Wollman, F.-A., see De Vitry, C. (933) 444
- Wray, S., Cope, M., Delpy, D.T., Wyatt, J.S. and Reynolds, E.O.R.
Characterization of the near infrared absorption spectra of cytochrome *aa₃* and haemoglobin for the non-invasive monitoring of cerebral oxygenation (933) 184
- Wyatt, J.S., see Wray, S. (933) 184
- Yamaguchi, T. and Kaneda, M.
Presence of cytochrome *b*-558 in guinea-pig alveolar macrophages – subcellular localization and relationship with NADPH oxidase (933) 450
- Yamamoto, Y.
Analysis of the relationship between the extrinsic 30-kDa protein, manganese and oxygen evolution in the thylakoid of *Chlamydomonas reinhardtii* grown under manganese-deficient conditions (933) 165
- Yamazaki, I., see Mimuro, M. (933) 478
- Yohda, M., Ohta, S., Hisabori, T. and Kagawa, Y.
Site-directed mutagenesis of stable adenosine triphosphate synthase (933) 156
- Yohda, M., see Ohta, S. (933) 141