

## AUTHOR INDEX

- Admon, A., Shahak, Y. and Avron, M.  
Adenosine triphosphate-generated transmembrane electric potential in chloroplasts (681) 405
- Åkerlund, H.-E., Jansson, C. and Andersson, B.  
Reconstitution of photosynthetic water splitting in inside-out thylakoid vesicles and identification of a participating polypeptide (681) 1
- Albracht, S.P.J., see De Vries, S. (681) 41
- Albracht, S.P.J., Albrecht-Ellmer, K.J., Schmedding, D.J.M. and Slater, E.C.  
On the active site of hydrogenase from *Chromatium vinosum* (681) 330
- Albrecht-Ellmer, K.J., see Albracht, S.P.J. (681) 330
- Amesz, J., see Kramer, H.J.M. (681) 359
- Amesz, J., see Swarthoff, T. (681) 354
- Andersson, B., see Åkerlund, H.-E. (681) 1
- Aprille, J.R., see Rulfs, J. (681) 300
- Armston, A.E., Halestrap, A.P. and Scott, R.D.  
The nature of the changes in liver mitochondrial function induced by glucagon treatment of rats. The effect of intramitochondrial volume, aging and benzyl alcohol (681) 429
- Armstrong, F.A., Henderson, R.A., Ong Wah Kim, H. and Sykes, A.G.  
Kinetic studies on the reactions of iron-sulphur proteins. V. The effect of redox-inactive chromium(III) complexes on the oxidation of the reduced form of the bifunctional *Clostridium pasteurianum* 8Fe ferredoxin by cobalt(III) complexes (681) 161
- Ashley, C.C., see Lea, T.J. (681) 130
- Avron, M., see Admon, A. (681) 405
- Bachofen, R., see Wiemken, V. (681) 72
- Bakker, E.P.  
Membrane potential in a potassium transport-negative mutant of *Escherichia coli* K-12. The distribution of rubidium in the presence of valinomycin indicates a higher potential than that of the tetraphenylphosphonium cation (681) 474
- Barber, J., see Ford, R.C. (681) 145
- Barber, J., see Packham, N.K. (681) 538
- Barr, R. and Crane, F.L.  
Sulfhydryl reagents inhibit electron transport in Photosystem II of spinach chloroplasts (681) 139
- Bar-Zvi, D. and Shavit, N.  
Modulation of the chloroplast ATPase by tight binding of nucleotides (681) 451
- Bauman, D., see Frackowiak, D. (681) 273
- Berden, J.A., see De Vries, S. (681) 41
- Berlier, Y., see Vignais P.M. (681) 519
- Bindoli, A., Cavallini, L. and Jocelyn, P.  
Mitochondrial lipid peroxidation by cumene hydroperoxide and its prevention by succinate (681) 496
- Briantais, J.-M., see Vernotte, C. (681) 11
- Camm, E.L., see Green, B.R. (681) 248
- Camm, E.L., see Green, B.R. (681) 256
- Cardenas, J., see Fernandez, E. (681) 530
- Carrillo, N., see Valle, E.M. (681) 412
- Cavallini, L., see Bindoli, A. (681) 496
- Cavallini, L., see Sorgato, M.C. (681) 319
- Chang, H.-S. and Diwan, J.J.  
K<sup>+</sup> transport in mitoplasts (681) 220
- Chapman, D.J., see Ford, R.C. (681) 145
- Cox, R.P., see Ford, R.C. (681) 145
- Crane, F.L., see Barr, R. (681) 139
- De Hollander, J.A., see Van Wielink, J.E. (681) 177
- Den Blanken, H.J. and Hoff, A.J.  
High-resolution optical absorption-difference spectra of the triplet state of the primary donor in isolated reaction centers of the photosynthetic bacteria *Rhodospseudomonas sphaeroides* R-26 and *Rhodospseudomonas viridis* measured with optically detected magnetic resonance at 1.2. K (681) 365
- Den Blanken, H.J., Van der Zwet, G.P. and Hoff, A.J.  
Study of the long-wavelength fluorescence band at 920 nm of isolated reaction centers of the photosynthetic bacterium *Rhodospseudomonas sphaeroides* R-26 with fluorescence-detected magnetic resonance in zero field (681) 375
- Desai, T.S., Tatake, V.G. and Sane, P.V.  
A slow component of delayed light emission as a function of temperature mimics glow peaks in photosynthetic membranes. Evidence for identity (681) 383
- De Vries, S., Albracht, S.P.J., Berden, J.A. and Slater, E.C.  
The pathway of electrons through QH<sub>2</sub>:cytochrome *c* oxidoreductase studied by pre-steady-state kinetics (681) 41
- De Vries, S., see Marres, C.A.M. (681) 323
- Diwan, J.J., see Chang, H.-S. (681) 220
- Draijer, J.W., see Verheul, F.E.A.M. (681) 118
- Dutton, D.L., see Tiede, D.M. (681) 191
- Ferguson, S.J., see Sorgato, M.C. (681) 319
- Fernandez, E. and Cardenas, J.  
Biochemical characterization of a singular mutant of nitrate reductase from *Chlamydomonas reinhardtii*. New evidence for a heteropolymeric enzyme structure (681) 530
- Fink, F., see Hirsch, J. (681) 15

- Fisher, R.R., see Wu, L.N.Y. (681) 388
- Ford, R.C., Chapman, D.J., Barber, J., Pedersen, J.Z. and Cox, R.P.  
Fluorescence polarization and spin-label studies of the fluidity of stromal and granal chloroplast membranes (681) 145
- Frackowiak, D., Bauman, D. and Stillman, M.J.  
Circular dichroism and magnetic circular dichroism spectra of chlorophylls in nematic liquid crystals. I. Electric and weak magnetic field effects on the dichroism spectra (681) 273
- Frunzke, K., see Zumft, W.G. (681) 459
- Fukumori, Y. and Yamanaka, T.  
Effect of cardiolipin on the enzymatic activity of *Nitrobacter agilis* cytochrome *c* oxidase (681) 305
- Galiazzo, F., see Sorgato, M.C. (681) 319
- Golbeck, J.H. and Warden, J.T.  
Electron spin resonance studies of the bound iron-sulfur centers in Photosystem I. Photoreduction of center A occurs in the absence of center B (681) 77
- Good, N.E., see Hangarter, R.P. (681) 397
- Govindjee, see Vermaas, W.F.J. (681) 242
- Green, B.R., Camm, E.L. and Van Houten, J.  
The chlorophyll-protein complexes of *Acetabularia*. A novel chlorophyll *a/b* complex which forms oligomers (681) 248
- Green, B.R. and Camm, E.L.  
The nature of the light-harvesting complex as defined by sodium dodecyl sulfate polyacrylamide gel electrophoresis (681) 256
- Guikema, J. and Sherman, L.  
Protein composition and architecture of the photosynthetic membranes from the cyanobacterium, *Anacystis nidulans* R2 (681) 440
- Halestrap, A.P., see Armston, A.E. (681) 429
- Hallenbeck, P.C., Jouanneau, Y. and Vignais, P.M.  
Purification and molecular properties of a soluble ferredoxin from *Rhodospseudomonas capsulata* (681) 168
- Hangarter, R.P. and Good, N.E.  
Energy thresholds for ATP synthesis in chloroplasts (681) 397
- Hassinen, I.E., see Kauppinen, R.A. (681) 286
- Hauska, G., see Krinner, M. (681) 110
- Heinze, B. and Wartenberg, A.  
Differently oriented chlorophylls in *Mesotaenium caldariorum* detected by microphotometrical dichroism measurements in vivo (681) 212
- Hellingwerf, K.J., see Lolkema, J.S. (681) 85
- Henderson, R.A., see Armstrong, F.A. (681) 161
- Henry, J.P., see Roisin, M.P. (681) 292
- Henry, M.F., see Vignais, P.M. (681) 519
- Hiltunen, J.K., see Kauppinen, R.A. (681) 286
- Hirsch, J., Neef, E. and Fink, F.  
The yield of chlorophyll *a* fluorescence as a means to test the various deexcitation mechanisms in the antenna system of green plants (681) 15
- Hladik, J., Pančoška, P. and Sofrová, D.  
The influence of carotenoids on the conformation of chlorophyll-protein complexes isolated from the cyanobacterium *Plectonema boryanum*. Absorption and circular dichroism study (681) 263
- Hoff, A.J., see Den Blanken, H.J. (681) 365
- Hoff, A.J., see Den Blanken, H.J. (681) 375
- Hubert, P., see Shochat, S. (681) 21
- Hurt, E., see Krinner, M. (681) 110
- Jansson, C., see Åkerlund, H.-E. (681) 1
- Jocelyn, P., see Bindoli, A. (681) 496
- Jouanneau, Y., see Hallenbeck, P.C. (681) 168
- Jursinic, P. and Stemler, A.  
A seconds range component of the reoxidation of the primary Photosystem II acceptor, Q. Effects of bicarbonate depletion in chloroplasts (681) 419
- Kauppinen, R.A., Hiltunen, J.K. and Hassinen, I.E.  
Compartmentation of citrate in relation to the regulation of glycolysis and the mitochondrial transmembrane proton electrochemical potential gradient in isolated perfused rat heart (681) 286
- Kazenova, N.V. and Samuilov, V.D.  
Exogenous cytochrome *c*-dependent light-induced membrane potential generation in *Rhodospirillum rubrum* chromatophores (681) 512
- Kendall-Tobias, M.W., see Seibert, M. (681) 504
- Kingma, H., see Kramer, H.J.M. (681) 359
- Klein, G., Satre, M., Zacci, G. and Vignais, P.V.  
Spontaneous aggregation of the mitochondrial natural ATPase inhibitor in salt solutions as demonstrated by gel filtration and neutron scattering. Application to the concomitant purification of the ATPase inhibitor and F<sub>1</sub>-ATPase (681) 226
- Kneusel, R.E., Merchant, S. and Selman, B.R.  
Properties of the solvent-stimulated ATPase activity of chloroplast coupling factor I from *Chlamydomonas reinhardtii* (681) 337
- Knobloch, K., see Neufang, H. (681) 327
- Knowles, A.F.  
Differential effects of 2,4-dinitrophenol and valinomycin (+K<sup>+</sup>) on uncoupler-stimulated ATPase of human tumor mitochondria (681) 62
- König, B.W., Veerman, E.C.I. and Van Gelder, B.F.  
The oxidation-reduction kinetics of the reaction of cytochrome *c*<sub>1</sub> with non-physiological redox agents (681) 54
- Konings, W.N., see Lolkema, J.S. (681) 85
- Kramer, H.J.M., see Swarthoff, T. (681) 354
- Kramer, H.J.M., Kingma, H., Swarthoff, T. and Ames, J.  
Prompt and delayed fluorescence in pigment-protein complexes of a green photosynthetic bacterium (681) 359
- Krinner, M., Hauska, G., Hurt, E. and Lockau, W.  
A cytochrome *f-b<sub>6</sub>* complex with plastoquinol-cytochrome *c* oxidoreductase activity from *Anabaena variabilis* (681) 110
- Lea, T.J. and Ashley, C.C.  
The effect of pH on the rate of relaxation of isolated barnacle myofibrillar bundles (681) 130

- Leeuwerik, F.J., see Van Wielink, J.E. (681) 177
- Lepinat, P.A., see Vignais, P.M. (681) 519
- Li, Y.-S., Ueng, S.-H. and Lin, B.-Y.  
Silicongstate lowers dramatically the quantum yield of chlorophyll fluorescence in situ without affecting the rate of electron transport (681) 469
- Lin, B.-Y., see Li, Y.-S. (681) 469
- Lockau, W., see Krinner, M. (681) 110
- Lolkema, J.S., Hellingwerf, K.J. and Konings, W.N.  
The effect of 'probe binding' on the quantitative determination of the proton-motive force in bacteria (681) 85
- Maison-Peteri, B., see Vernotte, C. (681) 11
- Mansfield, R.W., see Packham, N.K. (681) 538
- Marres, C.A.M., De Vries, S. and Slater, E.C.  
The site of inhibition by 5,5'-dithiobis(2-nitrobenzoate) in ubiquinol:cytochrome *c* oxidoreductase (681) 323
- Mathis, P., see Setif, P. (681) 345
- Merchant, S., see Kneusel, R.E. (681) 337
- Metz, J.G. and Miles, D.  
Use of a nuclear mutant of maize to identify components of Photosystem II (681) 95
- Miles, D., see Metz, J.G. (681) 95
- Mueller, P., see Tiede, D.M. (681) 191
- Muijsers, A.O., see Verheul, F.E.A.M. (681) 118
- Müller, H., see Neufang, H. (681) 327
- Neef, E., see Hirsch, J. (681) 15
- Neufang, H., Müller, H. and Knobloch, K.  
On the quantitation of bacteriochlorophyll in chromatophore suspensions from purple bacteria (681) 327
- Ogawa, T.  
Simple oscillations in photosynthesis of higher plants (681) 103
- Ohad, I., see Shochat, S. (681) 21
- Oltmann, L.E., see Van Wielink, J.E. (681) 177
- Ong Wah Kim, H., see Armstrong, F.A. (681) 161
- Owens, G.C., see Shochat, S. (681) 21
- Packham, N.K., Mansfield, R.W. and Barber, J.  
Action of cyanide on the photosynthetic water-splitting process (681) 538
- Pailotin, G., see Vermeglio, A. (681) 32
- Palmer, G., see T'sai, A.-L. (681) 484
- Pančoška, P., see Hladík, J. (681) 263
- Pedersen, J.Z., see Ford, R.C. (681) 145
- Quaegebeur, J.-P., see Setif, P. (681) 345
- Rackovsky, S. and Scher, H.  
Effect of neighboring charges and external fields on photosynthetic electron transfer (681) 152
- Roisin, M.P. and Henry, J.P.  
Purification and reconstitution of the  $^{32}\text{P}$ -ATP exchange activity of bovine chromaffin granule membrane (681) 292
- Rulfs, J. and Aprille, J.R.  
Adenine nucleotide pool size, adenine nucleotide translocase activity and respiratory activity in newborn rabbit liver mitochondria (681) 300
- Samuilov, V.D., see Kazennova, N.V. (681) 512
- Sane, P.V., see Desai, T.S. (681) 383
- Satre, M., see Klein, G. (681) 226
- Scher, H., see Rackovsky, S. (681) 152
- Schmedding, D.J.M., see Albracht, S.P.J. (681) 330
- Scott, R.D., see Armston, A.E. (681) 429
- Seibert, M. and Kendall-Tobias, M.W.  
Photoelectrochemical properties of electrodes coated with photoactive-membrane vesicles isolated from photosynthetic bacteria (681) 504
- Selman, B.R., see Kneusel, R.E. (681) 337
- Setif, P., Quaegebeur, J.-P. and Mathis, P.  
Primary processes in Photosystem I. Identification and decay kinetics of the P-700 triplet state (681) 345
- Severina, I.I.  
Nystatin-induced increase in photocurrent in the system 'bacteriorhodopsin proteoliposome/bilayer planar membrane' (681) 311
- Shahak, Y., see Admon, A. (681) 405
- Shavit, N., see Bar-Zvi, D. (681) 451
- Sherman, L., see Guikema, J. (681) 440
- Shochat, S., Owens, G.C., Hubert, P. and Ohad, I.  
The dichlorophenyldimethylurea-binding site in thylakoids of *Chlamydomonas reinhardtii*. Role of Photosystem II reaction center and phosphorylation of the 32–35 kilodalton polypeptide in the formation of the high-affinity binding site (681) 21
- Slater, E.C., see Albracht, S.P.J. (681) 330
- Slater, E.C., see De Vries, S. (681) 41
- Slater, E.C., see Marres, C.A.M. (681) 323
- Sofrová, D., see Hladík, J. (681) 263
- Sorgato, M.C., Galiazzi, F., Valente, M., Cavallini, L. and Ferguson, S.J.  
Hydrolysis of ITP generates a membrane potential in sub-mitochondrial particles (681) 319
- Stemler, A., see Jursinic, P. (681) 419
- Stillman, M.J., see Frackowiak, D. (681) 273
- Stouthamer, A.H., see Van Wielink, J.E. (681) 177
- Swarthoff, T., Kramer, H.J.M. and Ames, J.  
Thin-layer chromatography of pigments of the green photosynthetic bacterium *Prosthecochloris aestuarii* (681) 354
- Swarthoff, T., see Kramer, H.J.M. (681) 359
- Sykes, A.G., see Armstrong, F.A. (681) 161
- Tatake, V.G., see Desai, T.S. (681) 383
- Terpstra, W.  
Studies on chlorophyllase. The mechanism of the action of lecithin liposomes on enzyme activity and the function of the carbohydrate moiety of the enzyme (681) 233
- Tiede, D.M., Mueller, P. and Dutton, D.L.  
Spectrophotometric and voltage clamp characterization of monolayers of bacterial photosynthetic reaction centers (681) 191

- Tiemann, R. and Witt, H.T.  
Salt dependence of the electrical potential at the photosynthetic membrane in steady-state light and its structural consequence (681) 202
- T'sai, A.-L. and Palmer, G.  
Purification and characterization of highly purified cytochrome *b* from Complex III of baker's yeast (681) 484
- Ueng, S.-H., see Li, Y.-S. (681) 469
- Valente, M., see Sorgato, M.C. (681) 319
- Valle, E.M., Carrillo, N. and Vallejos, R.H.  
Functional sulfhydryl groups of ferredoxin-NADP<sup>+</sup> oxidoreductase (681) 412
- Vallejos, R.H., see Valle, E.M. (681) 412
- Van der Zwet, G.P., see Den Blanken, H.J. (681) 375
- Van Gelder, B.F., see König, B.W. (681) 54
- Van Gelder, B.F., see Verheul, F.E.A.M. (681) 118
- Van Houten, J., see Green, B.R. (681) 248
- Van Rensen, J.J.S., see Vermaas, W.F.J. (681) 242
- Van Wielink, J.E., Oltmann, L.E., Leeuwerik, F.J., De Hollander, J.A. and Stouthamer, A.H.  
A method for in situ characterization of *b*- and *c*-type cytochromes in *Escherichia coli* and in Complex III from beef heart mitochondria by combined spectrum deconvolution and potentiometric analysis (681) 177
- Veerman, E.C.I., see König, B.W. (681) 54
- Verheul, F.E.A.M., Draijer, J.W., Muijsers, A.O. and Van Gelder, B.F.  
The reactivity of thiol groups in bovine heart cytochrome *c* oxidase towards 5,5'-dithiobis(2-nitrobenzoic acid) (681) 118
- Vermaas, W.F.J., Van Rensen, J.J.S. and Govindjee  
The interaction between bicarbonate and the herbicide ioxynil in the thylakoid membrane and the effects of amino acid modification on bicarbonate action (681) 242
- Vermeglio, A. and Paillotin, G.  
Structure of *Rhodospseudomonas viridis* reaction centers. Absorption and photoselection at low temperature (681) 32
- Vernotte, C., Briantais, J.-M. and Maison-Peteri, B.  
Analysis of the kinetics of the cation-induced increase in Photosystem II fluorescence in isolated thylakoids (681) 11
- Vignais, P.M., see Hallenbeck, P.C. (681) 168
- Vignais, P.M., Henry, M.F., Berlier, Y. and Lespinat, P.A.  
Effect of pH on H-<sup>2</sup>H exchange, H<sub>2</sub> production and H<sub>2</sub> uptake, catalysed by the membrane-bound hydrogenase of *Paracoccus denitrificans* (681) 519
- Vignais, P.V., see Klein, G. (681) 226
- Warden, J.T., see Golbeck, J.H. (681) 77
- Wartenberg, A., see Heinze, B. (681) 212
- Wiemken, V. and Bachofen, R.  
Probing the topology of proteins in the chromatophore membrane of *Rhodospirillum rubrum* G-9 with proteinase K (681) 72
- Witt, H.T., see Tiemann, R. (681) 202
- Wu, L.N.Y. and Fisher, R.R.  
Modification of bovine heart mitochondrial transhydrogenase with tetranitromethane (681) 388
- Yamanaka, T., see Fukumori, Y. (681) 305
- Zacci, G., see Klein, G. (681) 226
- Zumft, W.G. and Frunzke, K.  
Discrimination of ascorbate-dependent nonenzymatic and enzymatic, membrane-bound reduction of nitric oxide in denitrifying *Pseudomonas perfectomarinus* (681) 459