371 This Week in Science

Editorial

373 Frontiers in Chemistry: J. I. BRAUMAN

Letters


News & Comment

383 Sverdlovski: Anthrax Capital AIDS in the U.S.S.R.
385 Science Focuses on the Next Presidency
386 Whistle-Blowers Air Cases at House Hearings
388 Briefing: Academy Opens Center in California More NSF Fellowships British and French Get Research Prescriptions EPA Will Keep Old SO2 Rules What's in an Acronym?

Research News

390 Cloud over Parkinson's Therapy Ethical Issues Raised
393 No Longer Willful, Gaia Becomes Respectable A Loop Between Plant and Cloud
396 On the Advantage of Being Different

Articles

Frontiers in Chemistry

415 Voltammetry with Microscopic Electrodes in New Domains: R. M. WIGHTMAN
426 The Interplay Between Chemistry and Biology in the Design of Enzymatic Catalysts: P. G. SCHULTZ
433 Probing Structure-Function Relations in Heme-Containing Oxygenases and Peroxidases: J. H. DAWSON
440 Intramolecular Long-Distance Electron Transfer in Organic Molecules: G. L. CLOSS and J. R. MILLER
447 The Vibrational Spectroscopy and Dynamics of Weakly Bound Neutral Complexes: R. E. MILLER
460 Chemical Waves: J. ROSS, S. C. MÜLLER, C. VIDAL

* SCIENCE is published weekly on Friday, except the last week in December, and with an extra issue in February by the American Association for the Advancement of Science, 1333 H Street, NW, Washington, DC 20005. Second-class postage (publication No. 484466) paid at Washington, DC, and at an additional entry. Now combined with The Scientific Monthly Copyright © 1988 by the American Association for the Advancement of Science. The title SCIENCE is a registered trademark of the AAAS. Domestic individual membership and subscription (51 issues): $65. Domestic institutional subscription (51 issues): $98. Foreign postage extra: Canada $32, other (surface mail) $27, air-surface via Amsterdam $95. First class, airmail, school-year, and student rates on request. Single copies $3.00 ($5.50 by mail); back issues $4.50 ($5.00 by mail); Biotechnology issue, $5.50 ($6 by mail); classroom rates on request; Guide to Biotechnology Products and Instruments $16 ($17 by mail). Change of address: allow 8 weeks, giving old and new addresses and seven-digit account number. Authorization to photocopy material for internal or personal use under circumstances not falling within the fair use provisions of the Copyright Act is granted by AAAS to libraries and other users registered with the Copyright Clearance Center (CCC) Transactional Reporting Service, provided that the base fee of $1 per copy plus $0.10 per page is paid directly to CCC, 21 Congress Street, Salem, Massachusetts 01970. The identification code for Science is 0036-8075/83 $1.00. Postmaster: Send Form 3579 to Science, 1333 H Street, NW, Washington, DC 20005. Science is indexed in the Reader's Guide to Periodical Literature and in several specialized indexes. The American Association for the Advancement of Science was founded in 1848 and incorporated in 1874. Its objects are to further the work of scientists, to facilitate cooperation among them, to foster scientific freedom and responsibility, to improve the effectiveness of science in the promotion of human welfare, and to increase public understanding and appreciation of the importance and promise of the methods of science in human progress.
The singular properties of the core region and the rotation center of the spiral wave in the Belousov-Zhabotinsky reaction are shown in three-dimensional perspective. The image was obtained by an overlay of a large number of single snapshots of spiral rotation covering three full revolutions. It presents the upper envelope of the concentration variation, that is the maximum level of oxidation of the catalyst ferrion reached at each point in space. The envelope is shown in arbitrary pseudo colors. See page 460. [S. C. Müller, Th. Plessner, and B. Hess, Max-Planck-Institut für Ernährungphysiologie, D-4600 Dortmund, Federal Republic of Germany]