



Cumulative Contents

Information for Contributors

Short sequence-paper

Cloning of a cDNA encoding the small subunit of cytochrome b_{558} (cybS) of mitochondrial fumarate reductase (complex II) from adult *Ascaris suum*

F. Saruta, H. Hirawake, S. Takamiya, Y.-C. Ma, T. Aoki, K. Sekimizu, S. Kojima and K. Kita (Japan)

Reviews

'As prepared' forms of fully oxidised haem/Cu terminal oxidases

A.J. Moody (UK)

Molecular biology of the lactose carrier of *Escherichia coli*

M.F. Varela and T.H. Wilson (USA)

Regular papers

On the role of exchangeable hydrogen bonds for the kinetics of $P680^{++} Q_A^{-\cdot}$ formation and $P680^{++}$ Pheo $^{-\cdot}$ recombination in photosystem II

S. Vasil'ev, A. Bergmann, H. Redlin, H.-J. Eichler and G. Renger (Russia, Germany)

Proton leak and control of oxidative phosphorylation in perfused, resting rat skeletal muscle

D.F.S. Rolfe and M.D. Brand (UK)

H^+ /ATP coupling ratio at the unmodulated CF_0CF_1 -ATP synthase determined by proton flux measurements

S. Berry and B. Rumberg (Germany)

Purification and characterization of the succinate dehydrogenase complex and CO-reactive *b*-type cytochromes from the facultative alkaliphile *Bacillus firmus* OF4

R. Gilmour and T.A. Krulwich (USA)

Some physical properties of an unusual C-phyco-cyanin isolated from a photosynthetic thermophile

M.R. Edwards, R. MacColl and L.E. Eisele (USA)

Differences in nucleotide compartmentation and energy state in isolated and in situ rat heart: assessment by ^{31}P -NMR spectroscopy

J.P. Williams and J.P. Headrick (Australia)

vii DCCD-sensitive proton permeability of bacterial photosynthetic membranes. Cross-reconstitution studies with purified bovine heart F_0 subunits
F. Zanotti, R. Casadio, C. Perrucci and F. Guerrieri (Italy)

80

Information for Contributors

vii

Review

Mitochondrial oxidative phosphorylation changes in the life span. Molecular aspects and physiopathological implications

S. Papa (Italy)

87

6

Regular Papers

21 Magnetic interaction between $Q_A^{-\cdot}$ and the triplet state of the primary donor in modified reaction centers of the photosynthetic bacterium *Rhodobacter sphaeroides* R26

M.K. Bosch, P. Gast, E.M. Franken, G. Zwanenburg, P.J. Hore and A.J. Hoff (The Netherlands, UK)

106

35

Two distinct forms of the peridinin-chlorophyll *a*-protein from *Amphidinium carterae*

F.P. Sharples, P.M. Wrench, K. Ou and R.G. Hiller (Australia)

117

45

A critical evaluation of in situ measurement of mitochondrial electrical potentials in single hepatocytes

J.J. Uhl, J.-Y. Chatton, S. Chen and J.W. Stucki (Switzerland)

124

51

Evidence for the presence of two rotenone-insensitive NAD(P)H dehydrogenases on the inner surface of the inner membrane of potato tuber mitochondria

A.M.P. Melo, T.H. Roberts and I.M. Møller (Sweden)

133

57

The distances from tyrosine D to redox-active components on the donor side of Photosystem II determined by pulsed electron-electron double resonance

H. Hara, A. Kawamori, A.V. Astashkin and T.-a. Ono (Japan)

140

71

Origins of the low yield of chlorophyll a fluorescence induced by single turnover flash in spinach thylakoids <i>G. Samson and D. Bruce (Canada)</i>	147	Manganese as a cosubstrate for the phosphorylation of the sarcoplasmic reticulum Ca-dependent adenosine triphosphatase with orthophosphate <i>D.A. González, G.L. Alonso and J.-J. Lacapère (Argentina, France)</i>	188
The <i>Escherichia coli</i> F ₁ -ATPase mutant β Tyr-297 \rightarrow Cys: functional studies and asymmetry of the enzyme under various nucleotide conditions based on reaction of the introduced Cys with <i>N</i> -ethylmaleimide and 7-chloro-4-nitrobenzofurazan <i>M.A. Haughton and R.A. Capaldi (USA)</i>	154	Structural factors of rotenone required for inhibition of various NADH-ubiquinone oxidoreductases <i>H. Ueno, H. Miyoshi, M. Inoue, Y. Niidome and H. Iwamura (Japan)</i>	195
Differential effects of creatine depletion on the regulation of enzyme activities and on creatine-stimulated mitochondrial respiration in skeletal muscle, heart, and brain <i>E. O'Gorman, G. Beutner, T. Wallimann and D. Brdiczka (Switzerland, Germany)</i>	161	A study on the transport and dissimilatory reduction of nitrate in <i>Paracoccus denitrificans</i> using viologen dyes as electron donors <i>I. Kučera and P. Kaplan (Czech Republic)</i>	203
Information for Contributors	vii	Interactions between chromophores in reaction centers of purple bacteria. A reinterpretation of the triplet-minus-singlet spectra of <i>Rhodobacter sphaeroides</i> R26 and <i>Rhodopseudomonas viridis</i> <i>J. Vrieze and A.J. Hoff (The Netherlands)</i>	210
Rapid report		An LD-ADMR study on reaction centers of the LH(L131) and LH(M160) hydrogen-bonding mutants of <i>Rhodobacter sphaeroides</i> <i>J. Vrieze, J.C. Williams, J.P. Allen and A.J. Hoff (The Netherlands, USA)</i>	221
Rapid isolation of bacterial photosynthetic reaction centers with an engineered poly-histidine tag <i>J.O. Goldsmith and S.G. Boxer (USA)</i>	171	The triplet state of the primary donor in reaction centers of the HL(L173) and HL(M202) heterodimer mutants of <i>Rhodobacter sphaeroides</i> <i>J. Vrieze, C.C. Schenck and A.J. Hoff (The Netherlands, USA)</i>	229
Short sequence-paper		Mechanism of photoinhibition in pea thylakoids: effects of irradiance level and pH <i>G. Schansker and J.J.S. Van Rensen (The Netherlands)</i>	239
Cloning and sequence analysis of the dimethylsulfoxide reductase structural gene from <i>Rhodobacter capsulatus</i> <i>A.L. Shaw, G.R. Hanson and A.G. McEwan (Australia)</i>	176	Some characteristics of cytochrome <i>f</i> in the cyanobacterium <i>Phormidium laminosum</i> : its sequence and charge properties in the reaction with plastocyanin <i>M.J. Wagner, J.C.L. Packer, C.J. Howe and D.S. Bendall (UK)</i>	246
Regular papers		Cumulative Contents, Vol. 1276	253
Effect of polyunsaturated fatty acids deficiency on oxidative phosphorylation in rat liver mitochondria <i>E.M. Fontaine, M. Moussa, A. Devin, J. Garcia, J. Ghisolfi, M. Rigoulet and X.M. Leverve (France)</i>	181	Author Index	255