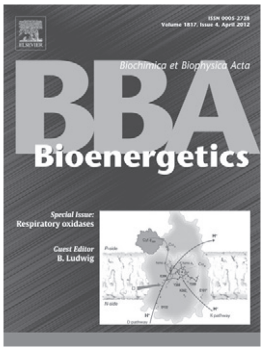
Biochimica et Biophysica Acta

BBA

Volume 1817, Issue 4, April 2012



Front cover image: A schematic structural representation of subunits I (brown) and II (blue) of the *Rhodobacter sphaeroides* aa_3 cytochrome *c* oxidase (PDB ID: 1M56). These two subunits contain all the redox-active co-factors, Cu_A, heme *a* and the catalytic site, which consists of heme a_3 and Cu_B. Amino-acid residues and water molecules (red spheres) defining the K and D proton pathways are shown. During turnover, electrons are transferred from cytochrome *c* to Cu_A, heme *a* and the catalytic site as indicated by the red arrow. Oxygen enters to the catalytic site through a channel located in the membrane-spanning part of the protein as indicated by the bold arrow. Protons are transferred along the black arrows. A proton-exit pathway has not been identified and the black arrow above the hemes is shown at an arbitrary location. Figure courtesy of C. von Ballmoos. For further details, see corresponding article on p. 650 of this issue.

Publication information: *Biochimica et Biophysica Acta (Bioenergetics)* (ISSN 0005-2728). For 2012, Volume 1817 (12 issues) is scheduled for publication. Subscription prices are available upon request from the Publisher, from the Elsevier Customer Service Department nearest you, or from this journal's website (http://www. elsevier.com/locate/bbabio). Further information is available on this journal and other Elsevier products through Elsevier's website (http://www.elsevier.com). Subscriptions are accepted on a prepaid basis only and are entered on a calendar year basis. Issues are sent by standard mail (surface within Europe, air delivery outside Europe). Priority rates are available upon request. Claims for missing issues should be made within six months of the date of dispatch.
USA mailing notice: *Biochimica et Biophysica Acta (Bioenergetics)* (ISSN 0005-2728) is published monthly by Elsevier B.V. (Radarweg 29, 1043 NX Amsterdam, The Netherlands). Periodicals postage paid at Rahway, NJ 07065-9998, USA, and at additional mailing offices. **USA POSTMASTER:** Send change of address to *Biochimica et Biophysica Acta (Bioenergetics)*, Elsevier Customer Service Department, 3251 Riverport Lane, Maryland Heights, MO 63043, USA. **AIRFREIGHT AND MAILING** in the USA by Mercury International Limited, 365 Blair Road, Avenel, NJ 07001-2231, USA. **Orders, claims, and journal enquiries:** please contact the Elsevier Customer Service Department nearest you: **St. Louis:** Elsevier Customer Service Department, 3251 Riverport Lane, Maryland Heights, MO 63043, USA; phone: (877) 8397126 [toll free within the USA]; (+1) (314) 4478878 [outside the USA]; fax: (+1) (314) 4478077; e-mail: JournalCustomerService-usa@elsevier.com.
Oxford: Elsevier Customer Service Department, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, UK; phone: (+44) (1865) 843434; fax: (+44) (1865) 843970; e-mail: JournalsCustomerServiceEMEA@elsevier.com.
Tokyo: Elsevier Customer Service Department, 4F Higashi-Azabu, 1-Chome Bldg, 1-9-15 Higashi-Azabu, Minato-ku, Tokyo 106-0044, Japan; phone: (+81) (3) 5561 5037; fax: (+81) (3) 5561 5047; e-mail: JournalsCustomerServiceJapan@elsevier.com.
Singapore: Elsevier Customer Service Department, 3 Killiney Road, #08-01 Winsland House I, Singapore 239519; phone: (+65) 63490222; fax: (+65) 67331510; e-mail: JournalsCustomerServiceAPAC@elsevier.com
Author enquires: For enquiries relating to the submission of articles (including electronic submission) please visit this journal's homepage at http://www.elsevier.com/locate/bbamem. Contact details for questions arising after acceptance of an article, especially those relating to proofs, will be provided by the publisher. You can track accepted articles at http://www. elsevier.com/trackarticle. You can also check our Author FAQs at http://www.elsevier.com/ authorFAQ and/or contact Customer Support via http://support.elsevier.com/.
Advertising information: If you are interested in advertising or other commercial opportunities please e-mail Commercialsales@elsevier.com and your enquiry will be passed to the correct person who will respond to you within 48 hours.

Printed by Polestar Wheatons Ltd., Exeter, United Kingdom
∞ The paper used in this publication meets the requirements of ANSI/NISO Z39.48-1992 (Permanence of Paper)

BIOENERGETICS

ELSEVIER

Amsterdam – Boston – London – New York – Oxford – Paris –
Philadelphia – San Diego – St. Louis