NEWS & COMMENT

Klausner Follows Own Advice at NCI 912
Research, Education, and Iron Control 913

Could Defense Accelerator Be a Windfall for Science? 914

Shuttle Mission to Seek Antimatter 915
Physics Meeting Unites the Two Chinas—Briefly 916

RESEARCH NEWS

Missing Alzheimer’s Gene Found 917
New Hominid Crowds the Field 918
HERA Physicists Finally Put Flesh on a Putative Particle 919
Polymer Cells Achieve New Efficiency 920
New Angle for Classic Tale of Respiratory Protein and Oxygen 921
Ancient DNA: The Trials and Tribulations of Cracking the Prehistoric Code 923

DEPARTMENTS

THIS WEEK IN SCIENCE 901
EDITORIAL

Degrees of Freedom D. S. Doering 903

LETTERS

Changing Priorities?: J. J. Duderstadt; E. M. Henley 905
• Nuclear Waste Storage at Yucca Mountain: C. D. Bowman and F. Venneri • Malathion and Alternatives: M. Chrisman, P. Kurtz, R. V. Dowell; R. F. Service • Mutations Not Sufficient for Carcinogenesis?: B. Bridges

RESEARCH ARTICLES

Control of Electron Transfer Between the L- and M-Sides of Photosynthetic Reaction Centers 940

PERSPECTIVE

The Mechanism of Biphasic GABA Responses 928
N. Lambert and L. Grover

ARTICLES

Emplacement of Cretaceous-Tertiary Boundary Shocked Quartz from Chixculub Crater
W. Alvarez, P. Claeyts, S. W. Kieffer

Resonance Light Scattering: A New Technique for Studying Chromophore Aggregation
R. F. Pasternack and P. J. Collings

Board of Reviewing Editors

Frederick W. Alt
Don L. Anderson
Michael Ashburner
Stephen J. Benkovic
Alar Bernstein
David E. Bloom
Pati Borst
Henry R. Bourne
Michael S. Brown
James E. Bull
Kathryn Calame
C. Thomas Caskey
Dennis W. Cho
David Clapham
John M. Coffin
F. Fleming Crom
Paul J. Crutzen
James E. Dahlberg
Robert De Simone
Paul T. Englund
Richard G. Fairbanks
Douglas T. Fearon
Harry A. Fozzard
David Glaph Im
Paul J. Crutzen
James E. Dahlberg
Robert De Simone
Paul T. Englund
Tomas Hockett
Eric F. Johnson
Stephen M. Kosikyn
Michael LaBarbera
Nicole LeDouarn
Charles S. Levinggs III
Alexander Levitkina
Harvey F. Lodish
Richard Losick
Reinhard Lührmann
Diane Mathis
Anthony R. Means
Shigetada Nakashima
Roger A. Nicoll
Stuart L. Penn
Yoshinouchi Pocker
Dennis A. Powers
Ralph S. Quatrano
Martin Raff
V. Ramanathan
Diane C. Rees
T. M. Rice
David C. Rubie
Erkki Ruoslahti
Gottfried Schatz
Jozef Schell
Ronald H. Schwartz
Terence J. Sejnowski
Ellen Solomon
Thomas A. Steitz
Michael P. Styrsky
Robert T. N. Tjian
Erni R. Unanue
George J. Vermeij
Bert Vogelstein
Arthur Weiss
Zena Werb
George M. Whitesides
Owen N. Witte
William A. Wulf
Diagonally opposed images of carbon monoxide (CO) bound to (upper left) and photodissociated from (lower right) the heme in myoglobin. The orientation of CO was determined with time-resolved polarized infrared spectroscopy. As illustrated schematically, a visible laser pulse (red) photodissociates the CO from the heme and an infrared pulse (gray), arriving 10^-10 seconds later, probes the infrared spectrum of CO. See page 962 and the related News story on page 921. Illustration: M. Lim, T. Jackson, and P. Anfinrud

Crystal Structure of a Conserved Protease That Binds DNA: The Bloemymcin Hydrolase, Gal6 945
L. Joshua-Tor, H. E. Xu, S. A. Johnston, D. C. Rees

REPORTS

Dark Auroral Oval on Saturn Discovered in Hubble Space Telescope Ultraviolet Images 951
L. B. Jaffel, V. Leers, B. R. Sandel

Urban Leakage of Liquefied Petroleum Gas and Its Impact on Mexico City Air Quality 953
D. R. Blake and F. S. Rowland

Polar Standstill of the Mid-Cretaceous Pacific Plate and Its Geodynamic Implications 956
J. A. Tarduno and W. W. Sager

Protein Reaction Kinetics in a Room-Temperature Glass 959
S. J. Hagen, J. Hofrichter, W. A. Eaton

Binding of CO to Myoglobin from a Heme Pocket Docking Site to Form Nearly Linear Fe–C–O 962
M. Lim, T. A. Jackson, P. A. Anfinrud

Boron Nitride Nanotubes 966

Association of Flavin Adenine Dinucleotide with the Arabidopsis Blue Light Receptor CRY1 968

A Familial Alzheimer’s Disease Locus on Chromosome 1 970

Candidate Gene for the Chromosome 1 Familial Alzheimer’s Disease Locus 973

Ionic Mechanisms of Neuronal Excitation by Inhibitory GABA_A Receptors 977
K. J. Staley, B. L. Soldo, W. R. Proctor

Recurrent Excitation in Neocortical Circuits 981
R. J. Douglas, C. Koch, M. Mahowald, K. A. C. Martin, H. H. Suarez

Object-Centered Direction Selectivity in the Macaque Supplementary Eye Field 985
C. R. Olson and S. N. Gettner

TECHNICAL COMMENTS

Non-specific DNA Bending and the Specificity of Protein-DNA Interactions 989
A. Schepartz; D. A. Erie and C. Bustamante

AAAS Board of Directors

Francisco J. Ayala
Retiring President, Chairman

Rita R. Colwell
President

Jane Lubchenco
President-elect

William A. Lester Jr.
Simon A. Levin
Michael J. Novacek

Anna C. Roosevelt
Alan Schenfeld
Jean E. Taylor
Chang-Lin Tien
Nancy S. Wexler

William T. Golden
Treasurer

Richard S. Nicholson
Executive Officer

SCIENCE (ISSN 0036-8075) is published weekly on Friday, except the last week in December, by the American Association for the Advancement of Science, 1333 H Street, NW, Washington, DC 20005. Second-class postage (publication No. 484460) paid at Washington, DC, and additional mailing offices. Copyright © 1995 by the American Association for the Advancement of Science. Title SCIENCE is a registered trademark of the AAAS. Domestic individual membership and subscription (51 issues): $97 ($50 allocated to subscription). Domestic institutional membership and subscription (51 issues): $228. Foreign postage extra: Mexico, Caribbean (surface mail) $55, other countries (air assist delivery) $93. First class, airmail, student and emeritus rates on request. Canadian rates with GST available upon request, GST #1254 88122. Printed in the U.S.A.

Change of address: allow 6 weeks, giving old and new addresses and 11-digit account number. Postmaster: Send change of address to SCIENCE, P.O. Box 2003, Marion, OH 43060-2003. Single copy sales: $7.00 per issue prepaid includes surface postage; bulk rates on request. Authorization to photocopy material for internal or personal use, or use under the fair use provisions of the Copyright Act is granted to libraries and other users registered with the Copyright Clearance Center (CCC) Transactional Reporting Service, provided that $3.00 per article is paid directly to CCC: 27 Congress Street, Salem, MA 01970. The identification code for Science's 0036-8075/93 $3.00. Science is indexed in the Reader's Guide to Periodical Literature and in several specialized indexes.