

SUBJECT INDEX

- ADP
Studies on the stabilization of and oxidative phosphorylation system. I. Resistance of a phosphorylating system of submitochondrial particles to trypsin, due to phosphorylation of ——— (Luzikof et al.) (253) 46
- F-Actin
Effect of temperature on interaction between ——— and tropomyosin (Tanaka, Oosawa) (253) 274
- α -Actinin
Effect of ——— on actin viscosity (Holmes et al.) (253) 240
- Actin viscosity
Effect of α -actinin on ——— (Holmes, et al.) (253) 240
- Aerobiosis
Redox environment and microbial physiology. I. The transition from anaerobiosis to ——— in continuous cultures of facultative anaerobes (Wimpenny, Necklen) (253) 352
- Aldehyde dehydrogenase
Induction of ——— in a mitochondrial fraction (Horton) (253) 514
- Anaerobiosis
Redox environment and microbial physiology. I. The transition from ——— to aerobiosis in continuous cultures of facultative anaerobes (Wimpenny, Necklen) (253) 352
- Anabaena cylindrica
Physiological electron donor systems to the nitrogenase of the blue-green alga ——— (Smith et al.) (253) 104
- ATPase
Synthesis of 2-(dansylamino) ethyl triphosphate and its properties as a fluorescent substrate of heavy meromyosin ——— (Onodera, Yagi) (253) 254
- ATP-synthesizing enzyme
Photosynthetic phosphorylation in *Chlamydomonas reinhardtii*: Effects of a mutation altering an ———. (Saro et al.) (253) 437
- Azotobacter vinelandii*
Two-iron ferredoxins in spinach, parsley, pig adrenal cortex, ——— and *Clostridium pasteurianum*: Studies by magnetic field Mössbauer spectroscopy (Dunham et al.) (253) 134
- Bacteriochlorophyll
Anomalous energy transfer behaviour of light absorbed by ——— in several photosynthetic bacteria (Ebrey) (253) 385
- Brain cortex
Spectral changes in respiratory intermediates of ——— in response to depolarizing pulses (Cummins) (235) 39
- Brain cortex
Spectrophotometric measurements of metabolic responses in isolated rat ——— (Cummins, Bull) (253) 29
- Chlorophyll a/chlorophyll b ratios
Sensitive fluorescence method for the determination of ——— (Boardman, Thorne) (253) 222
- Chlorophyll-protein complexes
Photosystem I and II ——— of higher plant chloroplasts (Kung, Thornber) (253) 285
- Chloroplasts
Effects of lipase on spinach and *Chlamydomonas* ——— (Okayama et al.) (253) 476
- Chloroplasts
Photosystem I and II chlorophyll-protein complexes of higher plant ——— (Kung, Thornber) (253) 285
- Chloroplast fragments
Photosystem II activity of ——— lacking P700 (Malkin) (253) 421
- Chloroplast grana
Action spectra of Photosystem I and Photosystem II in spinach ——— and stroma lamellae (Sane, Park) (253) 208
- Chloroplast structural proteins
Physico chemical study of ——— from *Zea mays* L. (Lagoutte, Duranton) (253) 232
- Chromaffin granules
Cytochrome b_{561} of the bovine adrenal ———. A high potential b-type cytochrome (Flatmark, Terland) (235) 487
- Chromatium
Iron-containing proteins in ———. II. Purification and properties of cholate-solubilized cytochrome complex (Kennel, Kamen) (253) 153
- Chromatium
Thermodynamics of the primary and secondary photochemical reactions in ——— (Case, Parson) (253) 187
- Chromatium D
Photosynthetic reaction center transients, P435 and P424, in ——— (Seibert, DeVault) (253) 396
- Clostridium pasteurianum*
Two-iron ferredoxins in spinach, parsley, pig adrenal cortex, *Azotobacter vinelandii*, and ———: Studies by magnetic field Mössbauer spectroscopy (Dunham et al.) (253) 134
- Crithidia fasciculata
Purification and properties of cytochrome c_{555} from a protozoan, ——— (Hill et al.) (253) 78

- Cytochrome b
Properties of three ——— like species in mitochondria and sub mitochondrial particles (Wikström) (253) 332
- Cytochromes b
Spectral properties of the ——— in intact mitochondria (Sato et al.) (253) 88
- Cytochrome b₅ reductase
A high molecular weight form of NADH- ——— from ox liver microsomes (Panfili et al.) (253) 323
- Cytochrome b₅₆₁
—— of the bovine adrenal chromaffin granules. A high potential b-type cytochrome (Flatmark, Terland) (253) 487
- Cytochromes c
Structural studies of modified ——— by nuclear magnetic resonance spectroscopy (Wüthrich et al.) (253) 98
- Cytochrome C-550
Destruction of ——— by ultraviolet radiation (Erixon, Butler) (253) 483
- Cytochrome c₅₅₅
Purification and properties of ——— from a protozoan, *Crithidia fasciculata* (Hill et al.) (253) 78
- Cytochrome complex
Iron-containing proteins in Chromatium. II. Purification and properties of cholate-solubilized ——— (Kennel, Kamen) (253) 153
- Cytochrome f
Light driven redox changes of ——— and the development of Photosystems I and II during greening of bean leaves (Hiller, Boardman) (253) 449
- 2-(Dansylamino) ethyl triphosphate
Synthesis of ——— and its properties as a fluorescent substrate of heavy meromyosin-ATPase (Onodera, Yagi) (253) 254
- 1,5-Diphenylcarbazone
Disproportionation of ———. A new reaction catalysed by Photosystem I (Shneyou, Avron) (253) 412
- Electron carriers
Pathways of intracellular hydrogen transport in the Walker carcinosarcoma 256. II. Observations on oxidoreduction changes of ——— in slices (Cittadini et al.) (253) 314
- Electron donor
Physiological ——— systems to the nitrogenase of the blue-green alga *Anabaena cylindrica* (Smith et al.) (253) 104
- Electron-nuclear double resonance
Iron ——— (ENDOR) of two-iron ferredoxins from spinach, parsley, pig adrenal cortex and *Pseudomonas putida* (Fritz et al.) (253) 110
- Electron transport
Pathways of intracellular hydrogen transport in the Walker carcinosarcoma 256. I. The intramitochondrial ——— and the translocation of reducing equivalents across the mitochondrial membrane (Galeotti et al.) (253) 303
- Energy transfer
Anomalous ——— behaviour of light absorbed by bacteriochlorophyll in several photosynthetic bacteria (Ebrey) (253) 385
- Fatty acids
Inhibition of α -oxobutyrate utilization by ——— in rat liver mitochondria (Ciman et al.) (253) 24
- Fatty acid oxidation
—— in mitochondria isolated from rat submandibular salivary glands (Horak, Pritchard) (253) 12
- Ferredoxins
Iron electron-nuclear double resonance (ENDOR) of two-iron ——— from spinach, parsley, pig adrenal cortex and *Pseudomonas putida* (Fritz et al.) (253) 110
- Ferredoxins
Structure of the iron-sulphur complex in the two-iron ———. (Dunham et al.) (253) 373
- Ferredoxins
Two-iron ——— in spinach, parsley, pig adrenal cortex, *Azotobacter vinelandii*, and *Clostridium pasteurianum*: Studies by magnetic field Mössbauer spectroscopy (Dunham et al.) (253) 134
- Flavin
Effect of isotopic substitution on the electron spin resonance spectra of ——— and flavoprotein free radicals (Crespi et al.) (253) 509
- Flavoprotein
Effect of isotopic substitution on the electron spin resonance spectra of flavin and ——— free radicals (Crespi et al.) (253) 509
- Fluorescence
Distribution of variable ——— among subchloroplast fractions (Park et al.) (253) 204
- Fluorescence method
Sensitive ——— for the determination of chlorophyll a/chlorophyll b ratios (Boardman, Thorne) (253) 222
- Greening
Light driven redox changes of cytochrome f and the development of Photosystems I and II during ——— of bean leaves (Hiller, Boardman) (253) 449
- Greening
—— of etiolated bean leaves. III. Multiple light/dark step photoconversion processes (Thorne) (253) 459
- Haemoproteins
Electron paramagnetic resonance (EPR) studies on the nature of ——— in nitrite and nitric oxide reduction (Cox Jr. et al.) (253) 290
- Hydrogen transport
Pathways of intracellular ——— in the Walker carcinosarcoma 256. I. The intramitochondrial electron transport and the translocation of reducing equivalents across the mitochondrial membrane (Galeotti et al.) (253) 303

- Hydrogen transport
Pathways of intracellular ——— in the Walker carcinosarcoma 256. II. Observations on oxidoreduction changes of electron carriers in slices (Cittadini et al.) (253) 314
- β -Hydroxyethyl-2,4-dinitrophenyl disulphide
Characteristics of myosin modified by ——— in the presence of pyrophosphate (Kakol) (253) 266
- Hydroxylamine
Action of ——— in the red alga *Porphyridium cruentum* (Mohanty, et al.) (253) 213
- Iron
——— electron-nuclear double resonance (ENDOR) of two-iron ferredoxins from spinach, parsley, pig adrenal cortex and *Pseudomonas putida* (Fritz et al.) (253) 110
- Iron-sulphur complex
Structure of the ——— in the two-iron ferredoxins (Dunham et al.) (253) 373
- Lipase
Effects of ——— on spinach and *Chlamydomonas chloroplasts* (Okayama et al.) (253) 476
- Manganese
Photoactivation of the ——— catalyst of oxygen evolution. I. Biochemical and kinetic aspects (Cheniae, Martin) (253) 167
- Manganese
Photoactivation of the ——— catalyst of oxygen evolution II. A two-quantum mechanism (Radmer, Cheniae) (253) 182
- Membrane
Freeze-fracture faces of inner and outer ——— of mitochondria (Melnick, Packer) (253) 503
- Meromyosin-ATPase
Synthesis of 2-(dansylamino) ethyl triphosphate and its properties as a fluorescent substrate of heavy ——— (Onodera, Yagi) (253) 254
- Metabolic responses
Spectrophotometric measurements of ——— in isolated rat brain cortex (Cummins, Bull) (253) 29
- Microsomes
A high molecular weight form of NADH-cytochrome b_5 reductase from ox liver ——— (Panfili et al.) (253) 323
- Mitochondria
Electron paramagnetic resonance of molybdenum in rat liver and in rat liver ——— (Peisach et al.) (253) 58
- Mitochondria
Fatty acid oxidation in ——— isolated from rat submandibular salivary glands (Horak, Pritchard) (253) 12
- Mitochondria
Freeze-fracture faces of inner and outer membranes of ——— (Melnick, Packer) (253) 503
- Mitochondria
Inhibition of α -oxobutyrate utilization by fatty acids in rat liver ——— (Ciman et al.) (253) 24
- Mitochondria
Oxidative phosphorylation in Moniezia muscle ——— (Cheah) (253) 1
- Mitochondria
Properties of three cytochrome b-like species in ——— and sub mitochondrial particles (Wikström) (253) 332
- Mitochondria
Spectral properties of the b cytochromes in intact ——— (Sato et al.) (253) 88
- Mitochondrial membrane
Pathways of intracellular hydrogen transport in the Walker carcinosarcoma 256. I. The intramitochondrial electron transport and the translocation of reducing equivalents across the ——— (Galeotti et al.) (253) 303
- Mitochondrial respiratory chain proteins
Changes in ——— during perinatal development. Evidence of the importance of environmental oxygen tension (Hallman) (253) 360
- Molybdenum
Electron paramagnetic resonance of ——— in rat liver and in rat liver mitochondria (Peisach et al.) (253) 58
- Myosin
Characteristics of ——— modified by β -hydroxyethyl-2,4-dinitrophenyl disulphide in the presence of pyrophosphate (Kakol) (253) 266
- NADH-cytochrome b_5 reductase
High molecular weight form of ——— from ox liver microsomes (Panfili et al.) (253) 323
- Nitrite and nitric oxide reduction
Electron paramagnetic resonance (EPR) studies on the nature of haemoproteins in ——— (Cox Jr. et al.) (253) 290
- Nitric oxide reduction
Electron paramagnetic resonance (EPR) studies on the nature of haemoproteins in nitrite and ——— (Cox Jr. et al.) (253) 290
- Nitrogenase
Compatibility of the components of ——— from soybean bacteroids and free-living nitrogen-fixing bacteria (Murphy, Koch) (253) 295
- Nitrogenase
Physiological electron donor system to the ——— of the blue-green alga *Anabaena cylindrica* (Smith et al.) (253) 104
- Nitrogen-fixing bacteria
Compatibility of the components of nitrogenase from soybean bacteroids and free-living ——— (Murphy, Koch) (253) 295
- Oxidative metabolism
Effect of aggregating agents on ——— of rabbit platelets (McElroy et al.) (253) 64
- Oxidative phosphorylation
——— in Moniezia muscle mitochondria (Cheah) (253) 1
- Oxidative phosphorylation

- Studies on the stabilization of an ——— system. I. Resistance of a phosphorylating system of submitochondrial particles to trypsin, due to phosphorylation of ADP (Luzikof et al.) (253) 46
- α -Oxobutyrate
Inhibition of ——— utilization by fatty acids in rat liver mitochondria (Ciman et al.) (253) 24
- Oxygen evolution
Flash activation kinetics and photosynthetic unit size for ——— using 3-nsec light flashes (Weiss Jr. et al.) (253) 298
- Oxygen evolution
Photoactivation of the manganese catalyst of ———. I. Biochemical and kinetic aspects (Cheniae, Martin) (253) 167
- Oxygen evolution
Photoactivation of the manganese catalyst of ———. II. A two-quantum mechanism (Radmer, Cheniae) (253) 182
- Photochemical reactions
Thermodynamics of the primary and secondary ——— in Chromatium (Case, Parson) (253) 187
- Photoconversion processes
Greening of etiolated bean leaves. III. Multiple light/dark step ——— (Thorne) (253) 459
- Photosynthetic unit
Flash activation kinetics and ——— size for oxygen evolution using 3-nsec light flashes (Weiss Jr. et al.) (253) 298
- Photosynthetic bacteria
Anomalous energy transfer behaviour of light absorbed by bacteriochlorophyll in several ——— (Ebrey et al.) (253) 385
- Photosynthetic phosphorylation
——— in *Chlamydomonas reinhardtii*: Effect of a mutation altering an ATP-synthesizing enzyme (Sato et al.) (253) 437
- Photosynthetic reaction center
——— transients, P₄₃₅ and P₄₂₄, in Chromatium D (Seibert, DeVault) (253) 396
- Photosystem I
Action spectra of ——— and Photosystem II in spinach chloroplast grana and stroma lamellae (Sane, Park) (253) 208
- Photosystem I
Disproportionation of 1,5-diphenylcarbazone. A new reaction catalysed by ———. (Shneyour, Avron) (253) 412
- Photosystem I and II
——— chlorophyll-protein complexes of higher plant chloroplasts (Kung, Thornber) (253) 285
- Photosystems I and II
Light driven redox changes of cytochrome f and the development of ——— during greening of bean leaves (Hiller, Boardman) (253) 449
- Photosystem II
Action spectra of photosystem I and ——— in spinach chloroplast grana and stroma lamellae (Sane, Park) (253) 208
- Photosystem II
Trypsin inhibition of ——— (Selman, Bannister) (253) 428
- Photosystem II activity
——— of chloroplast fragments lacking P700 (Malkin) (253) 421
- Platelets
Effect of aggregating agents on oxidative metabolism of rabbit ——— (Mc Elroy et al.) (253) 64
- Porphyridium cruentum
Action of hydroxylamine in the red alga ——— (Mohanty et al.) (253) 213
- Proteins
Physico chemical study of chloroplast structural ——— from *Zea mays* L. (Lagoutte, Duranton) (253) 232
- Pseudomonas putida*
Iron electron-nuclear double resonance (ENDOR) of two-iron ferredoxins from spinach, parsley, pig adrenal cortex and ——— (Fritz et al.) (253) 110
- Respiratory chain proteins
Changes in mitochondrial ——— during perinatal development. Evidence of the importance of environmental oxygen tension (Hallman) (253) 360
- Redox environment
——— and microbial physiology. I. The transition from anaerobiosis to aerobiosis in continuous cultures of facultative anaerobes (Wimpenny, Necklen) (253) 352
- Respiratory intermediates
Spectral changes in ——— of brain cortex in response to depolarizing pulses (Cummins) (253) 39
- Subchloroplast fractions
Distribution of variable fluorescence among ——— (Park et al.) (253) 204
- Succinate dehydrogenase
Magnetic susceptibility of ———: The 4-iron preparation (Hollocher, Ehrenberg) (253) 346
- Submitochondrial particles
Studies on the stabilization of an oxidative phosphorylation system. I. Resistance of a phosphorylating system of ——— to trypsin, due to phosphorylation of ADP (Luzikof et al.) (253) 46
- Stroma lamellae
Action spectra of Photosystem I and Photosystem II in spinach chloroplast grana and ——— (Sane, Park) (253) 208
- Structural proteins
Physico chemical study of chloroplast ——— from *Zea mays* L. (Lagoutte, Duranton) (253) 232
- Tropomyosin
Effect of temperature on interaction between F-actin and ——— (Tanaka, Oosawa) (253) 274